CONSOLIDATED NUCLEAR SECURITY LLC

CONTRACT NO. DE-NA0001942

Conformed Contract

Current through Modification 0363

PART I – THE SCHEDULE

SECTION A

SOLICITATION/OFFER AND AWARD

SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING DX-A2 / DO-H1* ~~DO E-2~~ (MOD 0334)	PAGE OF PAGES 1 / 333

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
DE-NA0001942	DE-SOL-0001458	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)	12/14/2011	See Section B

7. ISSUED BY CODE MOSD	8. ADDRESS OFFER TO (If other than Item 7)
U.S. DEPARTMENT OF ENERGY NATIONAL NUCLEAR SECURITY ADMINISTRATION M&O CONTRACTING (NA-APM-113-1) PO BOX 5400, ALBUQUERQUE, NM 87185-5400	U.S. DEPARTMENT OF ENERGY NATIONAL NUCLEAR SECURITY ADMINISTRATION ATTN: DANIEL J. SAIZ CONTRACTING OFFICER MAIL STOP: MOSB PO BOX 5400, ALBUQUERQUE, NM 87185-5400

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and (number and kind of copies are specified in Section L) copies for furnishing the supplies and/or services in the Schedule will be received at the place specified in item 8, until **1400** hour local time on **March 13, 2012.**

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE (Include area code) (NO COLLECT CALLS)	C. E-MAIL ADDRESS
	Daniel J. Saiz **Contracting Officer**	**(505) 845-5848**	**daniel.saiz@nnsa.doe.gov**

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√	B	SUPPLIES OR SERVICES AND PRICES/COSTS	14 pgs			*PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACH.*	
√	C	DESCRIPTION/SPECS./WORK STATEMENT	1 pg	√	J	LIST OF ATTACHMENTS	94 pgs
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OFFER (*Must be fully completed by offeror*)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 270 calendar days from the date of receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %
Not Applicable				

14. ACKNOWLEDGEMENTS OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
	001	2/2/12	003	3/26/12
	002	2/24/12	004	8/17/12

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
	Consolidated Nuclear Security, LLC **5275 Westview Drive, Frederick, MD 21703-8306**		**John Howanitz** **Vice President, Bechtel National, Inc.**

15B. TELEPHONE NO. (Include area code)	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE	17. SIGNATURE	18. OFFER DATE
(301) 401-1775	☐	[redacted]	**March 13, 2012**

AWARD (*To be completed by Government*)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
	SEE SECTION B	See Clause B-2

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	23. SUBMIT INVOICES TO ADDRESS SHOWN IN	ITEM
Not Applicable ☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )	*Not Applicable*	

24. ADMINISTERED BY (If other than Item 7) CODE	25. PAYMENT WILL BE MADE BY CODE
See Section G Clause entitled "Government Contacts"	See Section I Clause entitled "Payments and Advances"

26. NAME OF CONTRACTING OFFICER (Type or print)	27. UNITED STATES OF AMERICA	28. AWARD DATE
Leticia Y. Barela	[redacted] (Signature of Contracting Officer)	January 8, 2013

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION IS UNUSABLE

33-134

STANDARD FORM 33 (REV. 9-97)
Prescribed by GSA FAR (48 CFR) 53.214(c)

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

CLIN 0001 MANAGEMENT AND OPERATION (M&O) OF Y12/PX

CLIN 0001A CONTRACT TRANSITION: COST REIMBURSEMENT, NO FEE *[MOD 0015]*

Services being Acquired under this Contract Line Item Number (CLIN): The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely transition from the existing contracts to the new contract to operate the Y-12 National Security Complex (Y-12) and the Pantex Plant (PX), (hereinafter referred to as "the Sites").

The initial transition period of four months for the Y-12/PX Contract consolidation will be on a cost reimbursement basis and the estimated cost is $22,600,000. There will be no fee earned or paid during transition, however, cost savings initiatives may begin in accordance with B-2(a)(3)."

CLIN 0001B BASE TERM (1 JUL 2014 – 30 SEP 2019) *[MODs 0015, 0052, 0055, 0062, 0084, 0099, 0100, 0121, 0128, 0148, 0162, 0165, 0211]*

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, material, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely complete all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001H and CLIN 0002. The fee available is:

Performance Period	Fixed Fee (FF)	Available Award Fee (AF)	Total Available Fee (FF+AF)	Total Fee Earned	Estimated Cost Savings Incentive Fee (CSIF)	CSIF Earned
1 Jul 2014 – 30 Sep 2015	$29,949,750	$19,966,500	$49,916,250	$41,330,657	$21,439,000	$18,599,621
1 Oct 2015 – 30 Sep 2016	NA	$39,933,000	$39,933,000	$30,648,578	$42,104,000	$18,293,442
1 Oct 2016 – 30 Sep 2017	NA	$39,933,000	$39,933,000	$34,921,409	$28,930,000	$12,639,224

1 Oct 2017 – 30 Sep 2018	NA	$39,933,000	$39,933,000	$35,340,705	$40,093,000	$27,993,078
1 Oct 2018 – 30 Sep 2019	NA	$39,933,000	$39,933,000	$28,252,598	$27,443,000	$30,300,292

[*Performance Period 1 (Jul 2014 – 30 Sep 2015) is a 15-month period of performance and Performance Period 10 (Oct 2023 – 30 Jun 2024) will be a 9 month period of performance to align with Government Fiscal Year.]

CLIN 0001C OPTION I TERM (1 OCT 2019 – 30 SEP 2021) ***[MODs 0015, 0121, 0130, 0148, 0165, 0185, 0215]***

Services being Acquired under this CLIN: Pursuant to the exercise of this option via Modification No. 0130 dated March 29, 2018, the Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services (except as may be furnished by the Government), and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001H, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003. The fee available under CLIN 0001C is:

Performance Period	Fixed Fee (FF)	Available Award Fee (AF)	Total Available Fee (FF + AF)	Total Fee Earned	Estimated CSIF	CSIF Earned
1 Oct 2019 – 30 Sep 2020	NA	$39,933,000	$39,933,000	$35,121,074	$25,400,000	TBD
1 Oct 2020 – 30 Sep 2021	NA	$39,933,000	$39,933,000		$13,633,000	

CLIN 0001D OPTION II TERM (1 OCT 2021 – 30 SEP 2023) ***[MODs 0015, 0121, 0148, 0165, 0185]***

Services being Acquired under this CLIN: If this option is exercised the Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services (except as may be furnished by the Government), and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001H, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other

construction projects that the parties mutually agree will be performed under CLIN 0003. The fee available under CLIN 0001D is:

Performance Period	Fixed Fee (FF)	Available Award Fee (AF)	Total Available Fee (FF + AF)	Total Fee Earned	Estimated CSIF	CSIF Earned
1 Oct 2021 – 30 Sep 2022	NA	$39,933,000	$39,933,000		$14,070,000	
1 Oct 2022 – 30 Sep 2023	NA	$39,933,000	$39,933,000		$13,515,000	

CLIN 0001E OPTION III TERM (1 OCT 2023 – 30 JUN 2024) ***[MODs 0015, 0121, 0148, 0165, 0185]***

Services being Acquired under this CLIN: If this option is exercised the Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services (except as may be furnished by the Government), and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001H, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects that the parties mutually agree will be performed under CLIN 0003. The fee available under CLIN 0001E is:

Performance Period	Fixed Fee (FF)	Available Award Fee (AF)	Total Available Fee (FF + AF)	Total Fee Earned	Estimated CSIF	CSIF Earned
1 Oct 2023 – 30 Jun 2024	NA	$29,949,750	$29,949,750		$21,914,000	

CLIN 0001F TRANSITION OF SAVANNAH RIVER TRITIUM OPERATIONS (SRTO) OPTION INTO THE CONTRACT

Services being Acquired under this CLIN: If this option is exercised, the Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely transition SRTO from the incumbent contract to this M&O contract.

The transition period for incorporation of the SRTO effort of six months will be on a cost reimbursement basis and the estimated cost is *$ TBD****. There will be no fee earned or paid for SRTO transition activities.

[**The estimated cost will be established with the Contractor at the time of option exercise and prior to commencement of the Transition Term.]

CLIN 0001G OPTION: SAVANNAH RIVER TRITIUM OPERATIONS (SRTO)

Services being Acquired under this CLIN: If this option is exercised, the Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely manage and operate the SRTO. If this option is exercised, the contract will be modified to revise the services being acquired and to increase the fee available amounts to add SRTO effort to CLIN 0001B, 0001C, 0001D, and 0001E.

CLIN 0001H STRATEGIC PARTNERSHIP PROJECTS /OTHER REIMBURSABLE WORK *[MODS 0015, 0052, 0063, 0084, 0128, 0130, 0148, 0162, 0191, 0211, 0215]*

Services being Acquired under this CLIN: The Contractor shall, in accordance with Section J, Appendix A, Chapter II, 1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer.

Performance Period	Estimated Cost	Estimated Available Fixed Fee	Estimated Cost + Estimated Available Fixed Fee	Actual Cost	Actual Fee Earned
1 Jul 2014 – 30 Sep 2015	$41,161,000	$1,235,000	$42,396,000	$38,030,466.67	$1,140,914
1 Oct 2015 – 30 Sep 2016	$43,934,854	$1,318,046	$45,252,900	$37,088,447.33	$1,112,653.42
1 Oct 2016 – 30 Sep 2017	$38,900,000	$1,167,000	$40,067,000	$39,068,943	$1,172,068.29
1 Oct 2017 – 30 Sep 2018	$47,545,633	$1,426,369	$48,972,002	$33,268,200	$998,046
1 Oct 2018 – 30 Sep 2019	$49,456,722	$1,483,701	$50,940,423	$44,507,703	$1,335,231
OPTION I	**********	**********	**********		**********
1 Oct 2019 - 30 Sep 2020	$66,783,791	$2,065,478	$68,849,269	$50,759,839	$1,522,795
1 Oct 2020 - 30 Sep 2021	$81,432,341	$2,518,526	$83,950,867		
OPTION II	**********	**********	**********		**********
1 Oct 2021 - 30 Sep 2022					

1 Oct 2022 - 30 Sep 2023					
OPTION III	**********	**********	**********		**********
1 Oct 2023 - 30 Jun 2024					

[Table to be completed by the Government in accordance with Section B, B-2(a)(4).]

CLIN 0001I MANAGEMENT AND OPERATION (M&O) OF Y12/PX (OCTOBER 1, 2021 – SEPTEMBER 30, 2022) ***[MOD 0236, 0252]***

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001J, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003. The period of performance for this CLIN is 1 year as specified in the table below. The fee available under this CLIN 0001I for the period 10/1/2021 to 3/31/2022 is:

Performance Period	Fixed Fee (FF)	Available Award Fee (AF)	Total Available Fee (FF + AF)	Total Earned Award Fee	Cost Savings Fixed Fee	Total Earned Fee
October 2021	$ 697,000	$ 3,571,000	$ 4,268,000	TBD	$ 679,000	TBD
November 2021	$ 880,000	$ 4,511,000	$ 5,391,000	TBD	$ 856,000	TBD
December 2021	$ 919,000	$ 4,710,000	$ 5,629,000	TBD	$ 894,000	TBD
January 2022	$ 826,000	$ 4,232,000	$ 5,058,000	TBD	$ 803,000	TBD
February 2022	$ 870,000	$ 4,460,000	$ 5,330,000	TBD	$847,000	TBD
March 2022	$ 1,041,000	$ 5,337,000	$6,378,000	TBD	$ 1,013,000	TBD
Total	$ 5,233,000	$ 26,821,000	$ 32,054,000	TBD	$ 5,092,000	TBD

The fee available for the period 4/1/2022 to 09/30/2022 is:

Performance Period	Fixed Fee (FF)	Award Fee (AF)	Total Available Fee (FF+AF)	Total Earned AF	Total Earned Fee
April 2022	$899,000	$4,605,000	$5,504,000	TBD	TBD
May 2022	$903,000	$4,627,000	$5,530,000	TBD	TBD
June 2022	$995,000	$5,100,000	$6,095,000	TBD	TBD
July 2022	$905,000	$4,638,000	$5,543,000	TBD	TBD
August 2022	$972,000	$4,982,000	$5,954,000	TBD	TBD
September 2022	$1,207,000	$6,185,000	$7,392,000	TBD	TBD
Total	$5,881,000	$30,137,000	$36,018,000	TBD	TBD

CLIN 0001J STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK *[MOD 0236, 0252]*

Services being Acquired under this CLIN: The Contractor shall, in accordance with Section J, Appendix A, Chapter II, 1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer.

The period of performance for this CLIN is 1 year as specified in the tables below. The fixed fee under CLIN 0001J for the period 10/1/2021 to 3/31/2022 is:

CLIN 0001J STRATEGIC PARTNERSHIP PROJECTS /OTHER REIMBURSABLE WORK			
Period	**Fee Base**	**Fixed Fee**	**Fee Base + Fixed Fee**
October 2021	$3,938,000	$98,000	$4,036,000
November 2021	$3,821,000	$96,000	$3,917,000
December 2021	$2,421,000	$61,000	$2,482,000
January 2022	$3,224,000	$81,000	$3,305,000
February 2022	$2,924,000	$73,000	$2,997,000
March 2022	$4,136,000	$103,000	$4,239,000
Total	$20,464,000	$512,000	$20,976,000

The fee available for the period 4/1/2022 to 09/30/2022 is:

CLIN 0001J STRATEGIC PARTNERSHIP PROJECTS /OTHER REIMBURSABLE WORK			
Period	**Fee Base**	**Fixed Fee**	**Fee Base + Fixed Fee**
April 2022	$2,730,000	$68,000	$2,798,000
May 2022	$2,530,000	$63,000	$2,593,000
June 2022	$3,376,000	$84,000	$3,460,000
July 2022	$4,018,000	$100,000	$4,118,000
August 2022	$2,695,000	$67,000	$2,762,000
September 2022	$4,294,000	$107,000	$4,401,000
Total	**$19,643,000**	**$489,000**	**$20,132,000**

CLIN 0001K MANAGEMENT & OPERATION (M&O) OF Y12/PX (OCT 1, 2022 – SEP 30, 2024); MANAGEMENT & OPERATION OF PX (OCT 1, 2024 - OCT 31, 2024); MANAGEMENT & OPERATION (M&O) OF Y12 (OCT 1, 2024 – SEP 30, 2025) ***[MOD 0269, 0327, 0330]***

Note: Site Separation Activities will be considered fully executed only when both parties agree that all deliverables and activities required for each site to operate independently have been completed.

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001O, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003.

For the period October 1, 2022 – September 30, 2024, the Fee Rate shall not exceed 3.75% applied to the AFB for M&O Activities and 1% applied to the AFB for Site Separation Activities for a total available fee rate of 4.75%.

For the period October 1, 2024 – October 31, 2024, the fee attributable to the management and operation of Pantex is a total Fixed Fee amount of $3,402,845 based on the application of a combined 4.75% (3.75% for M&O activities and 1% for Site Separation activities) to an estimated 1-month prorated AFB. The estimated prorated AFB is calculated using the Pantex site split representing the President's Budget Request (i.e., DOE Laboratory Tables) for

the applicable contract period (i.e., fiscal year 2025) less an 11.4% exclusion rate for non-fee bearing costs and less the 4.75% fee both of which are included in the site split.

For the period October 1, 2024 – September 30, 2025, the Fee Rate shall not exceed 3.75% of the AFB attributable to the management and operation of Y12. Should Site Separation Activities continue during this option's performance period, an additional monthly prorated fee percent of 1% shall be provided based on a mutually agreed- to schedule duration (e.g., if the parties mutually agree to a three-month completion schedule for Site Separation Activities, the applicable available award fee would be .01*(3/12)*AFB).

The award fee and fixed fee available under CLIN 0001K is:

Performance Period	**AFB (Fee Base)**	**Available Award Fee (AF)**	**Fixed Fee**	**Total Fee Earned**
01 Oct 2022 – 30 Sep 2023	$2,253,962,386	$107,063,213	N/A	$95,948,361
01 Oct 2023 – 30 Sep 2024	TBD in accordance with AFB	TBD in accordance with B-10 ANNUAL FEE BASELINE	N/A	
*01 Oct 2024 – 31 Oct 2024 (PX only)	N/A	N/A	$3,402,845	
**01 Oct 2024 – 30 Sept 2025 (Y-12 only)	TBD in accordance with AFB	TBD in accordance with B-10 ANNUAL FEE BASELINE	N/A	

*NOTE: That portion attributable to PX operation only
**NOTE: That portion attributable to Y-12 operation only

CLIN 0001L OPTION FOR MANAGEMENT & OPERATION (M&O) OF PX (OCT 1, 2024 – SEP 30, 2025) ***[MOD 0269]***

Note: Site Separation Activities will be considered fully executed only when both parties agree that all deliverables and activities required for each site to operate independently have been completed.

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001P CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003.

The Fee Rate shall be 3.75% for management and operation of the Pantex Plant. Should Site Separation Activities continue during this option's performance period, an additional monthly prorated fee percent of 1% shall be provided based on a mutually agreed-to schedule duration (e.g., if the parties mutually agree to a three-month completion schedule for Site Separation Activities, the applicable available award fee would be .01*(3/12)*AFB). The award fee available under CLIN 0001L is:

Performance Period	**AFB (Fee Base)**	**Available Award Fee (AF)**	**Total Fee Earned**
*01 Oct 2024 – 30 Sep 2025	TBD in accordance with AFB	TBD in accordance with B-10 ANNUAL FEE BASELINE	TBD

*NOTE: Fee represents PX operation only

CLIN 0001M OPTION FOR MANAGEMENT & OPERATION (M&O) OF Y12 (OCT 1, 2025 – SEP 30, 2026) ***[MOD 0269, Exercised 0327]***

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001Q, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003.

For Y12 Only Operations, the Fee Rate shall not exceed 3.75%. The award fee available under CLIN 0001M is:

Performance Period	**AFB (Fee Base)**	**Available Award Fee (AF)**	**Total Fee Earned**
01 Oct 2025 – 30 Sep 2026	TBD in accordance with AFB	TBD in accordance with B-10 ANNUAL FEE BASELINE	TBD

CLIN 0001N OPTION FOR MANAGEMENT & OPERATION (M&O) OF Y12 (OCT 1, 2026 – SEP 30, 2027) ***[MOD 0269, Exercised 0327]***

Services being Acquired under this CLIN: The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely completing all work in accordance with Section J, Appendix A, Statement of Work, except for the work covered by CLIN 0001R, CLIN 0002 and CLIN 0003. This CLIN includes construction projects other than: (1) Capital Construction

Projects as defined in Clause H-8 of this Contract, and (2) any other construction projects the parties mutually agree will be performed under CLIN 0003.

For Y12 Only Operations, the Fee Rate shall not exceed 3.75%. The award fee available under CLIN 0001N is:

Performance Period	AFB (Fee Base)	Available Award Fee (AF)	Total Fee Earned
01 Oct 2026 – 30 Sep 2027	TBD in accordance with AFB	TBD in accordance with B-10 ANNUAL FEE BASELINE	TBD

CLIN 0001O STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR Y12/PX (OCT 1, 2022 – SEP 30, 2024); STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR PX (OCT 1, 2024-OCT 31, 2024); STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR Y12 (OCT 1, 2024 – SEP 30, 2025) ***[MOD 0269, 0327]***

The Contractor shall, in accordance with Section J, Appendix A, Chapter II, 1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer. The fixed fee rate shall not exceed 3%.

The fee available under CLIN 0001O is:

Performance Period	Fee Base	Fixed Fee (FF)	Fee Base + Fixed Fee
01 Oct 2022 – 30 Sep 2023	$56,285,141	$1,688,554	$57,973,695
01 Oct 2023 – 30 Sep 2024	TBD	TBD	TBD
*01 Oct 2024 – 31 Oct 2024	$558,239	$16,747	$574,986
**01 Oct 2024 – 30 Sep 2025	TBD	TBD	TBD

*Note: SPP work for PX operation only
**Note: SPP work for Y-12 operation only

CLIN 0001P OPTION FOR STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR PX (OCT 1, 2024 – SEP 30, 2025) ***[MOD 0269]***

The Contractor shall, in accordance with Section J, Appendix A, Chapter II, 1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer. The fixed fee rate shall not exceed 3%.

The fee available under CLIN 0001P is:

Performance Period	**Fee Base**	**Fixed Fee (FF)**	**Fee Base + Fixed Fee**
*01 Oct 2024 – 30 Sep 2025	TBD	TBD	TBD

*Note: SPP work for PX operation only

CLIN 0001Q OPTION FOR STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR Y12 (OCT 1, 2025 – SEP 30, 2026) ***[MOD 0269, Exercised 0327]***

The Contractor shall, in accordance with Section J, Appendix A, Chapter II, 1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer. The fixed fee rate shall not exceed 3%.

The fee available under CLIN 0001Q is:

Performance Period	**Fee Base**	**Fixed Fee (FF)**	**Fee Base + Fixed Fee**
01 Oct 2025 – 30 Sep 2026	TBD	TBD	TBD

*Note: SPP work for Y-12 operation only

CLIN 0001R OPTION FOR STRATEGIC PARTNERSHIP PROJECTS/OTHER REIMBURSABLE WORK FOR Y12 (OCT 1, 2026 – SEP 30, 2027) ***[MOD 0269, Exercised 0327]***

The Contractor shall, in accordance with Section J, Appendix A, Chapter II,1.3 Strategic Partnership Projects/Other Reimbursable Work, and all other the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be

furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely perform all Strategic Partnership Projects and Other Reimbursable Work efforts as directed by the Contracting Officer. The fixed fee rate shall not exceed 3%.

The fee available under CLIN 0001R is:

Performance Period	**Fee Base**	**Fixed Fee (FF)**	**Fee Base + Fixed Fee**
01 Oct 2026 – 30 Sep 2027	TBD	TBD	TBD

*Note: SPP work for Y-12 operation only

CLIN 0002 URANIUM PROCESSING FACILITY (UPF) PROJECT MANAGEMENT *[MODs 0015, 0075, 0130, 0201]*

Services being Acquired under this CLIN: The Contractor shall, in accordance with Section J, Appendix A, Chapter IV, and all other applicable terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services, (except as may be furnished by the Government) and otherwise do all things necessary for, or incident to effectively, efficiently, and safely ensure the completion of UPF.

The cost and fee associated with awarding this CLIN shall be accounted for and reported separately and completely severable from all other parts of this Contract. The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this CLIN in the next 60 calendar days, when added to all costs previously incurred, will exceed 75 percent of the total amount obligated to this CLIN, as specified in Section B-5 of this Contract.

The UPF Fee Plan and Supplementary Annexes in Section J, Appendix B-2 shall be the basis upon which the Government determines the amount of Contractor Earned Fee for this CLIN.

(a) The UPF Project is being executed by means of seven (7) authorized Subprojects via a combination of Critical Decision (CD) approvals: 1) Main Process Building, 2) Salvage & Accountability Building, 3) Process Support Facilities, 4) Mechanical Electrical Building, 5) Substation, 6) Site Infrastructure and Services, and 7) Site Readiness.

(b) The period of performance for the UPF Project is July 1, 2014, through December 31, 2025.

(c) The values shown below represent the negotiated rollup of all seven (7) authorized subprojects, inclusive of design and other authorized scope, as established in the UPF Fee Plan and Supplemental Annexes.

ESTIMATED COST	$4,421,467,972.00
AVAILABLE FEE	$220,676,707.00
CLIN 0002 ESTIMATED CONTRACT	$4,642,144,679.00

(d) The estimated contract price for the UPF Project represents a role up of the following SUBCLINS, including available fee, subject to a final fee determination by the Government.

SUBCLIN 0002A MAIN PROCESS BUILDING SUBPROJECT ***[MODs 0015, 0075, 0201]***

(a) This SUB-CLIN 0002A for Main Process Building (MPB) Subproject utilizes a cost- reimbursement type Contract with terms for an incentive fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan – Master Annex.

(b) The MPB will house casting, special oxide production, furnace, repackaging, high-equity calcination, and non-destructive analysis required to safely operate the UPF facility.

(c) The period of performance for MPB is March 21, 2018, through December 31, 2025.

ESTIMATED COST	$3,156,684,835.00
AVAILABLE FEE	$157,834,241.00
SUB-CLIN 0002A ESTIMATED CONTRACT	$3,314,519,076.00

(d) The estimated contract price for MPB Subproject represents the authorized MPB scope and combined Contract Budget Base (CBB), including available fee, subject to a final fee determination by the Government.

(e) The MPB combined CBB includes MPB work to go, Design Management Plan (DMP), and Site Preparation and Long Lead Procurements (SP/LL).

DESIGN MANAGEMENT PLAN

- The DMP scope supports the UPF Project by requiring completion of the Conceptual, Preliminary, and Final design, including all the associated safety

basis documents required for achieving design completion requirements and critical decisions, before nuclear facility construction authorization.

- The period of performance for DMP is July 1, 2014, through February 16, 2018.
- The values below represent the negotiated DMP values as revised in Annex 1.

ESTIMATED COST	$898,599,119.00
AVAILABLE FEE	$44,929,956.00
DMP ESTIMATED CONTRACT	$943,529,075.00

SITE PREPARATION AND LONG LEAD PROCUREMENT

- The SP/LL scope supports the UPF Project by requiring completion of key critical-path site preparation construction work and long lead procurements required for subsequent nuclear facility construction.
- The period of performance for SP/LL is June 28, 2016, through October 15, 2018.
- The values below represent the negotiated SP/LL values as revised in Annex 4.

ESTIMATED COST	$109,472,415.00
AVAILABLE FEE	$5,473,620.00
SP/LL ESTIMATED CONTRACT	$114,946,035.00

SUBCLIN 0002B SALVAGE AND ACCOUNTABILITY BUIDLING SUBPROJECT ***[MODs 0015, 0075, 0201]***

(a) This SUB-CLIN 0002B for Salvage and Accountability Building (SAB) Subproject utilizes a cost-reimbursement type Contract with terms for an incentive fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan – Master Annex.

(b) The SAB will house low equity calcination and leaching, chemical recovery, maintenance, non-destructive analysis, and decontamination areas.

(c) The period of performance for SAB is March 21, 2018, through December 31, 2025.

ESTIMATED COST	$881,352,771.00

AVAILABLE FEE	$44,067,639.00
SUB-CLIN 0002A ESTIMATED CONTRACT	$925,420,410.00

(d) The estimated contract price for SAB Subproject represents the authorized SAB scope and Contract Budget Base (CBB), including available fee, subject to a final fee determination by the Government.

SUBCLIN 0002C PROCESS SUPPORT FACILITIES SUBPROJECT *[MODs 0075, 0201]*

(a) This SUB-CLIN 0002C for Process Support Facilities (PSF) Subproject utilizes a cost- reimbursement type Contract with terms for an incentive fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan – Master Annex.

(b) The PSF will house chilled and demineralized water, instrument air, and chemical and gas storage needed to support the MPB and SAB.

(c) The period of performance for PSF is March 21, 2018, through December 31, 2025.

ESTIMATED COST	$110,961,381.00
AVAILABLE FEE	$5,548,069.00
SUB-CLIN 0002C ESTIMATED CONTRACT	$116,509,450.00

(c) The estimated contract price for PSF Subproject represents the authorized PSF scope and Budget Base (CBB), including available fee, subject to a final fee determination by the Government.

SUBCLIN 0002D MECHANICAL ELECTRICAL BUILDING SUBPROJECT *[MODs 0075, 0201]*

(a) This SUB-CLIN 0002D for Mechanical Electrical Building (MEB) Subproject utilizes a cost-reimbursement type Contract with terms for an incentive fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan – Master Annex.

(b) The MEB will house utility support systems for both the MPB and the SAB.

(c) The period of performance for MEB is December 12, 2016, through January 17, 2022.

ESTIMATED COST	$229,389,865.00
AVAILABLE FEE	$11,469,493.00
SUB-CLIN 0002D ESTIMATED CONTRACT	$240,859,358.00

(d) The estimated contract price for MEB Subproject represents the authorized MEB scope and Contract Budget Base (CBB), including available fee, subject to a final fee determination by the Government.

SUBCLIN 0002E SUBSTATION SUBPROJECT *[MOD 0201]*

(a) This SUB-CLIN 0002E for Substation (SS) Subproject utilizes a cost-reimbursement type Contract with terms for a fixed fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan - Annex 5.

(b) The SS scope supports the UPF Project by requiring completion of key critical-path power requirements required for subsequent nuclear facility operation.

(c) The period of performance for SS is September 14, 2016, through June 24, 2020.

(d) The values shown below represent the negotiated SS values as established in Annex 5.

ESTIMATED COST	$5,374,177.00
FIXED FEE	$268,711.00
SUB-CLIN 0002E ESTIMATED CONTRACT	$5,642,888.00

(e) The estimated contract price for SS represents the authorized SS scope and Contract Budget Base (CBB), including fixed fee, subject to a final fee determination by the Government.

SUBCLIN 0002F SITE INFRASTRUCTURE AND SERVICES SUBPROJECT *[MOD 0201]*

(a) This SUB-CLIN 0002F for Site Infrastructure and Services (SIS) Subproject utilizes a cost reimbursement type Contract with terms for an incentive fee structure, whereby the

Contractor can earn fee in accordance with the UPF Fee Plan - Annex 3.This SUB-CLIN 0002F for Site Infrastructure and Services (SIS) Subproject utilizes a cost-incentive fee structure, whereby the fee in accordance with the UPF Fee Plan - Annex 3.

(b) The SIS scope supports the UPF Project by requiring completion of key critical-path site preparation construction work required for subsequent nuclear facility construction.

(c) The period of performance for SIS is March 16, 2015, through April 30, 2018.

(d) The values shown below represent the negotiated SIS values as revised in Annex 3.

ESTIMATED COST	$25,232,933.00
AVAILABLE FEE	$1,052,034.00
SUB-CLIN 0002F ESTIMATED CONTRACT	$26,284,967.00

(e) The estimated contract price for SIS represents the authorized SIS scope and Contract Budget Base (CBB), including available fee, subject to a final fee determination by the Government.

SUBCLIN 0002G SITE READINESS SUBPROJECT *[MOD 0201]*

(a) This SUB-CLIN 0002G for Site Readiness (SR) Subproject utilizes a cost-reimbursement type Contract with terms for a fixed fee structure, whereby the Contractor can earn fee in accordance with the UPF Fee Plan - Annex 2.

(b) The SR scope supports the UPF Project by requiring completion of key critical-path site preparation construction work required for subsequent nuclear facility construction.

(c) The period of performance for SR is July 1, 2014, through February 28, 2015.

(d) The values shown below represent the accepted SR subproject completed scope and final fee determination for all contractor earned fee.

COST	$12,472,010.00
FIXED FEE	$436,520.00
SUB-CLIN 0002G CONTRACT	$12,908,530.00

CLIN 0003 CAPITAL CONSTRUCTION PROJECTS *[MOD 0185]*

The Contractor shall, in accordance with the terms and conditions of this Contract, provide the personnel, equipment, materials, supplies, and services (except as may be furnished by the Government) and otherwise do all things necessary for, or incidental to, the efficient, effective, and safe management and/or performance of Capital Construction Projects (as defined in Clause H-8 of this Contract) under DOE O 413.3, and any other construction projects the parties mutually agree will be performed under this CLIN 0003. Each CLIN 0003 Capital Construction Project shall be identified hereunder as a Sub-CLIN and incorporated into CLIN 0003 via contract modification. The cost and fee associated with each Sub-CLIN established under CLIN 0003 shall be accounted for and reported separately and shall be completely severable from all other parts of this Contract.

B-1 CONTRACT TYPE AND VALUE *[MODS 0052 (NO CHANGE), 0075, 0084, 0091, 0136, 0155, 0157, 0165, 0185, 0191, 0236, 0252]*

This is a Performance Based Contract for the Management and Operation of DOE/NNSA facilities governed by FAR 17.6, DEAR 917.6, and DEAR Part 970. It is a Management and Operating (M&O) cost-reimbursement Contract with terms for a Fixed Fee, Award Fee, and Cost Savings Incentive Fee for CLIN 0001, and terms for a Fixed Fee and Incentive Fee for CLIN 0002. The contract types and values under CLIN 0003 shall be established as each Sub-CLIN is awarded under CLIN 0003.

The total estimated cost, excluding fee and Strategic Partnership Projects/Other Reimbursable Work related to NNSA work:

Year	Total
1	$1,775,166,000
2	$1,814,749,907
3	$2,021,030,633
4	$2,244,534,807
5	$2,631,698,436
OPTION I	
6	$2,879,573,859
7	
6-Month Extension Period (Oct 1, 2021 - Mar 31,2022)	
6-Month Extension Period (April 1, 2022 – Sept 30, 2022)	
OPTION II	Not Exercised
8	

9	
OPTION III	Not Exercised
10	

[Table to be completed by the Government during the term of the Contract.]

B-2 CONTRACT FEE STRUCTURES *[MODs 0015, 0075, 0121, 0165, 0185, 0193, 0236, 0252, 0269, 0291, 0330]*

(a) Fee Structure for CLIN 0001 ***[MODs 0121, 0165, 0193, 0236, 0252, 0269, 0291, 0330]***

(1) Definitions.

Total Available Fee = Fixed Fee + Award Fee

(2) The Total Available Fee for the Base Term of the Contract, and the option period(s), if exercised by NNSA, is shown in the tables for CLIN 0001B, 0001C, 0001D, and 0001E, including 0001G, if exercised. The Total Available Fee shall not exceed 3.5% of the FY 2011 budget ($1.33B for both Pantex Plant and Y-12, and $1.50B should SRTO option be exercised).

The Total Available Fee for 6-month extension period (October 1, 2021 – March 31, 2022), excluding Strategic Partnership/Other Reimbursable Work, is shown in the CLIN 0001I table. The Total Available Fee shall not exceed the mutually agreed upon amount reflected in the CLIN 0001I table.

The Total Available Fee for 6-month extension period (April 1, 2022 – Sept 30, 2022), excluding Strategic Partnership/Other Reimbursable Work, is shown in the CLIN 0001I table. The Total Available Fee shall not exceed the amount reflected in the CLIN 0001I table.

The Total Available Fee for period of performance beginning October 1, 2022, is shown in the above tables for CLINs 0001K, and, if exercised, 0001L, 0001M, and 0001N, respectively.

(i) Fixed Fee

The Contractor will be paid a Fixed Fee (except as identified in Section B, B-2(a)(4), Strategic Partnership Projects/Other Reimbursable Work Fixed Fee) during the first year of the Base Term in the CLIN 0001B table. No Fixed Fee will be paid for the remaining years of the Contract except as noted below for the two 6-month extension periods from October 1, 2021 - March 31, 2022 and April 1, 2022 – Sept 30, 2022.

The Contractor will be paid a fixed fee for the 6-month extension period (October 1, 2021 – March 31, 2022) as identified in the CLIN 0001I table.

The Contractor will be paid a fixed fee for the 6-month extension period (April 1, 2022 – Sept 30, 2022) as identified in the CLIN 0001I table.

The Contractor will be paid a fixed fee for the management and operation of Pantex during period October 1, 2024 – October 31, 2024, as identified in the CLIN 0001K table in accordance with I-23, DEAR 970.5232-2, Payments and Advances (Oct 2021) Alternate II (Oct 2021) Alternate IV (Dec 2000) (NNSA Class Deviation Feb 2022).

Fee rates used in support of the extension of any Pantex option period under FAR 52.217-8, Option to Extend Services, shall be the applicable fee rate(s) presented in the terms of the applicable CLIN in Section B of the contract.

(ii) Award Fee

The Contractor will be paid an Award Fee for accomplishments under the Performance Evaluation and Measurement Plan (PEMP). The Available Award Fee is reflected in the above table for CLINs 0001B, 0001C, 0001D, and 0001E, including 0001G, if exercised.

The Contractor will be paid an Award Fee for the 6-month extension period (October 1, 2021 – March 31, 2022) for accomplishments under the PEMP. The Available Award Fee for the 6-month extension period is reflected in the CLIN 0001I table.

The Contractor will be paid an Award Fee for the 6-month extension period (April 1, 2022 – Sept 30, 2022) for accomplishments under the PEMP. The Available Award Fee for this 6-month extension period is reflected in the CLIN 0001I table.

The Contractor will be paid an Award Fee for period of performance beginning October 1, 2022, for accomplishments under the Performance Evaluation and Measurement Plan (PEMP). The Available Award Fee is reflected in the above tables for CLINs 0001K, and, if exercised, 0001L, 0001M, and 0001N, respectively.

Fee rates used in support of the extension of any Y-12 option period under FAR 52.217-8, Option to Extend Services, shall be the applicable fee rate(s) presented in the terms of the applicable CLIN in Section B of the contract.

(3) Cost Savings Incentive Fee

The Contractor will be paid a Cost Savings Incentive Fee under the approved Cost Reduction Proposal (CRP) submitted in accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction". In the event savings are not sustained through FY2021, as verified by the Government, the Government is entitled to reimbursement of previously paid CSIF and will obtain it out of future fee. Payment will be made promptly but not later than 90 days after the cost baseline data and adequate records to support validation are supplied to the Government to make a decision on the share of cost savings.

Transition Term: The Contractor may begin cost savings initiatives before the CRP is approved and may be eligible for cost savings incentive fee if the terms of the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction" can be met. Cost savings initiatives before the CRP is approved could include changes in the full-time equivalent (FTE) baseline during the Transition Term, provided there is a corresponding reduction in costs. Savings will be paid in accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction".

6-Month Extension Period (October 1, 2021 – March 31, 2022): The cost saving program, as implemented under CLIN 0001B through CLIN 0001C, ends September 30, 2021. The Contractor will not be eligible to earn CSIF for the 6-month extension period from October 1, 2021 - March 31, 2022, or for any subsequent contract period. During the 6-month extension period from October 1, 2021 - March 31, 2022, the Contractor will be paid a monthly Cost Savings Fixed Fee, as negotiated, and reflected in the CLIN 00001I table above. This amount is in addition to CSIF that may be payable to CNS for FY 2021 after validation by CNS and verification by NNSA in response to the Cost Savings Validation Report. During the 6-month extension period, the Contractor agrees that it shall not take any action that increases cost or staffing levels beyond those levels set forth in the approved FY 2022 Annual Controlled Baseline (ACB), unless approved by the Contracting Officer.

(4) Strategic Partnership Projects/Other Reimbursable Work Fixed Fee ***[MOD 0165, 0236, 0252, 0269]***

The estimated cost and the available Fixed Fee for Strategic Partnership Projects/Other Reimbursable Work during the Base Term of the Contract and for each Option Term will be established by the NNSA prior to the commencement of the applicable year of the Contract and will be incorporated into the CLIN 0001H table through a modification to this Contract. The Fixed-Fee for Strategic Partnership Projects/Other Reimbursable Work will be up to 3% of the estimated cost of each project. If the work sponsor or the Government subsequently orders material changes in the amount or character of the Strategic Partnership Projects/Other Reimbursable Work, an equitable adjustment of the fee, if any, shall be made in accordance with the Contract's Section I Clause entitled "DEAR 970.5243-1, Changes." If the

Contractor anticipates the amount of estimated cost to change for Strategic Partnership Projects/Other Reimbursable Work due to new or deleted reimbursable work projects, an adjustment to the estimated cost and Strategic Partnership Projects/Other Reimbursable Work Fixed Fee for reimbursable work shall be submitted for approval by the Contracting Officer. Strategic Partnership Projects Fixed Fee is not a component of Total Available Fee under CLINS 0001B, 0001C, 0001D, 0001E and 0001G, if exercised.

A Fixed Fee for the 6-month extension period (October 1, 2021 – March 31, 2022) will be paid monthly at the amounts reflected in the in CLIN0001J table. Strategic Partnership Projects Fixed Fee is not a component of Total Available Fee under CLIN's 0001B, 0001C, or CLIN 0001I.

A Fixed Fee for the 6-month extension period (April 1, 2022 – Sept 30, 2022) will be paid monthly at the amounts reflected in the in CLIN0001J table. Strategic Partnership Projects Fixed Fee is not a component of Total Available Fee under CLIN's 0001B, 0001C, or CLIN 0001I.

A Fixed Fee for period of performance beginning October 1, 2022, will be paid monthly at the amounts reflected in the CLIN 0001O table and, if exercised, 0001P, 0001Q, and 0001R, respectively. Strategic Partnership Projects Fixed Fee is not a component of Total Available Fee under CLINs 0001B, 0001C, 0001I, 0001K, 0001L (Option), 0001M (Option), or 0001N (Option).

(5) Provisional Payment of Fee ***[MOD 0193, 0236, 0252, 0291]***

(i) The Fixed Fee for the Base Term of the Contract shall be paid monthly at the rate of one-twelfth (1/12) of the annual Fixed Fee per month. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

For the 6-month period (October 1, 2021 – March 31, 2022) the fixed fee shall be paid monthly as shown in CLIN 0001I and CLIN 0001J tables. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

For the 6-month period (April 1, 2022 – Sept 30, 2022) the fixed fee shall be paid monthly as shown in CLIN 0001I and CLIN 0001J tables. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

(ii) The Award Fee is authorized for draw down by the Contractor from the Contract's special financial institution account as follows:

(A) In monthly provisional fee payments equivalent to 3% of the Available Award Fee (with the understanding that the Contractor is authorized to draw down 51% of the total Available FY 2019 Award Fee on a provisional basis), or

(B) Upon completion of milestones or any other methodology as set forth in the Performance Evaluation and Measurement Plan and its supporting documentation; and

(C) The balance, if any, upon issuance of the Contracting Officer's notification in accordance with Section B, B-7, Performance Evaluation and Measurement Plan.

(D) If the provisional payments made above exceed the Award Fee earned or the Contractor fails to fully accomplish the objective/incentive for which it has received milestone completion or provisional payments, the Contracting Officer will determine if the Contractor is to refund all or part of the provisional fee it has received. Any refund made shall include interest. Interest will be paid at the published prime rate of the financial institution (depository) in which the special account is established or at the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563) whichever is higher, which is applicable to the period in which any unearned payments were made. Interest paid resulting from this clause is an unallowable cost.

(E) The Contractor shall remit any balance due payable to the Government in accordance with directions to be provided by the Contracting Officer.

(F) For the 6-month extension period (October 1, 2021 – March 31, 2022), the contractor is authorized to draw down 50% of total monthly available Award Fee per month shown in CLIN 0001I. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

For the 6-month extension period (April 1, 2022 – Sept 30, 2022), the contractor is authorized to draw down 50% of total monthly available Award Fee per month shown in CLIN 0001I. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

(G) In monthly provisional fee payments equivalent to 3% of the Available Award Fee for the period beginning October 1, 2022.

(iii) The Contractor is authorized semi-annual provisional payments of the Cost Savings Incentive Fee. The Contractor is authorized to be paid on March 31 and September 30 of each year of the 24-month fee sharing period. Each semiannual provisional CSIF payment may be up to 50% of the fee associated with the sustainment of savings validated by NNSA and up to 25% of the CSIF associated with that year's claimable savings from the approved CRP. If the provisional payment results in overpayment, the Contracting Officer will determine if the Contractor is to refund all of part of the provisional fee it has received. Any refund made shall include interest. Interest will be paid at the published prime rate of the financial institution (depository) in which the special account is established or at the interest rate established by the Secretary of Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563) whichever is higher, which is applicable to the period in which any unearned payments were made. Interest paid for this clause is an unallowable cost.

For the 6-month extension period (October 1, 2021 – March 31, 2022), the contractor is authorized to draw the Cost Savings Fixed Fee monthly as shown in the CLIN 0001I table. Such payment amounts are to be drawn down by the Contractor from the Contract's special financial institution account in monthly installments on the last day of each month.

(6) Unearned Fee

NNSA HQ will determine how unearned fee is reinvested in the Nuclear Security Enterprise. Unearned fee will not be available for future performance periods.

(7) Except for the conditions identified in this clause, there shall be no adjustment in the amount of the Contractor's fee by reason of differences between the FY11 budgeted cost for performance of the work under this Contract and the actual cost of performance of that work.

(b) Fee Structures for CLIN 0002 ***[MODs 0015, 0075]***

(1) Definitions

Available Fee = Unrealized Cost Objective Fee + Schedule Objective Fee.

(2) The Available Fee or Fixed Fee for CLIN 0002 scope is shown at the SUB-CLIN level for each discrete scope of work, with specific details of the fee structure included in

Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(3) Notwithstanding the Contract's Section I Clause entitled "DEAR 970.5243-1, Changes," the Contractor's proposed fee percentage (5%) is not subject to adjustment, but will be used by the Government for establishing the target performance objective, in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(4) SUB-CLIN Contract Values

(i) The estimated values in the SUB-CLIN level will be updated by the Contracting Officer by bilateral Contract modification as required to reflect any negotiated changes to the UPF Fee Plan and Supplementary Annexes.

(ii) The estimated contract price values in the SUB-CLIN level will be updated with the final contract price values by the Contracting Officer via a bilateral Contract modification after the final fee determinations are made by the Government.

(5) Provisional Payment of Fee

(i) Provisional payment of fee for CLIN 0002 shall be requested by the Contractor and approved by the Contracting Officer in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(ii) The balance of Available Fee or Fixed Fee, if any, will be paid upon issuance of the Contracting Officer's notification in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(A) If the provisional payments made above exceed the Total Earned Fee in CLIN 0002, or the Contractor fails to fully accomplish the performance objectives for which it has received provisional payments, the Contracting Officer will determine if the Contractor is to refund all or part of the provisional fee it has received.

(B) The Contractor shall remit any balance due payable to the Government in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(6) Earned Payment of Fee

(i) Earned Fee is due the Contractor by virtue of its meeting the stated performance objectives for completing the CLIN 0002 Contract requirements and deliverables entitling it to fee, in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(ii) All fee is 100% at risk until earned. How and when fee is earned will be negotiated and captured in each Annex. All fee is subject to the terms and conditions of this Contract, including any special contract requirements, in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(iii) All negotiated fee associated with the cost performance objective shall be provisional through the end of the project and/or contract, until a Final Fee Determination is made, in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(c) Fee Structures for CLIN 0003 Capital Construction Projects ***[MOD 0185]***

The fee structure(s), and associated terms and conditions established under CLIN 0003 will be determined when each Sub-CLIN is awarded.

B-3 SINGLE FEE *[MODs 0015, 0075, 0185]*

(a) *For CLIN 0001*. If the Contractor is part of a consortium, joint venture, and/or other Contractor Team Arrangement as defined in FAR 9.601, the team shall share in the Available Fee defined at Section B, B-2, Contract Fee Structures. Separate additional subcontractor fees for individual team members will not be considered an allowable cost under the Contract. If a subcontractor, supplier, or lower-tier subcontractor is a wholly owned, majority owned, or affiliate of any team member, any fee or profit paid to such entity will not be considered an allowable cost under this Contract unless otherwise approved by the Contracting Officer.

(b) *For CLIN 0002*. ***[MODs 0015, 0075]*** If the Contractor is part of a consortium, joint venture, and/or other Contractor Team Arrangement as defined in FAR 9.601, the team shall share in the CLIN 0002 fee defined at Section B, B-2, Contract Fee Structure. If a subcontractor, supplier, or lower-tier subcontractor is a wholly owned, majority owned, or affiliate of any team member, any fee or profit paid to such entity will not be considered an allowable cost under this Contract unless otherwise approved by the Contracting Officer.

(c) *For CLIN 0003*. ***[MOD 0185]*** If the Contractor is part of a consortium, joint venture, and/or other Contractor Team Arrangement as defined in FAR 9.601, the team shall share in the CLIN 0003 fee as negotiated in accordance with Section B, B-2; Contract Fee Structures. Separate additional subcontractor fees for individual team members will not be considered an allowable cost under the Contract. If a subcontractor or lower-tier subcontractor is a wholly owned, majority owned, or affiliate of any team member, the allowability of any fee or profit paid to such entity will subject to the approval of the Contracting Officer and the provisions of DEAR 970.4402-3.

B-4 KEY PERSONNEL REPLACEMENT *[MOD 0269]*

Unless approved in advance, in writing by the Contracting Officer, should any Key Personnel be removed, replaced, or diverted by the Contractor for reasons under the Contractor's control (other than to maintain satisfactory standards of employee competency, conduct, and integrity under the Contract's Section I Clause entitled "DEAR 970.5203-3, Contractor's Organization") within the first two years of period of performance; or for a replacement Key Person within two years of being placed in the position, the Contractor shall forfeit two years of the DOE/NNSA reimbursable annual salary, bonuses and relocation costs in fee for that position for each occurrence.

For the period of performance beginning October 1, 2022, time commitment for each individual proposed as Key Personnel shall be between two and three years or until the end of the contract at the site to which the proposed Key Personnel will be assigned; and shall be negotiated between the Government and the Contractor on a case-by-case basis. Positions covering a specific site must be physically located in the geographical area of the site to provide the required management presence needed to effectively manage operations. The proposed period of commitment and physical location will be included in the Contractor's Proposed Key Personnel Action request submitted to the Contracting Officer for approval pursuant to the provisions of DEAR 952.215-70, Key Personnel.

Notwithstanding the foregoing, each of the Key Personnel previously approved under the Contract and included in Section J, Appendix J, Key Personnel, of the Contract before October 1, 2022, will be subject only to their periods of commitment in effect at the time of Contracting Officer's original approval.

B-5 OBLIGATION OF FUNDS *[MODs 0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0014, 0016, 0017, 0019, 0020, 0021, 0022, 0024, 0025, 0026, 0027, 0028, 0029, 0030, 0031, 0032, 0033, 0035, 0036, 0037, 0038, 0039, 0040, 0041, 0043, 0044, 0046, 0047, 0048, 0049, 0050, 0051, 0053, 0054, 0055, 0056, 0057, 0058, 0059, 0060, 0061, 0062, 0063, 0064, 0065, 0066, 0067, 0068, 0069, 0070, 0071, 0072, 0073, 0074, 0076, 0077, 0078, 0079, 0080, 0081, 0082, 0083, 0085, 0086, 0087, 0088, 0089,0092, 0093, 0095, 0096, 0097, 0098, 0099, 0100, 0102, 0103, 0105, 0107, 0109, 0110, 0112, 0113, 0115, 0116, 0119, 0120, 0122, 0123, 0124, 0125, 0126, 0127, 0129, 0131, 0132, 0134, 0135, 0136, 0137, 0138, 0139, 0141, 0142, 0143, 0144, 0145, 0149, 0150, 0152, 0153, 0155, 0156, 0158, 0159, 0160, 0161, 0163, 0164, 0167, 0168, 0169, 0172, 0173, 0174, 0176, 0180, 0183, 0186, 0187, 0188, 0190, 0192, 0194, 0197, 0198, 0202, 0204, 0207, 0208, 0213, 0214, 0218, 0219, 0222, 0223, 0226, 0228, 0231, 0232, 0233, 0234, 0237, 0239, 0243, 0244, 0247, 0248, 0249, 0250, 0251, 0253, 0254, 0256, 0257, 0258, 0259, 0260, 0261, 0263, 0264, 0265, 0266, 0267, 0268, 0271, 0272, 0274, 0275, 0277, 0278, 0279, 0280, 0281, 0282, 0283, 0284, 0286, 0287, 0289, 0290, 0292,*

0293, 0294, 0295, 0297, 0298, 0301, 0302, 0304, 0305, 0306, 0307, 0308, 0309,0310, 0311, 0312, 0313, 0314, 0315, 0316, 0317, 0318, 0319, 0321, 0322, 0323, 0324, 0325, 0326, 0328, 0329, 0332, 0333, 0335, 0336, 0337, 0338, 0339, 0340, 0342, 0343, 0346, 0347, 0349, 0350, 0352, 0353, 0354, 0355, 0357, 0358, 0360, 0361, 0362, 0363]

Pursuant to this Contract's Section I Clause entitled "DEAR 970.5232-4, Obligation of Funds," the total amount obligated by the Government with respect to this Contract is:

	Funds Obligated in Contract Through Modification No.*0362*:	Funding Changed By This Modification No.*0363* :	Total Funds Obligated Through Modification No. *0363*:
Transition Term CLIN 0001A	$19,632,048.95	$0	$19,632,048.95
Base Term M&O Cost Savings CLIN 0001B (Non IC)	$0	$0	$0
Base Term M&O CLIN 0001B	$9,503,131,474.56	$0	$9,503,131,474.56
Option 1 Term M&O CLIN 0001C	$ 3,959,811,210.23	$0	$3,959,811,210.23
M&O CLIN 0001I	$ 3,261,935,591.05	$0	$3,261,935,591.05
SPP *[Mod 0113]* CLIN 0001H	$ 195,067,426.95	$0	$195,067,426.95
SPP CLIN 0001J	$31,911,199.25	$0	$31,911,199.25
M&O – CLIN 0001K	$ 7,110,419,150.92	$0	$7,110,419,150.92
M&O - CLIN 0001L - OPTION	$0	$0	$0
M&O - CLIN 0001M - OPTION	$0	$0	$0
M&O - CLIN 0001N - OPTION	$0	$0	$0
SPP - CLIN 0001O	$115,669,259.50	$(5,786.66)	$115,663,472.84
SPP - CLIN 0001P - OPTION	$0	$0	$0
SPP - CLIN 0001Q - OPTION	$0	$0	$0
SPP - CLIN 0001R - OPTION	$0	$0	$0
UPF CLIN 0002	$7,023,286,319.31	$0	$7,023,286,319.31
Total Funds Obligated to the Contract Since Inception of Contract	**$31,220,857,894.06**		

The expenditure of appropriated funds shall be subject to the availability of funds appropriated by the Congress, which the DOE/NNSA may legally spend for such purposes.

B-6 AVAILABILITY OF APPROPRIATED FUNDS

Except as may be specifically provided to the contrary to the Contract's Section I Clauses entitled "FAR 52.250-1, Indemnification Under Public Law 85-804, Alternate I" and "DEAR 952.250-70, Nuclear Hazards Indemnity Agreement," the duties and obligations of the Government hereunder calling for the expenditure of appropriated funds shall be subject to the availability of funds appropriated by the Congress, which DOE/NNSA may legally spend for such purposes.

B-7 PERFORMANCE EVALUATION AND MEASUREMENT PLAN (PEMP) *[MODs 0015, 0045, 0052, 0165, 0179, 0193, 0236, 0252]*

(a) *Performance Evaluation and Measurement Plan*. A PEMP developed by NNSA for this Contract, with Contractor input, shall document the process by which the Contractor's performance will be evaluated, except for the work covered by CLIN 0002, which will have a separate plan as outlined in Section B, B-8, UPF Fee Plan. The Parties will strive to reach mutual agreement on expected business, operational and technical performance and will work together to establish the performance evaluation plan. In the event the parties cannot come to agreement on the PEMP, the NNSA Production Office (NPO) Manager reserves the unilateral right to make the final decision, including changes thereto, on all performance objectives, goals, and measures and the methodology used to evaluate Contractor performance. The PEMP shall be finalized, whether bilaterally or unilaterally, prior to the start of an evaluation period and incorporated into the Contract at Section J, Appendix B-1, Performance Evaluation and Measurement Plan by a formal contract modification executed by the Contracting Officer. The NPO Manager and Contracting Officer may revise the PEMP, consistent with Section J, Appendix A, Statement of Work (SOW), during the evaluation period of performance. The Contracting Officer will incorporate any revisions to the PEMP through a contract modification. No changes will be made to the PEMP with less than 60 days remaining in the evaluation period.

(b) *Contractor Appraisal Self-Assessment Report*. A periodic self-assessment shall be prepared by the Contractor for consideration by the Government in developing an annual Performance Evaluation Report (PER).

(c) *Determination of Award Fee*

(1) Award Fee (AF) Determination. The amount of AF earned will be based on the Contractor's performance as evaluated against the Performance Evaluation and Measurement Plan (PEMP). The amount of AF earned will be unilaterally determined by NNSA's Fee Determining Official (FDO), who will document the amount and the basis of the AF determination in a Fee Determination Letter.

(2) Contractor Notification. Each year (except for the year 2019), no later than December 15 (or the first business day thereafter, if December 15 is a Saturday, Sunday, or Federal holiday), the Contracting Officer will notify the Contractor of the amount of AF earned and provide the Fee Determination Letter. For the year 2019

specifically, the Contracting Officer will notify the Contractor of the amount of AF earned and provide the Fee Determination Letter at the time the Option Term 2 Gateway Decision Point is determined by the Fee Determining Official. This shall occur not later than June 30, 2020.

For the 6-month extension period (October 1, 2021 – March 31, 2022), the Contracting Officer will notify the Contractor of the amount and the basis of the AF earned and provide the Fee Determination Letter no later than June 15, 2022.

For the 6-month extension period (April 1, 2022 – Sept 30, 2022), the Contracting Officer will notify the Contractor of the amount and the basis of the AF earned and provide the Fee Determination Letter no later than December 15 (or the first business day thereafter, if December 15 is a Saturday, Sunday, or federal holiday).

(3) AF Delay. If the Contracting Officer does not notify the Contractor of the amount of AF earned by the date specified in (b), the Contractor shall be entitled to interest on the AF earned, following the procedures outlined at 5 C.F.R. § 1315.10. For purposes of this calculation, the payment due date is considered to be the day after the date specified in (c)(2) above.

Other Reductions to AF. In the event that the Contractor's performance is considered to be less than the level of performance set forth in the Statement of Work, as amended to include the current Work Authorization Directive or similar document, for any contract requirements it will be considered by the FDO, or his designee, who may adjust the fee determination to reflect such performance. Any such adjustment shall be in accordance with the Clause I-18 of the contract, entitled "Conditional Payment of Fee, Profit, and other Incentives- Facility Management Contracts."

B-8 UPF FEE PLAN *[MODs 0015, 0075, 0181]*

(a) UPF Fee Plan. A UPF Fee Plan developed by the NNSA UPF Project Office for this Contract, with Contractor input, shall document the process by which the Contractor's performance will be evaluated for CLIN 0002. The Parties will strive to reach mutual agreement on expected performance objectives and deliverables, and will work together to establish the initial UPF Fee Plan and Supplementary Annexes. In the event the Parties cannot come to agreement on the initial UPF Fee Plan, the UPF Federal Project Director reserves the unilateral right to make the final decision, including changes thereto, on all performance objectives, goals, and measures and the methodology used to evaluate Contractor performance.

The initial UPF Fee Plan shall be finalized, whether bilaterally or unilaterally, and incorporated into this Contract at Section J, Appendix B-2, UPF Fee Plan by a formal contract modification executed by the Contracting Officer. The UPF Federal Project Director and Contracting Officer may update the established UPF Fee Plan and Supplementary Annexes, consistent with Section J, Appendix A, Statement of Work (SOW), during the performance of project. The Contracting Officer will incorporate any

revisions and additions to the established UPF Fee Plan and Supplementary Annexes through a bilateral contract modification.

(b) Contractor's Request for Fee. All fee requests shall be prepared by the Contractor in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(c) Determination of Earned Fee. All fee determinations shall be made in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes.

(d) Fee Adjustments. All fee adjustments shall be made in accordance with Section J, Appendix B-2, UPF Fee Plan and Supplementary Annexes, and Section I, I-18, DEAR Clause 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentive - Facility Management Contracts (AUG 2019). The Government will only consider fee adjustments for circumstances directly attributable to Contractor performance related to the UPF Project.

B-9 CAPITAL CONSTRUCTION PROJECTS FEE PLAN *[MOD 0185]*

A Capital Construction Project Fee Plan will be developed, with Contractor input, for each Sub-CLIN awarded under CLIN 0003. Although the detail and content incorporated into each Fee Plan may vary based on the cost and fee structure agreed upon for a given Sub-CLIN, each Sub-CLIN Fee Plan shall document the process by which the Contractor's performance will be evaluated; the amount of available fee and (when applicable) the allocation of fee to mutually agreeable project cost and/or schedule milestones; the conditions precedent to the submission of fee payment requests by the Contractor; the Government's fee determination process; and any provisions or conditions that would result in an adjustment to otherwise earned fee. The parties will work collaboratively to establish mutually acceptable Fee Plans and, in the event the Parties cannot come to agreement on the Fee Plan for any Sub-CLIN, the Department of Energy, National Nuclear Security Administration reserves the unilateral right to make the final decision, including changes thereto, on all performance objectives, goals, and measures and the methodology used to evaluate Contractor performance.

B-10 ANNUAL FEE BASELINE APPLICABLE TO PERFORMANCE BEGINNING 01 OCTOBER 2022 *[MOD 0269]*

(a) *Generation of an Annual Fee Baseline (AFB).* The Contractor shall develop an AFB for all NNSA-directed programs. The AFB will include all work and be measured at the program level (e.g., B61-12, W80-4, etc.) by resources category (i.e., labor, material, and other). As agreed to in the AFB Process Framework, which is incorporated into this contract at Section J Appendix U, certain limited activities may be measured below the program level as appropriate, but not below the B&R (budget and reporting) level. The AFB will be under configuration management and control, with all changes formally documented and accessible to NNSA. The AFB should be maintained in a manner consistent with, and reconcilable to, approved work authorizations, funding levels, and any programmatic reporting including EVMS or EVMS-like systems. Changes to the AFB shall be based on changes in the amount or character of the work in accordance with

the approved baseline change process referenced in the AFB Process Framework. The Contractor will submit the AFB annually by August 15th of the preceding year unless another delivery date is agreed to in advance by the Contracting Officer.

(b) *Composition of AFB Package*.

(1) Composition and Reconciliation. The AFB shall be presented at the level of detail specified in the approved AFB Process Framework. The AFB package shall include a reconciliation of the President's budget request to the AFB that clearly identifies the following reconciling items:

Exclusions from the AFB as specified in (b)(2) below.

(2) Exclusions from the AFB. The AFB shall not include:

(A) Carryover, which is defined as the estimated costs of any work that was included in the AFB of a previous Contract Period;

(B) Estimated costs included in the enacted budget for any work to be performed by a federal entity or DOE/NNSA prime contractor other than Contractor;

(C) Estimated costs of Inter-Contractor Purchases placed with Contractor by other DOE/NNSA prime contractors or their subcontractors;

(D) Prefunding or continuity of operations funding intended for execution and costing in a subsequent contract term;

(E) The cost estimate associated with any scope of work (e.g., Line-Item Construction Projects) for which a separate fee structure is negotiated; and

(F) That portion of the budget attributable to fee.

(c) *Calculation of Available Award Fee*.

(1) Available Award Fee – Available Award Fee shall be calculated by reducing the relevant AFB by an exclusion factor of 11.4% then applying the applicable Section B CLIN 0001K and CLIN 0001L award fee rate (AF%) to the resulting value: (AFB)*(1-0.114)*AF%.

(2) Annual AFB Adjustment. The available award fee will be adjusted via bilateral modification once each contract period at the time the AFB attributable to current year funding is updated to reflect the enacted budget. The adjustment will be

made using the fee base formula prescribed above. No other adjustment shall be made to the available award fee unless the approved year-end September 30th AFB reflects a plus or minus 10 percent change from the AFB based on the enacted budget. In accordance with the Changes Clause, the 10-percent change threshold shall apply only to material changes in the amount or character of work described in the Statement of Work. CLIN Tables in Section B will be updated through bilateral modifications as applicable.

SECTION C

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C-1 STATEMENT OF WORK

The work to be performed is set forth in Section J, Appendix A, Statement of Work.

SECTION D

PACKAGING AND MARKING (RESERVED)

SECTION E

INSPECTION AND ACCEPTANCE

E-1 FAR 52.246-5 INSPECTION OF SERVICES – COST-REIMBURSEMENT (APR 1984)

(a) Definition. "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all places and times during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If any of the services performed do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by re-performance, the Government may--

(1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and

(2) Reduce any fee payable under the contract to reflect the reduced value of the services performed.

(e) If the Contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may--

(1) By contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances; or

(2) Terminate the contract for default.

E-2 ACCEPTANCE

Acceptance for all work and effort under this Contract shall be accomplished by the Contracting Officer or any other duly authorized representative.

SECTION F

DELIVERIES OR PERFORMANCE

F-1 FAR 52.242-15 STOP-WORK ORDER (AUG 1989) ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F-2 PERIOD OF PERFORMANCE *[MODs 0015, 0039, 0045, 0148, 0236, 0252, 0291, 0327]*

The effective date of the Contract is the award date identified in Section A.

(a) The Contract's period of performance includes:

Transition Term – the effective date of the Contract through January 18, 2013 and March 3, 2014 through June 30, 2014;

Base Term – July 1, 2014 through Sep 30, 2019;

Option Term 1 — Oct 1, 2019 through Sep 30, 2021;

6-month Extension – Oct 1, 2021, through March 31, 2022,

6-month Extension – April 1, 2022, through Sept. 30, 2022,

Term under CLIN 0001K and CLIN 0001O – Oct 1, 2022- Sep 30, 2024 for both sites; Oct 1, 2024 – Oct 31, 2024 for PX; and Oct 1, 2024 – Sep 30, 2025 for Y-12;

Term under CLIN 0001M and CLIN 0001Q – Oct 1, 2025 – Sep 30, 2026 for Y-12;

Term under CLIN 0001N and CLIN 0001R – Oct 1, 2026 – Sep 30, 2027 for Y-12.

(b) The period of performance of this Contract will expire Sept. 30, 2027, unless sooner reduced, terminated or extended in accordance with the provisions of this Contract. The Contract period of performance may be extended in increments, or portions thereof, for up to an additional period of five years of performance in accordance with Section F, F-5, Evaluation of Performance and Exercise of Option(s). The Contract's maximum period of performance, including the Transition Term and Options, if exercised, shall not exceed ten (10) years, nineteen weeks.

(c) The Transition Term shall be for the transition activities identified in Section J, Appendix C, Transition Plan. The Contractor's responsibility for management and operation of the Sites against the Statement of Work shall commence with the Base Term. The Option Terms 1-3 conditions are set forth in Section F, F-5, Evaluation of Performance and Exercise of Option(s).

F-3 PRINCIPAL PLACE OF PERFORMANCE

The work under this Contract is to be carried out at a variety of locations within and outside the United States, with the principal locations of performance being at the Y-12 National Security Complex in Oak Ridge, Tennessee, the Pantex Plant near Amarillo, Texas, with an option for Savannah River Site Tritium Operations near Aiken, South Carolina.

F-4 STOP WORK IN EVENT OF IMMINENT DANGER

In the event that a determination or observation of conditions is immediately dangerous to the life or health of the workers, the public, or the environment, the Contractor shall immediately

cease that activity. In the event of imminent danger, any Federal or Contractor employee is authorized to instruct the Contractor to properly stop work. The Contracting Officer must be contacted immediately after the event such that a written Stop-Work order can be issued in accordance with the Contract's Section F Clause entitled "FAR 52.242-15, Stop-Work Order Alternate I." The Contractor shall include this clause in all subcontracts to be performed at the sites.

F-5 EVALUATION OF PERFORMANCE AND EXERCISE OF OPTION(S) (THIS CLAUSE APPLIES TO CLIN 0001 ONLY) ***[MODs 0015, 0108, 0121, 0130, 0148, 0193]***

This Contract includes several options: three options (Option Terms 1-3) extend the term of this Contract and an option to include SRTO within the scope of this Contract.

(a) *Option Exercise for Additional Term*

Gateway Decision: The Gateway Decision is a unilateral decision of the FDO based on the Contractor's performance rating under this Contract in accordance with the Performance Evaluation Plan. The Contractor's delivery of cost savings reflected in the cost savings profile in Section J, Appendix D, Merger Transformation Plan will be taken into consideration in the Gateway Decision. The standard of performance for each Gateway Decision is such that the score in the annual PER is "very good" or above (or achieve 80% or better) under the Performance Evaluation Plan for the final year of the performance years evaluated for Exercise of Option Term 1 and each performance year evaluated for exercise of Option Terms 2 and 3. The total projected cost savings goal within the cost savings profile in Section J, Appendix D, Merger Transformation Plan for the combined performance years evaluated is 80% for each Gateway Decision Point, as reflected in the table below. The FDO has the discretion to evaluate the Contractor's achievements in cost savings in conjunction with Contractor performance in determining the Gateway Decision. If the FDO's decision is to award additional term, the Contract will be modified unilaterally by the Contracting Officer to extend the term of the Contract, after considering NNSA requirements, in accordance with the Contract's Section I Clause entitled "FAR 52.217-9, Option to Extend the Term of the Contract".

Option Term 1: Commencing in Government Fiscal Year (GFY) 2018 of the Contract, the Contract's period of performance may be extended for two additional years (Oct 1, 2019 through Sep 30, 2021) based on the standard of performance (score) and cost savings noted above.

Option Term 2: Commencing in GFY 2020 of the Contract, the Contract's period of performance may be extended for two additional years (Oct 1, 2021 through Sep 30, 2023) based on the standard of performance (score) and cost savings noted above.

Option Term 3: Commencing in GFY 2022 of the Contract, the Contract's period of performance may be extended for 9 months (Oct 1, 2023 through June 30, 2024) based on the standard of performance (score) and cost savings noted above.

The table below reflects Option Terms 1, 2, & 3.

	Gateway Decision Point	Performance Years Evaluated	Option Years Available
Option Term 1	2nd Quarter of GFY 2018	1 Jul 2014 – 30 Sep 2017	6-7
Option Term 2	3rd Quarter of GFY 2020	1 Oct 2017 – 30 Sep 2019	8-9
Option Term 3	2nd Quarter of GFY 2022	1 Oct 2019 – 30 Sep 2021	10

NOTE: *Evaluation of Performance is aligned with the CPEP and the GFY. There is no change in contract period of performance dates as a result of this alignment.*

NNSA will evaluate contract performance years 1-3 (July 1, 2014-Sep 30, 2017) to award Option Term 1 - contract years 6-7 (Oct 1, 2019-Sep 30, 2021)

NNSA will evaluate contract performance for years 4-5 (Oct 1, 2017-Sep 30, 2019) to award Option Term 2 - contract years 8-9 (Oct 1, 2021-Sep 30, 2023)

NNSA will evaluate contract performance years 6-7 (Oct 1, 2019-Sep 30, 2021) to award Option Term 3 - contract year (9 month period) 10 (Oct 1, 2023-June 30, 2024)

(b) *Option Exercise to add SRTO*

This option allows for adding the SRTO scope of work to the Contract. If the NNSA determines it is in the best interest of the Government to exercise this option, the Contract will be modified unilaterally by the Contracting Officer to add the SRTO effort. Immediately upon option exercise, the Contractor will be required to provide a Transition Plan including the same elements as noted in Section F, F-7(a) and (b). The Contractor shall also update applicable Contract requirements, as directed by the Contracting Officer, including, but not limited to, the Performance Guarantee(s) and Subcontracting Plan, at the time of option exercise. NNSA may exercise the SRTO option at the end of the first year; however the determination will be based on NNSA mission requirements and other factors.

F-6 DELIVERABLES

The primary deliverables under this Contract are described in the Statement of Work, Section J, Appendix A. To ensure that effective and efficient management systems exist for the management and operation of the sites, this Contract also requires the delivery of documents, plans, and reports for the Contracting Officer's review and approval. The Contractor shall manage all deliverables required throughout this Contract.

F-7 DELIVERABLES DURING TRANSITION

Alternate due dates for transition deliverables may be suggested after the effective date of the Contract, provided they do not conflict with FAR or DEAR clauses. The Contracting Officer may approve changes in deliverable dates that make transition more effective and efficient for both parties.

In addition to the transition deliverables identified elsewhere in the Contract, the following deliverables shall be submitted during the Transition Term as follows:

(a) Transition Plan. The Contractor shall provide a Transition Plan upon the effective date of the Contract for the transition activities at the Y-12 National Security Complex and Pantex Plant following the guidance provided at Section J, Appendix C, Transition Plan. The Transition Term is specified in Section F, F-2, Period of Performance. The Transition Plan will become part of Section J, Appendix C, Transition Plan. This Transition Plan is separate from, and in addition to, the Merger Transformation Plan requested in paragraph (e) of this clause.

(b) Transition Cost Estimate. The Contractor shall provide a Transition cost estimate for the transition activities at the Y-12 National Security Complex and the Pantex Plant to the Contracting Officer upon the effective date of the contract. The Transition cost estimate shall include: (1) the costs associated with the Transition Plan; and (2) the costs necessary for the Contractor to meet the transition requirements during the Transition Term. The Transition cost estimate will be subject to approval by the Contracting Officer. For the Contract's Transition Term, the Contractor shall provide a summary by major cost elements to perform the transition activities and meet transition requirements required during the Transition Term.

(1) The Contractor shall provide a cost summary for the Transition Plan that clearly identifies by cost element, the portion of the cost proposal that pertains to each participant, if a teaming arrangement is proposed, including subcontractors. In addition, each participant and each subcontractor must provide separate exhibits, summary schedules and supporting cost information in the same format and level of detail as required below. A separate transition fee is not allowable.

(i) Labor: Identify proposed transition labor hours and unburdened labor rates by labor category and or/specific individual (including Key Personnel). Explain the basis for the proposed labor hour and labor rate estimates.

(ii) Indirects: Identify the cost elements included in each indirect rate cost pool and allocation base. Explain the basis of estimate for each indirect cost rate proposed and the methods used to derive the proposed rates.

(iii) Materials, Equipment, Subcontracts, and Other Direct Costs: Provide an exhibit that summarizes proposed materials, equipment, services, space/lease costs, travel, and other direct cost items relating to the transition effort. Show the proposed quantity, unit price, and extended amounts, and provide the basis

of estimate and supporting documentation used to determine the proposed prices.

(iv) Relocation Costs: A relocation cost estimate shall be provided that separately identifies the proposed travel, services, and other direct costs items related to relocation of Key Personnel and any managers who directly report to them.

(2) The Contractor shall also separately provide a cost summary for accomplishing those tasks required during the Transition Term that are identified in Section J, Appendix A, Statement of Work (Chapter III, 2.0 Workforce Transition). In addition to the requirements of paragraph (b)(1) of this clause, costs proposed must be cross-referenced to the specific tasks in Section J, Appendix A, Statement of Work (Chapter III, 2.0 Workforce Transition) that must be accomplished during the Transition Term. A detailed schedule for accomplishment of these tasks during the Transition Term shall also be provided to support the requested cost estimate.

(c) Community Commitment Plan. The Contractor shall deliver within 120 calendar days after the effective date of the Contract, a community commitment plan that has been discussed between the Contractor and the community. The Community Commitment Plan will consist of commitments between the Contractor and the surrounding communities of the sites under this Contract for purposes of supporting the communities and their economic base. As this plan will not become part of the resulting Contract requirements, reasonable costs associated with the development of the plan will be considered allowable, however costs associated with implementing the plan will be considered unallowable.

(d) Key Personnel Cost Estimate.

(1) The Contractor shall propose initial total Key Personnel compensation costs for each of its Key Personnel for the first year of the Base Term for CLIN 0001 and CLIN 0002 upon the effective date of the Contract. The Key Personnel compensation costs will be subject to approval by the Contracting Officer during the Transition Term. For the first year of the Base Term, for Key Personnel, the Contracting Officer will approve one time salary requests. The Contractor shall provide supporting justification related to internal and external equity for each compensation request. The top contractor official's reimbursed base salary will serve as the maximum allowable salary reimbursement level. No reimbursement above the limits specified will be allowed under the Contract for the first year of the Base Term.

(2) The Contractor shall separately identify and provide a total summary of the annual compensation costs of the Contractor's proposed Key Personnel for the first year of the Base Term. Costs shall include annual base salaries, and applicable bonuses, incentive pay, fringe benefits, and other key personnel compensation. For each of the Key Personnel proposed, identify the individual's position, name, current annual salary, and basis for determining the proposed annual salary. Separately identify and describe the basis of estimate for applicable fringe benefits, incentive pay, bonuses, and any other forms of Key Personnel compensation. Provide narrative support

sufficient to explain the development and reasonableness of the proposed compensation costs.

(3) Notwithstanding any other term or condition set forth in the Contract, the compensation reimbursed by the Government for each of the Contractor's Key Personnel shall not exceed $693,951 or the revised benchmark amount, in any subsequent Government fiscal year, as determined by the applicable Determination of Executive Compensation Benchmark Amount Pursuant to Section 39 of the Office of Federal Procurement Policy Act (41 U.S.C. 435), as Amended, as required in FAR 31.205-6, Compensation for Personal Services; paragraph (p), Limitation on allowability of compensation for certain Contractor personnel. Any amount in excess of the OFPP benchmark must be identified and excluded from the Contractor's proposed Key Personnel Costs.

(e) Merger Transformation Plan (MTP). Section J, Appendix A, Statement of Work, requires that the Contractor provide a "Merger Transformation Plan" for Contracting Officer's approval within 60 calendar days after the effective date of the Contract. The Contractor may request modifications to the MTP during the Contract term and these changes will be reviewed and approved by the Contracting Officer. The Contractor's Management Approach and Cost Savings, which was submitted by the Contractor in its proposal for purposes of evaluation for award, shall be incorporated as a part of Section J, Appendix D, Merger Transformation Plan. The MTP shall also include Performance Fee Incentives, with associated objectives, measures, and targets to be considered for inclusion in the Contract's Performance Evaluation Plan (PEP), which may be multi-year, and be used as consideration for additional Contract term. The MTP will contain information that will be utilized for development of the CRP as described in the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction".

(f) Conflict of Interest Compliance Plan. The Contractor shall submit a Conflict of Interest (COI) Compliance Plan to the Contracting Officer for approval within 60 days after the effective date of this Contract including UPF. The COI Compliance Plan shall address the Contractor's approach for adhering to the Contract's Section I Clauses entitled "DEAR 952.209-72, Organizational Conflicts of Interest Alternate I" and "DEAR 970.5227-3, Technology Transfer Mission Alternate II" and describe its procedures for aggressively self-identifying and resolving both organizational and employee conflicts of interest. The COI Compliance Plan will also serve as the minimum standards for the conflicts of interest portion of the Contractor's "written code of business ethics and conduct" which is required by this Contract's Section I Clause entitled "FAR 52.203-13, Contractor Code of Business Ethics and Conduct." The overall purpose of the COI Compliance Plan is to demonstrate how the Contractor will assure that its operations meet the highest standards of ethical conduct, and how its assistance and advice are impartial and objective. The COI Compliance Plan shall include the minimum standards at Section J, Appendix Q, Minimum Standards for Contractor's COI Plans.

(g) UPF Project Management Plan. Section J, Appendix A, Statement of Work, Chapter IV, requires that the Contractor provide an updated "Project Management Plan" for Contracting Officer's approval within 90 calendar days after start of transition. The

Acquisition Executive will maintain baseline control as prescribed in DOE O 413.3B. The UPF Project Management Plan shall be consistent with the Project Management Approach that was submitted with the Contractor's proposal.

F-8 DELIVERABLES DURING TRANSITION TO TWO SEPARATE M&O CONTRACTS *[MOD 0270]*

Alternate due dates for transition deliverables may be suggested after the effective date of the Contract, provided they do not conflict with other provisions of the Contract. In addition to the deliverables identified elsewhere in the Contract, the following deliverables shall be submitted to support NNSA's planned transition to two separate M&O contracts by October 1, 2024:

Site Separation Deliverables	**Deliverables and Due Dates**
1. Organization chart for Pantex and Y-12	CNS will provide the Level 2 (CEO and direct reports) organization chart that will be effective January 1, 2023, including, at a minimum, the 4 key positions of CEO, Y12 Site Manager, Pantex Site Manager and Site Separation Activities Manager. Any other key positions will also be noted on the chart. Due date: October 1, 2022 CNS will provide a Level 2 organization chart with a vision of the expected site structures as of October 1, 2024, including the anticipated key positions It is noted that this is preliminary and provided for information only. **Due date:** October 1, 2022
2. Written confirmation that KP positions have been filled at Pantex and Y-12.	CNS will provide written confirmation that the four (4) required Key Personnel positions have been filled at Pantex and Y-12 **Due date:** January 1, 2023
3. Risk management plan describing an overall approach to mitigate mission performance risk for each site during the extension and transition process.	CNS will prepare a risk management plan including 1) analysis of potential impact of the site separation activities to the mission, 2) development of mitigation strategies, and 3) incorporation of resulting tasks into the site separation implementation plan schedule. The risk analysis will also include the potential impact of the site separation activities to other currently established risks (e.g., Top 10) or NNSA priority items. Those items requiring special attention will be included and flagged within the risk management plan. The risk management plan will be incorporated into the development of the site separation implementation plan (SSIP). **Due date:** An initial Risk Management Plan will be provided with the Interim SSIP on April 30, 2023. An updated Risk Management Plan will be provided with the final SSIP.
Site Separation Deliverables	**Deliverables and Due Dates**

4. Integrated and prioritized list of items that need special attention during the site split and transition	This information will be incorporated into the risk management plan and flagged as items requiring special attention. See Site Separation Implementation Plan for these Items.
5. Support to IDA review for understanding of CNS' current IT and cyber structures and capabilities to determine NNSA's desired path forward for site separation.	The Institute for Defense Analysis (IDA) will be assisting NNSA with analysis and decision-making for its desired path forward for IT and cyber separation activities. CNS will support the IDA review and will produce a project plan as part of the integrated SSIP to implement the site separation of IT and cyber activities based on NNSA's direction **Due dates:** This action will be incorporated in the Interim SSIP submission on April 30, 2023.
6. Staffing plan outlining the staffing needs at each site	CNS will provide an initial post-separation staffing plan for Pantex and Y-12. **Due date:** January 31, 2023
7. Written notification of formation of a Governance Board and documentation of membership	CNS will provide the approved Governance Board charter, which identifies the scope of the Board responsibilities and the selected membership. **Due date:** January 31, 2023
8. Site Separation Implementation Plan (SSIP) that establishes functions and systems allowing the Pantex and Y-12 sites to operate as separate sites.	CNS will provide a draft Site Separation Implementation Plan (SSIP) roadmap with high-level milestones identified **Due date:** January 31, 2023. CNS will provide an interim SSIP informed by the results of feedback from the reviews of the roadmap and high-level milestones, 2) the initial risk management plan (Item 3), and 3) the elements that are under evaluation to retain from the contract merger (Item 9). **Due date:** April 30, 2023 The fully resource-loaded plan will be informed by 1) the results of feedback from the reviews of the roadmap and high-level milestones, 2) the risk management plan (Item 3), and 3) the elements that are under evaluation to retain from the contract merger (Item 9). This will be an iterative process to arrive at the final SSIP and associated activities. **Due date:** Within 45 days of the receipt of the NNSA feedback and approval of the interim SSIP.
9. White paper outlining the key elements of the contract merger that improved overall performance at the sites and that describes how these elements can be retained through transition to two separate contracts.	CNS will provide a white paper outlining the key elements of the contract merger that improved overall performance at the sites and describe how these elements can be retained through transition to two separate contracts. The elements from the white paper will be evaluated for incorporation into the site separation implementation plan (SSIP). **Due date:** March 31, 2023

F-9 SITE SEPARATION OF Y-12 NATIONAL SECURITY COMPLEX & PANTEX PLANT [*MOD 0359*]

The contractor shall accelerate all site separation activities to achieve autonomous operations at Y-12 National Security Complex and Pantex Plant without mission impact and using current resources no later than December 31, 2025, with a stretch goal of September 30, 2025. The acceleration of site separation shall be achieved through continued close coordination between the contractor and Pantex Plant M&O Contractor, PanTeXas Deterrence (PXD).

The contractor is required to deliver to the Contracting Officer no later than June 20, 2025 an addendum to the approved Site Separation Implementation Plan (SSIP), delivered in accordance with Clause F-8 DELIVERABLES DURING TRANSITION TO TWO SEPARATE M&O CONTRACTS, detailing the acceleration approach, change in execution of responsibilities by specifying those to be executed by PXD and those to be executed by the contractor, cost, and schedule changes at the site separation activity level.

SECTION G

CONTRACT ADMINISTRATION DATA

G-1 GOVERNMENT CONTACTS & CORRESPONDENCE PROCEDURES *[MODs 0015, 0045, 0108, 0185, 0291]*

(a)

(1) The NNSA Production Office (NPO) Manager for this Contract is the Contractor's primary point of contact for all technical and administrative matters, except as identified in Section G, G-3, DOE/NNSA Patent Counsel, regarding performance of this Contract under CLIN 0001. The NPO Administrative Contracting Officer (ACO) is the Contractor primary point of contact for all contractual matters related to CLIN 0001. The NPO Manager and NPO ACO can be reached at:

NNSA Production Office
Attn: NPO Manager
P.O. Box 2050
Oak Ridge, TN 37831-8009
or
P.O. Box 30030
Amarillo, TX 79120

NNSA Production Office
Attn: NPO ACO
P.O. Box 2050
Oak Ridge, TN 37831-8009
or
P.O. Box 30030
Amarillo, TX 79120

(2) The Uranium Processing Facility (UPF) Project Office (UPO) Federal Project Director (FPD) for this Contract is the Contractor's primary point of contact for all technical and administrative matters, except as identified in Section G, G-3, DOE/NNSA Patent Counsel, regarding performance of this Contract under CLIN 0002. The UPO ACO is the Contractor's primary point of contact or all contractual matters related to CLIN 002. The UPO FPD and ACO can be reached at:

UPF Project Office
Attn: UPO Federal Project Director
P.O. Box 2050
90 Union Valley Road, MS: 8042
Oak Ridge, TN 37831-8009

UPF Project Office
Attn: UPO ACO
P.O. Box 2050
90 Union Valley Road, MS: 8042
Oak Ridge, TN 37831-8009

(3) The Construction and Specialty Acquisition Branch Administrative Contracting Officer (ACO) is primarily responsible for all contractual and administrative matters related to CLIN 0003. The cognizant ACO for the administration of each Sub-CLIN will be identified therein. The Construction and Specialty Acquisition Branch ACO can be reached at:

Administrative Contracting Officer
U.S. Department of Energy/NNSA
Construction and Specialty Acquisition

Branch Albuquerque Complex
P.O. Box 5400
Albuquerque, NM 87185-5400

(4) The Procuring Contracting Officer (PCO) is responsible for all Contractual actions required to be taken by the Government under the terms of this Contract. The PCO can be reached at:

Procuring Contracting Officer
U.S Department of Energy/NNSA M&O Contracting Branch
C/O NNSA Production Office
P.O. Box 2050
Oak Ridge, TN 37831

(b) Technical and Administrative Correspondence:

Technical and Administrative Correspondence concerning performance of this Contract shall be addressed to the responsible NNSA Contracting Officer's Representative (COR) with an information copy to the ACO. CORs are listed in Section J, Appendix R.

(c) Designation of Contracting Officer's Representative(s)

The COR's official delegation of authority will be provided to the Contractor in writing. The delegation will describe the COR's authorities in detail. However, it is emphasized that only the Contracting Officer has the authority to modify the terms of the Contract, therefore, in no event will any understanding, agreement, modification, change order or other matter deviating from the terms of the basic Contract between the Contractor and any other person be effective or binding on the Government. When/If, in the opinion of the Contractor, an effort outside the existing scope of the Contract is requested, the Contractor shall promptly notify the Contracting Officer in writing, before proceeding with the COR Direction. No action shall be taken by the Contractor unless the Contracting Officer has issued a formal, written contractual change.

If an effort under this Contract requires that an Alternate COR is to perform duties in the absence of the responsible COR, all responsibilities and functions assigned to the COR shall be the responsibility of the Alternate COR acting on behalf of the COR.

(d) Contractual Correspondence /Matters

Correspondence involving contractual matters such as changes to contract terms and conditions (not including clause updates), funding, and cost savings shall be addressed to the *Procuring Contracting Officer (PCO)*. The PCO shall be primarily responsible for Contractual actions required to be taken by the Government under the terms of this Contract. Notwithstanding the above, in the event the primary (PCO) is absent for an extended period or an urgent action is required, any other duly appointed Contracting Officer assigned shall be authorized to take the required Contractual action(s) within the limits of his/her authority. All correspondence involving the administration and execution

of the existing terms and conditions, to include clause updates of the contract are to be addressed by the field office Administrative Contracting Officers (ACO).

(e) Marking

To promote timely and effective administration, correspondence submitted under this Contract shall contain a subject line commencing with the Contract Number, illustrated:

"SUBJECT: CONTRACT NUMBER DE-NA0001942, (insert subject topic after Contract Number, e.g., 'Request for subcontract placement approval.')"

(f) Distribution

A copy of correspondence addressed to the Contracting Officer or ACO shall be provided to the NPO Manager or the UPO Federal Project Director, as appropriate.

G-2 MODIFICATION AUTHORITY

Notwithstanding any of the other clauses of this Contract, a Contracting Officer is the only individual authorized, on behalf of the Government, to:

(a) Accept nonconforming work;

(b) Waive any requirement of this Contract; or

(c) Modify any term or condition of this Contract.

G-3 DOE/NNSA PATENT COUNSEL

The Patent Counsel for items concerning patent, intellectual property, technology transfer, copyright, open source, licenses and technical data issues is identified below. Correspondence being sent to the DOE/NNSA Patent Counsel should be addressed to:

NNSA Patent Counsel
Office of General Counsel (NA-GC)
P.O. Box 5400
Albuquerque, NM, 87185-5400
Phone: (505) 845-5172

G-4 DOE/NNSA ORGANIZATIONAL PROPERTY MANAGEMENT OFFICER

The Contractor may use the Organizational Property Management Officer as a point of contact for guidance and assistance involving property requirements. The Contracting Officer shall be contacted for any matter which involves a change in any of the express terms and conditions of the Contract. Correspondence being sent to the Organizational Property Management Officer should be addressed to:

Organizational Property Management Officer (OPMO)
Personal Property Albuquerque
P.O. Box 5400

Albuquerque, New Mexico, 87185-5400
Telephone: (505) 845-5437

G-5 CONTRACTOR CONTACT *[MODs 0091, 0211, 0291]*

The Contractor shall identify to the Contracting Officer the point of contact who has the authority and is responsible for managing, administering, and negotiating changes to the terms and conditions of this Contract, as well as executing Contract modifications on behalf of the Contractor.

Name: [redacted]
Position: President and Chief Executive Officer
Company: Consolidated Nuclear Security, LLC
Address: 301 Bear Creek Road, PO Box 2009, Oak Ridge, TN 37831
Phone: [redacted]
E-mail: [redacted]

G-6 PERFORMANCE GUARANTEE(S)

The Contractor is required to organize a separate corporate entity to perform the work under the Contract which shall be totally responsible for all Contract activities. The Contractor's parent organization(s) or all member organizations if the Contractor is a joint venture, limited liability company, or other similar entity, where more than one company is involved in a business relationship created for the purpose of performing under the resultant contract, shall guarantee performance as evidenced by the Performance Guarantee Agreement(s) incorporated in Section J, Appendix E, Performance Guarantee Agreement(s). If the Contractor is a joint venture, limited liability company, or other similar entity where more than one organization is involved, the parent or all member organizations shall assume joint and severable liability for the performance of the Contractor. In the event any of the signatories to the Performance Guarantee Agreement(s) enters into proceedings related to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Contracting Officer.

G-7 RECOGNITION OF PERFORMING ENTITY *[MODs 0090, 0165, 0224]*

(a) The Contractor and the Government recognize that the parties named below form the performing entity on which the award of this Contract was based.

The performing entity is Consolidated Nuclear Security, LLC (CNS). This entity is comprised of: Bechtel National Inc., Leidos, Inc. (Leidos), ATK Launch Systems LLC, and SOC LLC.

(b) Accordingly, the Contractor and the Government agree that:

The Contractor shall take no action to replace the components of the entity named in paragraph (a) of this clause without the prior written approval of the Contracting Officer.

G-8 RESPONSIBLE CORPORATE OFFICIAL *[MODs 0128, 0215, 0276]*

Notwithstanding G-6, Performance Guarantee(s), the Government may contact, as necessary, the single responsible corporate official identified below, who is at a level above the Contractor and who is accountable for the performance of the Contractor. Should the responsible corporate official change during the period of the Contract, the Contractor shall promptly notify the Government of the change in the individual to contact.

Name: [redacted]
Position: Executive Vice President
Company: Bechtel National, Inc.
Nuclear, Security and Environmental Global Business Unit
Address: 12011 Sunset Hills Road, Reston, VA 20190
Phone: [redacted]
E-mail: [redacted]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H-1 CONFIDENTIALITY OF INFORMATION

(a) In accordance with the Contract's Section I Clause entitled "DEAR 952.209-72 Organizational Conflicts of Interest Alternate I," to the extent that the work under this Contract requires that the Contractor be given access to confidential or proprietary business, technical, or financial information belonging to the Government or other companies, the Contractor shall, after receipt thereof, treat such information as confidential and agrees not to appropriate such information to its own use or to disclose such information to third parties unless specifically authorized by the Contracting Officer in writing. The foregoing obligations, however, shall not apply to:

(1) Information which, at the time of receipt by the Contractor, is in the public domain;

(2) Information which is published after receipt thereof by the Contractor or otherwise becomes part of the public domain through no fault of the Contractor;

(3) Information which the Contractor can demonstrate was in its possession at the time of receipt thereof and was not acquired directly or indirectly from the Government or other companies; or

(4) Information which the Contractor can demonstrate was received by it from a third party that did not require the Contractor to hold it in confidence.

(b) The Contractor shall obtain the written agreement, in a form satisfactory to the Contracting Officer, with each employee permitted access, whereby the employee agrees that he will not discuss, divulge, or disclose any such information or data to any person or entity except those persons within the Contractor's organization directly concerned with the performance of the Contract.

(c) The Contractor agrees, if requested by the Government, to sign an agreement identical, in all material respects, to the terms of this clause, with each company supplying information to the Contractor under this Contract, and to supply a copy of such agreement to the Contracting Officer.

(d) The Contractor agrees that upon request by DOE/NNSA, it will execute a DOE/NNSA-approved agreement with any party whose facilities or proprietary data it is given access to or is furnished, restricting use and disclosure of the data or the information obtained from the facilities. Upon request by DOE/NNSA, such an agreement shall also be signed by Contractor personnel.

(e) This clause shall flow down to all subcontracts.

(f) Technical data is addressed in this Contract's Section I Clause entitled "DEAR 970.5227-2, Rights in Data-Technology Transfer."

H-2 NNSA PRIME CONTRACTS

(a) In accordance with the Contract's Section I Clause entitled "DEAR 970.5243-1, Changes," the Contracting Officer may identify any of the work contemplated by Section J, Appendix A, Statement of Work, of this Contract to be performed either by another Contractor directly contracted by the DOE/NNSA or by Government employees. The Contractor agrees to fully cooperate with such other Contractors and Government employees, carefully fit its own work to such other work as may be directed by the Contracting Officer, and provide reasonable support as required. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor or by Government employees. For work identified for performance by another Contractor directly contracted by the NNSA:

(1) The Government and the Contractor will confer in advance on the strategy for changing responsibility for the work and will do so with the objective of minimum disruption to the site operations.

(2) The Government may designate the Contractor as the Technical Monitor (not authorized to accept or provide technical direction) for such Contracts that are directly related to the scope of this Contract. The Contractor agrees to perform such monitoring duties as shall be further described in the designation for each such Contract. No designation shall include, and the Contactor shall not perform any function determined to be inherently Governmental. These functions include, but are not limited to:

(i) Award, modification, change, or termination of the Contract.

(ii) Receipt, processing or adjudication of any claims, invoices, or demands for payment of any form.

(3) The Technical Monitor shall report to the Contracting Officer, or the Contracting Officer's Representative, any performance of a designated Contract that may not be in compliance with its terms and conditions but is not authorized to take any other action regarding such noncompliance.

(4) Additionally, the NNSA agrees to insert the clause below entitled "Other Government Contractors Performing Work at the Nuclear Production Sites," substantially as written here, in all such Contracts as follows:

OTHER GOVERNMENT CONTRACTORS PERFORMING WORK AT THE NUCLEAR PRODUCTION SITES

In addition to this Contract, (Insert Contract Number), the Government may undertake or award other Contracts for additional work or services at the Nuclear Production Sites. The Contractor agrees to fully cooperate with the

M&O Contractor, other Contractors, and Government employees, and carefully coordinate its own work with other work being performed at the site as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor or by Government employees at the site.

The Government may designate the M&O Contractor to be the Technical Monitor for any right, duty or interest in this Contract. If the M&O Contractor is designated, a copy of the designation letter will be provided to the Contractor by the Government. The Contractor further agrees to fully cooperate with the M&O Contractor for all matters under the terms of the designation.

(b) In the cases where the Government directly contracts with other entities and retains administration, the Contractor shall fully cooperate with these other entities and provide reasonable support as required.

(c) Adjustments shall be made to the Contractor's Subcontracting Plan to recognize the changes to the subcontracting base and goals, if appropriate.

H-3 INSTRUCTIONS FOR UPDATING FOREIGN OWNERSHIP, CONTROL OR INFLUENCE (FOCI) INFORMATION (JUN 2011)

(a) In order to submit periodic updates or to report changes to Foreign Ownership, Control or Influence information as required by this Contract's Section I Clause entitled "DEAR 952.204-2, Security," the Contractor shall use the DOE FOCI electronic submission system located at *https://foci.anl.gov*.

(b) New users, when registering to update information under this Contract, should select "NNSA Service Center Procurement" as the FOCI Office that will review the FOCI Submission.

(c) Electronic signatures are accepted; all FOCI documentation requiring signatures, dates, and company stamps, must be printed, completed, and uploaded into the Miscellaneous Tab within the eFOCI system. Hard copies are no longer required.

H-4 CONTINUITY DURING TRANSITION

Unless otherwise stated in this Contract, management systems, plans, permits, procedures, and other agreements that exist on the effective date of the Contract will continue until the Contractor addresses the applicable requirements contained in this Contract. For changes that require NNSA approval, the Contractor will not implement a change until it is formally approved by the Contracting Officer.

H-5 SMALL BUSINESS PARTICIPATION

Small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns submitted by the Contractor in its proposal for purposes of evaluation for award, are incorporated into this Contract at Section J,

Appendix K, Small Business Subcontracting Plan. To the extent that such concerns specifically were identified in the proposal, they are also incorporated into this Contract and the Contractor shall notify the Contracting Officer of any changes in scope and value, and any substitutions of firms. This notification shall include a rationale and justification for the changes.

The Contractor shall submit annual subcontracting goals 60 days prior to the beginning of each fiscal year during the term of this Contract, or by such other date as authorized in writing by the Contracting Officer. Small business subcontracting goals for the consolidated contract should reflect a positive impact on local geographic areas affected by the consolidation. Except for the initial plan submitted with the proposal, this plan and accomplishments will be submitted through the eSRS System.

The Contractor's performance in meeting and exceeding its proposed socio-economic business participation shall be assessed as part of the fee determination under this Contract.

H-6 PARENT OVERSIGHT PLAN

(a) If a Parent Oversight Plan is requested by the Contracting Officer pursuant to Section J, Appendix A, Chapter I, 4.4.3, the Parent Oversight Plan will be attached and made part of the Contract at Section J. Elements of the Plan may be incorporated into the Performance Evaluation Plan. The Parent Oversight Plan shall identify the official(s) responsible for administration of the plan.

(b) The Contractor shall provide periodic reports of Parent Oversight activities and costs incurred as required by the Contracting Officer. Costs associated with Plan shall only include: the actual direct labor costs of the persons performing such services; a percentage factor of direct labor costs to cover fringe benefits and payroll taxes; travel; and other direct costs. Any fee or other indirect costs such as allocation for overhead, General and Administrative (G&A), and Cost of Money will not be reimbursed.

(c) Cost limitations set forth in paragraph (b) above shall not be exceeded without prior Contracting Officer approval. The Parties agree that the costs may be reviewed further for appropriateness and scope. In addition, the Parties agree that a tracking process, acceptable to the Contracting Officer, providing sufficient detail for reasonable accountability, shall be implemented. The Parties agree to negotiate in good faith any adjustments to these amounts as a result of empirical information from any such tracking system or reviews.

H-7 LOBBYING RESTRICTION (FULL-YEAR CONTINUING APPROPRIATIONS ACT, 2011)

The contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

H-8 CONSTRUCTION PROJECTS *[MOD 0185]*

(a) For each construction project performed under CLIN 0003, the Contractor agrees that the NNSA will incorporate, by mutual agreement, appropriate Sub-CLIN specific construction terms and conditions into the M&O Contract concurrent with the award of each Sub-CLIN for the completion of that project that are not otherwise contained in the M&O Contract. The Sub-CLIN will also include specific work requirements (e.g., project title, description of work, delivery schedule (to include major milestones and/or completion dates), in accordance with DOE O 413.3 and other applicable DOE Orders. When deemed appropriate, the NNSA may also identify requirements applicable to work performed under CLIN 0001 (e.g., portions of DOE O 413.3) that would not apply to a given Sub-CLIN.

(b) Capital Construction Projects are defined, for the purposes of this Contract, as construction projects which are anticipated to exceed a total of $50M for all design and construction costs.

(1) The Contracting Officer may direct the Contractor to manage and/or perform Capital Construction Projects, or any portion thereof, under CLIN 0003 as they arise. The Contractor agrees to enter into good-faith negotiations with the Government to establish mutually agreeable terms and conditions that will apply to each Capital Construction Project. However, if the Parties cannot reach mutual agreement, the Contracting Officer may withdraw the direction to manage and/or perform a particular Capital Construction Project or, (2) direct the Contractor to proceed with the management and/or performance of the Capital Construction Project in accordance with specified terms and conditions via a unilateral contract modification. If the contractor is directed to proceed as stated above, the Contractor may be entitled to an equitable adjustment in accordance with the terms of the Contract. If the Parties are unable to agree on a request for equitable adjustment submitted by the Contractor, the matter shall be treated as a dispute under the Disputes Clause of this Contract and the Contractor shall diligently proceed with the management and/or performance of the Capital Construction Project pending the final outcome of the dispute.

(c) Construction projects that do not meet the definition of Capital Construction Projects provided in paragraph (b) of this clause, are within the scope of CLIN 0001 and shall be performed or managed by the Contractor as directed by the Government. The Government may engage with the Contractor to determine whether a construction project that is within the scope of CLIN 0001 may be suitable for performance under CLIN 0003. If the parties agree that a construction project not meeting the definition of a Capital Construction Project may be performed under CLIN 0003, the Parties shall establish the Sub-CLIN in accordance with the provisions of paragraphs a), b), and c) above and Section B-9 of this Contract.

(d) For construction projects performed under CLIN 0001, appropriate construction terms and conditions necessary for the completion of that project, and not otherwise contained in the M&O Contract, will be incorporated into the Contract or a work authorization, as appropriate. The work authorization will also include specific work requirements in accordance with applicable DOE Orders and the Contract's Section I clause entitled "DEAR 970.5211-1, Work Authorization."

H-9 LIMITATION ON PROTECTIVE FORCE SUBCONTRACTING

The Contractor shall not subcontract protective force services and responsibilities.

H-10 DEFINITION OF UNUSUALLY HAZARDOUS OR NUCLEAR RISK AND OTHER TERMS AS USED IN FAR CLAUSE 52.250-1, INDEMNIFICATION UNDER PUBLIC LAW 85-804 (ALTERNATE I – APR 1984) *[MODs 0008, 0090, 0165, 0195]*

(a) The term "a risk defined in this contract as unusually hazardous or nuclear" as used in the current contract clause means the risk of legal liability to third parties (including legal costs as defined in paragraph jj. of Section 11 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2014, notwithstanding the fact that the claim or suit may not arise under section 170 of said Act, 42 U.S.C. § 2210) arising from actions or inactions in the course of the following work performed by the Contractor under this contract:

(1) Support of DOE's Accident Response Group activities outside the United States;

(2) Training and advising a foreign government's Accident Response Group outside the United States.

(3) Conducting Joint Technical Operations Team activities outside the United States;

(4) Activities on behalf of the Department of Energy involving weapons usable material in a nonproliferation effort on behalf of the United States, outside the United States, as described in (i) through (iii):

(i) The Department of Energy's transparency monitoring activities in Russia under the U.S.-Russian Agreement Concerning the Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons dated January 18, 1993; and any extension or modification thereof;

(ii) Inspection, packaging, transportation, and storage of weapons usable nuclear material located in the Former Soviet Union, including Russia;

(iii) Participation in the Department of Energy's nuclear materials protection and accountability programs in Russia, Ukraine, and Kazakhstan, including developing such systems and consulting and training individuals, or international inspectors on such systems under the:

(I) Agreement between the Department of Energy of the United States of America and the Federal Environmental, Industrial and Nuclear Supervision Service of Russia to Cooperate on National Protection,

Control, and Accounting of Nuclear Materials (June 30, 1995), as extended and amended;

(II) Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Industry and New Technologies of the Republic of Kazakhstan for Cooperation in the Field of Nuclear Material Safeguards and Security (November 23, 2011)

(III) Agreement between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan concerning Control, Accounting, and Physical Protection of Nuclear Material to Promote the Prevention of Nuclear Weapons Proliferation dated 13 December 1993, amended and extended;

(IV) Agreement Between the United States of America and Ukraine Concerning Assistance to Ukraine in the Elimination of Strategic Nuclear Arms, and the Prevention of Proliferation of Weapons of Mass Destruction (October 25, 1993), as amended and extended;

(V) Joint Statement by the Secretary of Department of Energy of the United States of America and the Minister of the Russian Federation for Atomic Energy on Control, Accounting, and Physical Protection of Nuclear Materials dated 30 January 1996;

(VI) Joint Statement by the Secretary of Department of Energy of the United States of America and the Minister of the Russian Federation for Atomic Energy on Protection, Control, and Accounting of Nuclear Materials dated 30 June 1995; and

(VII) Protocol between the Government of the United States of America and the Government of the Russian Federation to the Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation of May 21, 2003 (dated June 14, 2013), and any extension or modification thereof.

(VIII) Agreement between the Government of the United States of America and the Government of the Russian Federation Regarding Cooperation under the Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation of May 21, 2003 and the June 14, 2013 Protocol Between the Government of the United States of America and the Government of the Russian Federation to the Framework Agreement on a Multilateral Environmental Programme in the Russian Federation of May 21, 2003 (June 14, 2013)

(5) Activities on behalf of the Department of Energy involving the supply or return of enriched uranium in a nonproliferation effort on behalf of the United States, as described in (i) through (ii):

(i) Supply of non-commercial grade uranium (typically enriched to greater than five (5) percent of the uranium-235 isotope) to authorized foreign entities for nonproliferation purposes, including but not limited to the supply of non-commercial grade uranium under the Reduced Enrichment for Research and Test Reactors program. Supply activities include project planning and management, material processing, packaging, loading, transportation planning, delivery and monitoring; and

(ii) Assistance in the Department of Energy's activities outside the United States under the Global Threat Reduction Initiative to remove and/or return noncommercial grade uranium (typically enriched to greater than five (5) percent of the uranium-235 isotope) to the United States or to another country for its disposition or protection. Assistance includes project planning and management, material loading, observation, container leak testing and tamper indicating device applications, technical support, and transportation and packaging support.

(6) Other United States-sponsored activities outside the United States, as requested or approved by the President of the United States, the Secretary of Energy, the Deputy Secretary of Energy, or the Under Secretary for Nuclear Security and provided that the request or approval specifically makes the indemnity provided by this clause applicable thereto, involving:

(i) Transparency monitoring activities;

(ii) Inspection, packaging, transportation, and storage of weapons usable nuclear material;

(iii) Nuclear materials protection, control and accountability programs known as the Material Protection Control and Accounting Systems;

(iv) Maintenance and repair of nuclear weapons conducted outside the United States, including the safe secure dismantlement of weapons outside of the United States;

(v) Responses to imminent terrorist or nuclear proliferation threats regardless of location outside the United States;

(vi) Dismantlement or conversion to non-military purposes of nuclear weapons, nuclear weapon components or nuclear materials which could be readily utilized either for the production or the fabrication of nuclear weapons without substantial further effort;

(vii) Development of the technology as part of Government programs for nuclear weapons deployment, nuclear weapons storage and stockpile stewardship, nuclear weapons transportation, nuclear weapons demilitarization/sanitization, nuclear weapons dismantlement or nuclear weapons disposition to the extent such work involves nuclear weapons located outside the United States, and

provided in all cases that the requesting or approving official determines that such work is of a kind uniquely performed at the Government-owned nuclear weapons facilities or uniquely managed or over seen by the contractor-managers of such facilities; and

(viii) Other nonproliferation work relating to weapons-useable nuclear material.

(7) As requested or approved by the President of the United States, the Secretary of Energy, the Deputy Secretary, or the Under Secretary for Nuclear Security, non-proliferation, emergency response, antiterrorism activities, or critical national security activities that involve the use, detection, identification, assessment, control, containment, assembly, dismantlement, characterization, packaging, transportation, movement, storage, or disposal of nuclear, radiological, chemical, biological, or explosive materials, facilities and/or devices; provided that the activity relates to materials that are weapons usable or otherwise have the potential for mass destruction and further provided that the request or approval specifically makes the indemnity provided by this clause applicable to that particular activity.

(8) Participation in tasks or activities by the Contractor or its subcontractors on or after March 13, 2020 through June 30, 2020 that is directed or authorized by the U.S. Department of Energy or the U.S. Department of Energy National Nuclear Security Administration, including work for others, as an element of activities taken now and through June 30, 2020 in response to COVID-19, including but not limited to efforts to test for the presence of COVID-19, to provide equipment and resources to address COVID-19, and to develop treatments and vaccines for COVID-19, to the extent the task or activity is not exempt from liability under the Public Readiness and Emergency Preparedness Act (PREP Act) or other law, or the exemption under the PREP Act or other law is limited in scope or amount which is not sufficient to provide complete protection against the liability to which the contractor is exposed.

(b) The unusually hazardous or nuclear risks described above are indemnified to the extent that they are not covered by the Price-Anderson Act, Section 170d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2210(d), or where the indemnification provided by the Price-Anderson Act is limited by the restriction on public liability imposed by section 170e. of the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2210(e), to an amount which is not sufficient to provide complete indemnification for the legal liability to which the contractor is exposed.

(c) Additional Definition of Terms

(1) As used in this H-10 clause, the term “nuclear materials” means source, special nuclear, or byproduct materials as those terms are defined in Section 11 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2014.

(2) As used in Clause I-11, entitled FAR 52.250-1 INDEMNIFICATION UNDER PUBLIC LAW 85-804 (APR 1984) (ALTERNATIVE I)(APR 1984)

(i) the term "Contractor," except as used in paragraphs (a) and (e) of I-11 FAR 52.250-1 means:

(I) Consolidated Nuclear Security, LLC (Consolidated Nuclear Security or CNS),

(II) Consolidated Nuclear Security member companies: Bechtel National, Inc., Leidos, Inc. (Leidos), ATK Launch Systems Inc. and SOC LLC, the parents companies and the affiliates of each, and

(III) Employees, officers, and directors or any of the foregoing named or threatened to be named as defendants in lawsuits or litigation threatened or initiated by third parties which seek to impose or establish, or which could result in, a risk which is defined in this contract as unusually hazardous or nuclear, on account of actions or inactions of Consolidated Nuclear Security, or on account of the actions or inactions undertaken by the corporations or individuals identified in subparagraphs (a), (b), or (c) of FAR clause 52.250-1 for, and on behalf of, or with respect to, Consolidated Nuclear Security, under this Contract;

(ii) the term "Contractor" as used in paragraphs (a) and (e) of Clause I-11 means Consolidated Nuclear Security, LLC;

(iii) the term "Contractor's business" means the management and operation of Y-12 National Security Complex (Y-12), Pantex Plant (Pantex), and Savannah River Tritium Operations (SRTO) (if option is exercised) for the Department of Energy/NNSA under this contract;

(iv) the terms "Contractor's operations at any one plant or separate location in which this contract is being performed" and "a separate and complete major industrial operation in connection with the performance of this contract" mean Y-12, Pantex and SRTO (if option is exercised) facilities located at Oak Ridge, Tennessee, Amarillo, Texas, and Aiken, South Carolina, respectively;

(v) the term "agency head" as used in this clause means the Secretary of Energy; and

(vi) the term "affiliate" as used in this clause means the member companies of Consolidated Nuclear Security (Bechtel National, Inc., Leidos, Inc. (Leidos), ATK Launch Systems, Inc., and SOC LLC), as well as companies, other than Consolidated Nuclear Security, that directly or indirectly, own or are owned or otherwise control or are controlled by the member companies of Consolidated Nuclear Security.

H-11 DOE-H-2068 CONFERENCE MANAGEMENT (MAR 2023) *[MODS 0015, 0042, 0291]*

The Contractor agrees that:

(a) The contractor shall ensure that contractor-sponsored conferences, and contractor participation in DOE conferences sponsored by a Departmental Element, reflect the DOE/NNSA's commitment to fiscal responsibility, appropriate stewardship of taxpayer funds and support the mission of DOE/NNSA as well as other sponsors of work. In addition, the contractor shall ensure its sponsored conferences do not include any activities that create the appearance of taxpayer funds being used in a questionable manner.

(b) For the purposes of this clause, "conference" is first defined by the Federal Travel Regulation (FTR) as "[a] meeting, retreat, seminar, symposium, or event that involves attendee travel. The term 'conference' also applies to training activities that are considered to be conferences under 5 C.F.R 410.404." Additionally, the Department's conference activity reporting guideline expands the FTR conference definition to disregard attendee travel as a determining factor, i.e., reporting can be required without the existence of attendee travel.

(c) Contractor-sponsored conferences include those events that meet the Department's expanded conference definition, and a DOE contractor holds the role of primary decision-maker for key planning items such as conference theme, agenda, location/venue, dates, and conference participation.

(d) Merely providing the contractor's facility space for a conference, or contractor staff participating in a conference, or procuring conference booth space, giving a speech, or serving as an honorary chairperson does not connote contractor sponsorship.

(e) The contactor will provide information on conferences they plan to sponsor, when expected costs exceed $100,000 in net costs to the Department, in the Department's Conference Management Tool (CMT), including:

1) Conference title, description, and date
2) Location and venue
3) Description of any unusual expenses (e.g., promotional items)
4) Description of contracting procedures used (e.g., competition for space/support)
5) Costs for space, food/beverages, audio visual, travel/per diem, attendee registration costs
6) Number of attendees

(f) The contractor will not expend funds on the proposed contractor-sponsored conferences with expenditures estimated to exceed $100,000 until notified of approval by the contracting officer and approved by the corresponding federal executive oversight entity.

(g) For DOE-sponsored conferences (i.e., sponsored by a Departmental Element), the contractor will not expend funds on the proposed conference that exceeds $100,000 in net estimated DOE cost, until it is approved in the CMT by the management of the Departmental Element sponsoring the conference,

1) DOE-sponsored conferences include events that meet the Department's expanded conference definition, and a Departmental Element holds the role of primary decision-maker for key planning items such as conference theme, agenda, location/venue, dates and conference participation.
2) Merely providing Federal facility space for a conference, or Federal staff participating in a conference, or procuring conference booth space, giving a speech, or serving as an honorary chairperson does not connote DOE sponsorship.
3) The contractor will provide cost and attendance information on their participation in all DOE- sponsored conferences in the DOE Conference Management Tool.

(h) For conferences sponsored by a non-DOE external entity, the contractor shall develop and implement a process to ensure costs related to such conferences are tracked, allowable, allocable, reasonable, and further the mission of DOE/NNSA.

(i) Contractors are not required to enter participation or cost information on conferences sponsored by a non-DOE external entity in DOE'S Conference Management Tool.

(End of clause)

H-12 MANAGEMENT AND OPERATING (M&O) SUBCONTRACT REPORTING (SEP 2015) *[MOD 0042]*

(a) *Definitions.* As used in this clause—

"First-tier subcontract" means a subcontract awarded directly by the Contractor for the purpose of acquiring supplies or services (including construction) for performance of a prime contract. It does not include the Contractor's supplier agreements with vendors, such as long-term arrangements for materials or supplies that would benefit multiple contracts and/or the costs of which are normally applied to a Contractor's general and administrative expenses or indirect cost.

"M&O Subcontract Reporting Capability (MOSRC)" means a DOE system and associated processes to collect key information about M&O first-tier subcontracts for reporting to the Small Business Administration.

"Transaction" means any awarded contract, agreement, order, or modification, etc. (other than one involving an employer-employee relationship) entered into by a DOE M&O prime contractor calling for supplies and services (including construction) required solely for performance of the prime contract.

(b) *Limited Interim Reporting*.

(1) The Contractor shall report no less than the twenty highest dollar value first-tier small business subcontract transactions under the contract by December 1 for the previous fiscal year until the Contractor business systems can report the required data as set forth in paragraph (c) below. Classified subcontracts shall be excluded from the reporting requirement and shall not be counted towards the total number of transactions of the reporting requirement.

(2) Transactions with a corporation, company, or subdivision that is an affiliate of the Contractor are not included in these reports.

(3) The Contractor shall provide the data on first-tier small business subcontract transactions under the contracts, as described in the *MOSRC Guide* via the Microsoft Excel spreadsheet co-located at https://max.gov in the MOSRC Collaboration Center. The spreadsheet will be submitted to HQProcurementSystems@hq.doe.gov.

(c) *Full Reporting.* The Contractor shall update their business systems and processes to collect and report data to MOSRC in compliance with the MOSRC Guide. The Contractor shall report data in MOSRC for FY17 (and each year thereafter) first-tier small business subcontracting transactions under the contract. Classified subcontracts shall be excluded from the reporting requirements. All Contractor systems shall be updated in order to provide the first FY17 report in November 2016 for October 2016 transactions.

(d) *Pilot M&Os.* Oak Ridge National Laboratory, the National Security Campus at the Kansas City Plant, and the National Renewable Energy Laboratory shall have their business systems updated in order to provide the first FY 16 report in April 2016 for March 2016 transactions.

(End of Clause)

H-13 PRIVACY ACT SYSTEMS OF RECORDS *[MOD 0091]*

DOE System No.	Title
DOE-5	Former Contractor Employees
DOE-31	Firearms Qualifications Records
DOE-33	Personnel Medical Records
DOE-35	Personnel Radiation Exposure
DOE-38	Occupational and Industrial Accident Records

DOE-43	Personnel Security Clearance Files
DOE-45	Weapon Data Access Control System
DOE-48	Security Education and/or Infraction Reports
DOE-50	Human Reliability Program (HRP)
DOE-51	Employee and Visitor Access Control System
DOE-77	Physical Fitness Records

The above list shall be revised from time to time by mutual agreement between the Contractor and the Contracting Officer as may be necessary to keep it current. Such changes need not be formally incorporated into the Contract, but shall have the same effect as if actually listed above for the purpose of satisfying the listing requirement contained in Paragraph (a)(1) of the Contract clause entitled "Privacy Act."

H-14 LABORATORY, PLANT AND SITE STRATEGIC PLANNING *[MOD 0175]*

The Contractor shall submit to DOE/NNSA a laboratory, plant or site strategic plan annually in accordance with the annual strategic planning guidance and the terms and conditions of the contract or as directed by the Contracting Officer. The laboratory, plant, or site M&O management team shall present their plans and engage in discussions with senior DOE/NNSA leadership annually, if required in the annual strategic planning guidance, and as directed by the Contracting Officer.

H-15 PAID LEAVE UNDER SECTION 3610 OF THE CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITYACT (CARES ACT) TO MAINTAIN EMPLOYEES AND SUBCONTRACTORS IN A READY STATE (OCTOBER 2020). *[MODs 0196, 0212, 0216, 0220, 0225]*

(a) The Contractor may submit for reimbursement and the Government (without requiring consideration but precluding additional fee) will treat as allowable (if otherwise allowable per federal regulations) the costs of paid leave (including sick leave) the Contractor or its subcontractors provide to keep employees in a ready state if--

(1) The employees: cannot perform work on a site approved by the Federal Government (including a federally-owned or leased facility or site) due to facilities closures or other restrictions; and cannot telework because their job duties cannot be performed remotely during the public health emergency declared on January 31, 2020 for COVID–19.

(2) The costs are incurred from January 31, 2020 through September 30, 2021.

(i) The costs do not reflect any amount exceeding an average of 40 hours per week for paid leave.

(b) Where other relief provided for by the CARES Act or any other Act would benefit the contractor or the contractor's subcontractors, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act, the contractor should evaluate the applicability of such benefits in seeking reimbursement under the contract.

(c) The Contractor must represent in any request for reimbursement--

(i) Either it: has not received, has not claimed, and will not claim any other reimbursement, including claims for reimbursement via letter of credit, for federal funds available under the CARES Act for the same purpose, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act; or if it has received, claimed, or will claim other reimbursement, that reimbursement has been reflected, or will be reflected when known, in requests for reimbursement but in no case reflected later than in its final proposal to determine allowable incurred costs.

(ii) Its request reflects or will reflect as soon as known all applicable credits, including:

(iii) Tax credits, including credits allowed pursuant to division G of Public Law 116-127; and

(iv) Applicable credits allowed under the CARES Act including applicable credits for loan guarantees.

(End of Clause)

H-16 CORONAVIRUS (COVID-19) VACCINE *[MOD 0217]*

The Contractor, as an authorized COVID-19 Vaccination Program Provider, may administer COVID-19 vaccinations to Contractor employees, federal employees, NNSA support service contractor employees, employees of other DOE management and operating contractors, and/or others, in accordance with work authorization requirements, Inter-Contractor Purchase requirements, and/or other written direction provided by the Contracting Officer or the Contracting Officer Representative. The Contractor shall perform such duties in accordance with Federal and State laws, regulations, and guidelines, including direction from any Authority Having Jurisdiction (as that term is defined by relevant Public Readiness and Emergency Preparedness Act Declarations), applicable Vaccination Program Provider Agreements, and any other applicable COVID-19 immunization direction applicable to the Contractor as a condition of receipt of COVID-19 vaccine doses.

(End of Clause)

H-17 PROHIBITION ON FUNDING FOR CERTAIN NONDISCLOSURE AGREEMENTS *[MOD 0227]*

The Contractor agrees that:

a) No cost associated with implementation or enforcement of nondisclosure policies, forms or agreements shall be allowable under this contract if such policies, forms or agreements do not contain the following provisions: ‘‘These provisions are consistent with and do not supersede,

conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.''

b) The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

c) Notwithstanding the provisions of paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

H-18 PERSONAL PROTECTIVE EQUIPMENT (PPE) STRATEGIC RESERVE *[MOD 0230]*

The Contractor shall maintain the Site NNSA Strategic Reserve of critical PPE and cleaning consumables for all onsite federal employees, M&O contractor and subcontractor (if applicable) employees, and routine visitors to support continuity of critical mission work including Primary Mission Essential Functions (PMEFs), Mission Essential Functions (MEFs), and Essential Supporting Activities (ESAs), sufficient to sustain normal operations for a minimum of 120 days or as directed by the Contracting Officer. The Contractor shall provide PPE inventory data into the SAFER-PPE reporting tool monthly or as directed by the Contracting Officer.

(End of Clause)

H-19 DOE-H-2084 MITIGATING SUPPLY CHAIN RISK (OCT 2022) *[MOD 0291]*

DOE/NNSA utilizes a Supply Chain Risk Management (SCRM) Program to identify, assess, and monitor supply chain risks of critical vendors. The Government may use any information, public and non-public, including all-source intelligence for its analysis. The Contractor agrees that the Government may, at its own discretion, perform audits of supply chain risk processes or events consistent with other terms in the contract regarding access to records and audits. An onsite assessment may be required. Through the information obtained from a SCRM program, DOE may assess vendors and products through multiple risk lenses such as national security,

cybersecurity, compliance, and finance. If supply chain risks are identified and corrective action becomes necessary, mutually agreeable corrective actions will be sought based upon specific identified risks. Failure to resolve any identified risk may result in contract termination.

(End of Clause)

H-20 DOE-H-2085 MITIGATING SUPPLY CHAIN RISK USING ENHANCED PROCUREMENT AUTHORITY FOR INFORMATION AND COMMUNICATION TECHNOLOGY (OCT 2022) ***[MOD 0291]***

(a) *Definitions.* As used in this clause –

Covered article - The term "covered article" includes –

(1) “Information technology” which means –

(i) any equipment or interconnected system or subsystem of equipment, used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the executive agency, if the equipment is used by the executive agency directly or is used by a contractor under a contract with the executive agency that requires the use –

(A) of that equipment, or

(B) of that equipment to a significant extent in the performance of a service or the furnishing of a product;

(ii) computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including support services), and related resources; however,

(iii) does not include any equipment acquired by a federal contractor incidental to a federal contract.

(2) “Telecommunications Equipment”, which means equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to such equipment (including upgrades).

(3) “Telecommunications Service”, which means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

(4) the processing of information on a Federal or non-Federal information system, subject to the requirements of the Controlled Unclassified Information program; or

(5) hardware, systems, devices, software, or services that include embedded or incidental information technology.

Supply Chain Risk - The term "Supply Chain Risk" means the risk that a person may sabotage, maliciously introduce unwanted function, extract data, or otherwise manipulate the design, integrity, manufacturing, production, distribution, installation, operation, maintenance, disposition, or retirement of covered articles so as to surveil, deny, disrupt, or otherwise manipulate the function, use, or operation of the covered articles or information stored or transmitted on the covered articles.

(b) The Contractor shall take all prudent actions, and comply with all Government directions (as identified in (c)), to mitigate supply chain risk when providing covered articles or services affecting covered articles to the Government.

(c) In order to manage supply chain risk, the Government may use the authority provided by 41 U.S.C. 4713 to, among other things, withhold consent for the Contractor to subcontract with a particular source or direct the Contractor to exclude a particular source from consideration for a subcontract under the contract.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of Clause)

H-21 DOE-H-2086 MITIGATING SUPPLY CHAIN RISK USING ENHANCED PROCUREMENT AUTHORITY FOR NATIONAL SECURITY SYSTEMS, NUCLEAR WEAPONS COMPONENTS AND ASSOCIATED ITEM (OCT 2022) *[MOD 0291]*

(a) *Definitions.* As used in this clause–
(1) "Covered system" means-

(A) National security systems (as defined at 44 U.S. Code § 3552) and components of such systems;

(B) Nuclear weapons and components of nuclear weapons;

(C) Items associated with the design, development, production, and maintenance of nuclear weapons or components of nuclear weapons;

(D) Items associated with the surveillance of the nuclear weapon stockpile; or

(E) Items associated with the design and development of nonproliferation and counterproliferation programs and systems.

(2) "Covered item of supply" means an item—

(A) that is purchased for inclusion in a covered system; and

(B) the loss of integrity of which could result in a supply chain risk for a covered system.

(3) "Supply Chain Risk" means the risk that an adversary may sabotage, maliciously introduce unwanted function, or otherwise subvert the design, integrity, manufacturing, production, distribution, installation, operation, or maintenance of a covered system or covered item of supply so as to surveil, deny, disrupt, or otherwise degrade the function, use, or operation of the system or item of supply.

(b) The Contractor shall take all prudent actions, and comply with all Government directions (as identified in (c)), to mitigate supply chain risk when providing covered systems or covered items of supply to the Government, and services affecting covered systems or covered items of supply.

(c) In order to manage supply chain risk, the Government may use the authority provided by 50 U.S.C. 2786, to, among other things, withhold of consent for the Contractor to subcontract with a particular source or direct the Contractor to exclude a particular source from consideration for a subcontract under the contract When the Government exercises this authority, it will only provide the Contractor with information pertaining to the basis of the action to the extent necessary to carry out the action. No action taken by the Government pursuant to 50 U.S.C. § 2786 shall be subject to review in any Federal court.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of Clause)

H-22 DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM (DPAS) PRIORITY RATING (JUN 2024) *[MOD 0334]*

(a) DPAS-Rated Order. As indicated in Block 1 of SF33, this contract is a DX- and DO-rated order certified for national defense use (subject to limitations in (b) below) and the Contractor is required to follow all the provisions of the Defense Priorities and Allocations System ("DPAS") regulations (15 CFR § 700, et seq.). In the event that any provision of the DPAS regulations conflict with any provision of this clause, the DPAS regulations control.

(b) Scope of DPAS Rating. Though this contract is rated as DX and DO, only those portions of this contract for materials (including equipment), services, or facilities necessary for the national defense, as outlined in (b)(1) and (b)(2), are considered rated.The authority granted under this clause is not applicable to Strategic Partnership Projects (SPP) (see (g)).

(1) DO. Items and related services in support of programs approved for priorities and allocations support by the Secretary of Defense with respect to military production and construction, military assistance to any foreign nation, space, stockpiling, and directly related activities are rated as DO upon establishment of a required delivery date (see (c)). Approved programs for assignment of a DO rating are:

Program Identification Symbol	Approved Program
A1	Aircraft
A2	Missiles
A5	Weapons
A6	Ammunition
A7	Electronics and communications equipment
B9	Production equipment (Government-owned)
C9	Miscellaneous

(2) DX. Items and when applicable, related services in support of programs designated by the Secretary of Defense to be of the Highest National Priority as described in the Department of Defense (DoD) List of DX-Rated Programs are rated as DXA2 upon establishment of a required delivery date or dates (see (c)). The DoD List of DX-Rated Programs is limited to only a small number of programs approved by the Department of Defense, and the Contractor shall not use a DX-A2 priority rating on any subcontracts other than those in support of a program identified in the DoD List of DX-Rated Programs. At the Contractor's request, NNSA can provide a current DoD List of DX-Rated Programs to the Contractor.

(c) Required Delivery Dates. If not expressly identified in this contract, the required delivery date for DPAS-rated items and related services is as specified in writing by the cognizant NNSA Program Office or Field Office.

(d) Placing DPAS Ratings on Subcontracts.

(1) Subcontracts that May be Assigned DPAS Ratings. When placing subcontracts that directly support a DPAS-rated portion of this contract, the Contractor may, if necessary, place DPAS-rated subcontract orders for:

(i) Items (as defined in 15 CFR § 700.8) which will be physically incorporated into other items to fill a rated portion of this contract, including that portion of such

items normally consumed, or converted into scrap or by-products, in the course of processing;

(ii) Containers or other packaging materials required to make delivery of the finished items required under a rated portion of this contract;

(iii) Services, other than contracts of employment, needed to fill a rated portion of this contract;

(iv) Maintenance and repair and/or operating supplies (as defined in 15 CFR § 700.8) needed to produce the finished items to fill rated orders.

(2) Subcontracts that Shall Not be Assigned DPAS Ratings. Notwithstanding (d)(1), subcontracts shall not be assigned DPAS ratings to obtain:

(i) Any items that (i) are commonly available in commercial markets for general consumption; (ii) do not require major modification when purchased for approved program use; and (iii) are readily available in sufficient quantity so as to cause no delay in meeting approved program requirements;

(ii) Any items to be used primarily for administrative purposes, such as for personnel or financial management;

(iii) Delivery of items or services on a date earlier than needed;

(iv) A greater quantity of the item than needed, except to obtain a minimum procurable quantity;

(v) Any items related to the development of chemical or biological warfare capabilities or the production of chemical or biological weapons, unless such development or production has been authorized by the President or the Secretary of Defense; or

(vi) Copper raw materials, crushed stone, gravel, sand, scrap, slag, central steam heat or waste paper;

(vii) Any items subject to the authorities granted exclusively to other agencies by Executive Order 13603 (e.g., health resources, civil transportation, etc.).

(3) Subcontract Terms. The Contractor shall ensure that any rated subcontracts are appropriately rated and contain terms substantially the same as (a) and (d) of this clause.

(e) Contractor's Responsibility. It is the Contractor's responsibility to ensure that it complies

with DPAS regulations, this clause, and other pertinent authorities. Though the Government may review certain Contractor subcontract solicitation and award documents (in accordance with other provisions of this Contract), that review shall not be construed as consent that the Contractor's choice to rate a subcontract is appropriate. If the Contractor has specific questions regarding the rating on this Contract or its applicability to subcontracts, the Contractor has an affirmative duty to seek clarification from the appropriate contracting officer.

(f) Records and Reporting Requirements.

(1) Record Retention. Notwithstanding any other provision of this contract, the Contractor shall maintain and preserve for at least three years, accurate and complete records related to any DPAS-rated subcontract.

(2) Reporting. On a semi-annual basis (January 15 and July 15 of each year), the Contractor shall provide to the Contracting Officer a summary of all DPAS-rated subcontract orders placed in the preceding six, calendar months by the Contractor. This information shall be contained in a sortable Microsoft® Excel spreadsheet with the following information (contained in separate columns):

(i) Date the rated subcontract order was placed;
(ii) Subcontract order identification number;
(iii) Description of items or services acquired;
(iv) Rating and Approved Program Identifier assigned to the subcontract (e.g., DO-A2); and
(v) A detailed justification for the rating assigned.

(g) SPP. The priority ratings assigned to the Contract are not authorized for use in support of SPP. Use of DPAS priority ratings for SPP is governed by the priority rating, if any, assigned by the Non-DOE/non-NNSA entity requesting the work. The Contractor is responsible for complying with instructions provided by the non-DOE/non-NNSA entity regarding the applicability of DPAS to SPP.

(End of Clause)

PART II – CONTRACT CLAUSES

SECTION I

CONTRACT CLAUSES

Notice: Clauses incorporated by reference.

I-1 FAR CLAUSES INCORPORATED BY REFERENCE

The references cited herein are from the Federal Acquisition Regulation (FAR) (48 CFR Chapter 1). The following FAR clauses are hereby incorporated by reference:

FAR (48 CFR CHAPTER 1) CLAUSES
May 28, 2015
[Replaced or updated by MODs 0008, 0015, 0034, 0091, 0106, 0165, 0184, 0255, 0288, 0291, 0303]

FAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
52.203-3	Gratuities	Apr 1984
52.203-5	Covenant Against Contingent Fees	Apr 1984
52.203-6	Restrictions on Subcontractor Sales to the Government	Sep 2006
52.203-7	Anti-Kickback Procedures	Oct 2010
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	Jan 1997
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity	Jan 1997
52.203-12	Limitation on Payments to Influence Certain Federal Transactions	Oct 2010
52.203-13	Contractor Code of Business Ethics and Conduct *[MOD 0106, 0303]*	Nov 2021
52.203-14	Display of Hotline Poster(s) *[MOD 0106]* ***https://energy.gov/sites/prod/files/2016/04/f30/IG%20Flyer%204-1-16%20no%20trim%20mark%208-5x11.jpg***	Oct 2015
52.203-17	Contractor Employee Whistleblower Rights and Requirements to Inform Employees of Whistleblower Rights *[MOD 0034]*	Apr 2014
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements *[MOD 0106]*	Jan 2017
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	May 2011
52.204-7	System for Award Management *[MOD 0015]*	July 2013
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards *[MODs 0015, 0106]*	Oct 2016
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities *[MOD 0165]*	Jul 2018
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment *[MOD 0184]*	Aug 2019
52.204-27	Prohibition on a ByteDance Covered Application *[MOD 0291]*	Jun 2023

FAR (48 CFR CHAPTER 1) CLAUSES
May 28, 2015
[Replaced or updated by MODs 0008, 0015, 0034, 0091, 0106, 0165, 0184, 0255, 0288, 0291, 0303]

FAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment *[MODs 0015, 0106]*	Oct 2015
52.209-10	Prohibition on Contracting with Inverted Domestic Corporations *[MOD 0015]*	May 2012
52.210-1	Market Research	Apr 2011
52.211-5	Material Requirements	Aug 2000
52.215-2	Audit and Records -- Negotiation	Oct 2010
52.215-8	Order of Precedence -- Uniform Contract Format	Oct 1997
52.215-12	Subcontractor Certified Cost or Pricing Data	Oct 2010
52.215-13	Subcontractor Certified Cost or Pricing Data -- Modifications	Oct 2010
52.215-15	Pension Adjustments and Asset Reversions	Oct 2010
52.215-17	Waiver of Facilities Capital Cost of Money	Oct 1997
52.215-23	Limitations on Pass-Through Charges	Oct 2009
52.219-8	Utilization of Small Business Concerns	Jul 2013
52.219-9	Small Business Subcontracting Plan - Alt II *[MODs 0015, 0106]*	Jan 2017
52.219-16	Liquidated Damages -- Subcontracting Plan	Jan 1999
52.219-25	Small Disadvantaged Business Participation Program - Disadvantaged Status and Reporting *[MOD 0015]*	Jul 2013
52.222-1	Notice to the Government of Labor Disputes	Feb 1997
52.222-3	Convict Labor	Jun 2003
52.222-4	Contract Work Hours and Safety Standards Act -- Overtime Compensation	Jul 2005
52.222-6	Davis-Bacon Act	Jul 2005
52.222-7	Withholding of Funds	Feb 1988
52.222-8	Payrolls and Basic Records	Jun 2010
52.222-9	Apprentices and Trainees	Jul 2005
52.222-10	Compliance with Copeland Act Requirements *[MOD 0015]*	Feb 1998
52.222-11	Subcontracts (Labor Standards)	Jul 2005
52.222-12	Contract Termination – Debarment	Feb 1988
52.222-13	Compliance with Davis-Bacon and Related Act Regulations	Feb 1988
52.222-14	Disputes Concerning Labor Standards	Feb 1988
52.222-15	Certification of Eligibility	Feb 1988
52.222-16	Approval of Wage Rates	Feb 1988
52.222-20	Walsh-Healey Public Contracts Act	Oct 2010

FAR (48 CFR CHAPTER 1) CLAUSES
May 28, 2015
[Replaced or updated by MODs 0008, 0015, 0034, 0091, 0106, 0165, 0184, 0255, 0288, 0291, 0303]

FAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
52.222-21	Prohibition of Segregated Facilities	Feb 1999
52.222-26	Equal Opportunity	Mar 2007
52.222-29	Notification of Visa Denial	Jun 2003
52.222-35	Equal Opportunity for Veterans *[MOD 0106]*	Oct 2015
52.222-36	Equal Opportunity for Workers With Disabilities *[MOD 0034]*	Jul 2014
52.222-37	Employment Reports on Veterans *[MOD 0106]*	Feb 2016
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	Dec 2010
52.222-50	Combating Trafficking in Persons	Feb 2009
52.222-54	Employment Eligibility Verification *[MODs 0015, 0106]*	Oct 2015
52.222-55	Minimum Wages Under Executive Order 13658 *[MOD 0106]*	Dec 2015
52.222-62	Paid Sick Leave Under Executive Order 13706 *[MOD 0288]*	Jan 2022
52.223-2	Affirmative Procurement of Biobased Products Under Service and Construction FAR Contracts *[MOD 0015]*	Sep 2013
52.223-3	Hazardous Material Identification and Material Safety Data, Alternate I (Jul 1995) *(b) Nothing identified to date.*	Jan 1997
52.223-5	Pollution Prevention and Right-to-Know Information, Alternate I (May 2011)	May 2011
52.223-6	Drug Free Workplace *[MOD 0015]*	May 2001
52.223-10	Waste Reduction Program	May 2011
52.223-12	Refrigeration Equipment and Air Conditioners	May 1995
52.223-15	Energy Efficiency in Energy-Consuming Products	Dec 2007
52.223-16	IEEE 1680 Standard for Environmental Assessment of Personal Computer Products Alt I *[MOD 0015]*	Dec 2007
52.223-17	Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts	May 2008
52.223-18	Encouraging Contractor Policies to Ban Text Messaging While Driving	Aug 2011
52.224-1	Privacy Act Notification	Apr 1984
52.224-2	Privacy Act	Apr 1984
52.225-1	Buy American Act—Supplies	Feb 2009
52.225-8	Duty Free Entry *[MOD 0106]*	Oct 2010
52.225-13	Restriction on Certain Foreign Purchases	Jun 2008
52.226-1	Utilization of Indian Organizations and Indian-Owned Economic Enterprises	Jun 2000

FAR (48 CFR CHAPTER 1) CLAUSES
May 28, 2015
[Replaced or updated by MODs 0008, 0015, 0034, 0091, 0106, 0165, 0184, 0255, 0288, 0291, 0303]

FAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
52.227-10	Filing of Patent Applications -- Classified Subject Matter	Dec 2007
52.228-12	Prospective Subcontractor Requests for Bonds	Oct 1985
52.228-15	Performance and Payment Bonds – Construction *[MOD 0015]*	Oct 2010
52.229-8	Taxes -- Foreign Cost-Reimbursement Contracts *(a) Name of foreign government is 'the foreign country(ies) referenced in the applicable Work Authorization or as specified by the Contracting Officer'. Name of country is 'exempt under the laws of 'the Country(ies) referenced in the applicable Work Authorization or as specified by the Contracting Officer'.*	Mar 1990
52.230-2	Cost Accounting Standards *[MODs 0015, 0106]*	Oct 2015
52.230-6	Administration of Cost Accounting Standards	Jun 2010
52.232-17	Interest	Oct 2010
52.232-18	Availability of Funds	Apr 1984
52.232-24	Prohibition of Assignment of Claims	Jan 1986
52.233-1	Disputes, Alternate I (Dec 1991)	July 2002
52.233-3	Protest After Award, Alternate I (Jun 1985)	Aug 1996
52.233-4	Applicable Law for Breach of Contract Claim	Oct 2004
52.236-5	Material and Workmanship	Apr 1984
52.236-7	Permits and Responsibilities	Nov 1991
52.236-18	Work Oversight in Cost-Reimbursement construction Contracts	Apr 1984
52.236-19	Organization and Direction of the Work	Apr 1984
52.236-24	Work Oversight in Architect-Engineer contracts	Apr 1984
52.236-25	Requirements for Registration of Designers *[MOD 0015]*	Jun 2003
52.237-3	Continuity of Services	Jan 1991
52.242-1	Notice of Intent to Disallow Costs	Apr 1984
52.242-3	Penalties for Unallowable Costs *[MOD 0255]*	Sep 2021
52.242-13	Bankruptcy	Jul 1995
52.244-2	Subcontracts *[MOD 0015]*	Oct-10
52.244-5	Competition in Subcontracting	Dec 1996
52.244-6	Subcontracts For Commercial Products and Commercial Services *[MOD 0015, MOD 0291]*	Jun 2023
52.247-1	Commercial Bill of Lading Notations *(a) Specific agency is 'U.S. Department of Energy, National Nuclear Security Administration'.* *(b) Specific agency is 'U.S. Department of Energy, National Nuclear Security Administration'. Contract No. is 'DE-NA0001942'. Contact is 'the Contracting Officer'.*	Feb 2006

FAR (48 CFR CHAPTER 1) CLAUSES
May 28, 2015
[Replaced or updated by MODs 0008, 0015, 0034, 0091, 0106, 0165, 0184, 0255, 0288, 0291, 0303]

FAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
52.247-63	Preference for U.S.-Flag Air Carriers	June 2003
52.247-64	Preference for Privately Owned U.S.-Flag Commercial Vessels	Feb 2006
52.249-6	Termination (Cost-Reimbursement)	May 2004
52.249-14	Excusable Delays	Apr 1984
52.251-1	Government Supply sources *[MOD 0015]*	Apr 2012
52.251-2	Interagency Fleet Management System Vehicles and Related Services	Jan 1991
52.253-1	Computer Generated Forms	Jan 1991

I-2 DEAR CLAUSES INCORPORATED BY REFERENCE

The references cited herein are from the U.S. Department of Energy Acquisition Regulation (DEAR) (48 CFR Chapter 9). The following DEAR clauses are hereby incorporated by reference:

DEAR (48 CFR CHAPTER 9) CLAUSES

[Replaced or updated by MODs 0015, 0091, 0106, 0181, 0255, 0276, 0344]

DEAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
952.203-70	Whistleblower Protection for Contractor Employees	Dec 2000
952.204-2	Security *[MOD 0181]*	Aug 2016
952.204-70	Classification/Declassification	Sep 1997
952.204-71	Sensitive Foreign Nations Controls	Mar 2011
952.204-75	Public Affairs	Dec 2000
952.204-77	Computer Security	Aug 2006
952.208-7	Tagging of Leased Vehicles	Apr 1984
952.208-70	Printing *[MOD 0015]*	Apr 1984
952.209-72	Organizational Conflicts of Interest, Alternate I *(b)(1)(i) Period is 'five (5) years'.*	Aug 2009
952.211-71	Priorities and Allocations (ATOMIC ENERGY)	Apr 2008
952.215-70	Key Personnel *(a) Cross-reference is 'Section J, Appendix J'.*	Dec 2000
952.217-70	Acquisition of Real Property	Mar 2011
952.223-75	Preservation of Individual Occupational Radiation Exposure Records	Apr 1984
952.223-78	Sustainable Acquisition Program	Oct 2010
952.226-74	Displaced Employee Hiring Preference	Jun 1997

DEAR (48 CFR CHAPTER 9) CLAUSES

[Replaced or updated by MODs 0015, 0091, 0106, 0181, 0255, 0276, 0344]

DEAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
952.227-82	Rights to Proposal Data *Pages is 'all'. Date is 'November 6, 2012'.*	Apr 1994
952.236-71	Inspection in Architect-Engineer contracts *[MOD 0015]*	Apr 1994
952.242-70	Technical Direction *[MOD 0015]*	Dec 2000
952.247-70	Foreign Travel	Jun 2010
952.251-70	Contractor Employee Travel Discount	Aug 2009
970.5203-2	Performance Improvement and Collaboration *[MODs 0015, 0091]*	May 2006
970.5204-1	Counterintelligence	Dec 2010
970.5208-1	Printing	Dec 2000
970.5211-1	Work Authorization	May 2007
970.5217-1	Work for Others Program (Non-DOE Funded Work)	Jan 2005
970.5222-1	Collective Bargaining Agreements-Management and Operating Contracts	Dec 2000
970.5222-2	Overtime Management (a) The Contractor shall maintain adequate internal controls to ensure that employee overtime is authorized only if cost effective and necessary to ensure performance of work under this contract. *In addition, no costs may be incurred for employee overtime associated with training and education unless the Contractor obtains express written approval in advance from the agency approving official.*	Dec 2000 (DEVIATION)
970.5223-1	Integration of Environment, Safety, and Health into Work Planning and Execution	Dec 2000
970.5223-3	Agreement Regarding Workplace Substance Abuse Programs at DOE Sites *[MODs 0015, 0091]*	Dec 2010
970.5223-4	Workplace Substance Abuse Programs at DOE Sites	Dec 2010
970.5223-6	Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management	Oct 2010
970.5223-7	Sustainable Acquisition Program	Oct 2010
970.5226-2	Workforce Restructuring Under Section 3161 of the National Defense Authorization Act for Fiscal Year 1993	Dec 2000
970.5226-3	Community Commitment	Dec 2000
970.5227-4	Authorization and Consent	Aug 2002
970.5227-5	Notice and Assistance Regarding Patent and Copyright Infringement	Aug 2002
970.5227-6	Patent Indemnity-Subcontracts	Dec 2000
970.5227-8	Refund of Royalties	Aug 2002
970.5228-1	Insurance- Litigation and Claims *[MOD 0015]*	Jul 2013
970.5229-1	State and Local Taxes	Dec 2000
970.5232-1	Reduction or Suspension of Advance, Partial, or Progress Payments	Dec 2000

DEAR (48 CFR CHAPTER 9) CLAUSES

[Replaced or updated by MODs 0015, 0091, 0106, 0181, 0255, 0276, 0344]

DEAR NUMBER	CLAUSE TITLE *(Any insertions appear below the title in italics)*	DATE OF CLAUSE
970.5232-4	Obligation of Funds	Dec 2000
970.5232-5	Liability with Respect to Cost Accounting Standards	Dec 2000
970.5232-7	Financial Management System *[MOD 0255]*	Oct 2021
970.5232-8	Integrated Accounting *[MOD 0255]*	Oct 2021
970.5236-1	Government Facility Subcontract Approval	Dec 2000
970.5243-1	Changes	Dec 2000
970.5245-1	Property *[MOD 0015]*	Jan 2013

Notice II: Clauses incorporated in full text.

I-3 FAR 52.202-1 DEFINITIONS (NOV 2013) (AS MODIFIED BY DEAR 952.202-1) *[MOD 0015]*

When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless-

(a) The solicitation, or amended solicitation, provides a different definition;

(b) The contracting parties agree to a different definition;

(c) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or

(d) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

(e) When a solicitation provision or contract clause uses a word or term that is defined in the Department of Energy Acquisition Regulation (DEAR) (48 CFR chapter 9), the word or term has the same meaning as the definition in 48 CFR 902.101 or the definition in the part, subpart, or section of 48 CFR chapter 9 where the provision or clause is prescribed in effect at the time the solicitation was issued, unless an exception in (a) applies.

I-4 FAR 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JUL 2013) *[MOD 0015]*

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the System for Award Management database via https://www.acquisition.gov.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consist of two segments—

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by—

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for--

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

I-5 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within 30 days of contract expiration*;* provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 10 years.

I-6 FAR 52.223-7 NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, *30* days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either

(1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or

(2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries.

Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall --

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are

delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

I-7 FAR 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA DESIGNATED ITEMS (MAY 2008)

(a) *Definitions.* As used in this clause—

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material."

"Recovered material" means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of postconsumer material content; and

(2) Submit this estimate to *the Contracting Officer.*

I-8 FAR 52.223-11 OZONE-DEPLETING SUBSTANCES (MAY 2001)

(a) *Definition. "Ozone-depleting substance,"* as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as--

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II, including, but not limited to hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

Warning

Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

* The Contractor shall insert the name of the substance(s).

I-9 FAR 52.225-9 BUY AMERICAN ACT–CONSTRUCTION MATERIALS (MAY 2014) *[MOD 0091]*

(a) *Definitions*. As used in this clause--

"Commercially available off-the-shelf (COTS) item"—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs,

but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States, the District of Columbia, and outlying areas.

(b) *Domestic preference.*

(1) This clause implements the 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows: None.

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the

cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American statute.*

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including—

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *

Item 1			
Foreign construction material			
Domestic construction material			
Item 2			
Foreign construction material			
Domestic construction material			

[*List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.*]

[*Include other applicable supporting information*

[**Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

(End of Clause)

I-10 FAR 52.247-67 SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT (FEB 2006)

(a) The Contractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid –

(1) By the Contractor under a cost-reimbursement contract; and

(2) By a first-tier subcontractor under a cost-reimbursement subcontract thereunder.

(b) Cost-reimbursement Contractors shall only submit for audit those bills of lading with freight shipment charges exceeding $100. Bills under $100 shall be retained on-site by the Contractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(c) Contractors shall submit the above referenced transportation documents to—

DOE Automated Transportation System in accordance with DOE Orders.

I-11 FAR 52.250-1 INDEMNIFICATION UNDER PUBLIC LAW 85-804 (APR 1984) ALTERNATE I (APR 1984) SEE NOTE *[MOD 0008]***

*Note**: This clause becomes applicable when the Offeror/Contractor submits an acceptable request for indemnification and receives approval from the Secretary of Energy.*

(a) "Contractor's principal officials," as used in this clause, means directors, officers, managers, superintendents, or other representatives supervising or directing --

(1) All or substantially all of the Contractor's business;

(2) All or substantially all of the Contractor's operations at any one plant or separate location in which this contract is being performed; or

(3) A separate and complete major industrial operation in connection with the performance of this contract.

(b) Under Public Law 85-804 (50 U.S.C 1431-1435) and Executive Order 10789, as amended, and regardless of any other provisions of this contract, the Government shall, subject to the limitations contained in the other paragraphs of this clause, indemnify the Contractor against --

(1) Claims (including reasonable expenses of litigation or settlement) by third persons (including employees of the Contractor) for death; personal injury; or loss of, damage to, or loss of use of property;

(2) Loss of, damage to, or loss of use of Contractor property, excluding loss of profit; and

(3) Loss of, damage to, or loss of use of Government property, excluding loss of profit.

(c) This indemnification applies only to the extent that the claim, loss, or damage

(1) arises out of or results from a risk defined in this contract as unusually hazardous or nuclear and

(2) is not compensated for by insurance or otherwise.

Any such claim, loss, or damage, to the extent that it is within the deductible amounts of the Contractor's insurance, is not covered under this clause. If insurance coverage or other financial protection in effect on the date the approving official authorizes use of this clause is reduced, the Government's liability under this clause shall not increase as a result.

(d) When the claim, loss, or damage is caused by willful misconduct or lack of good faith on the part of any of the Contractor's principal officials, the Contractor shall not be indemnified for --

(1) Government claims against the Contractor (other than those arising through subrogation); or

(2) Loss or damage affecting the Contractor's property.

(e) With the Contracting Officer's prior written approval, the Contractor may, in any subcontract under this contract, indemnify the subcontractor against any risk defined in this contract as unusually hazardous or nuclear. This indemnification shall provide, between the Contractor and the subcontractor, the same rights and duties, and the same provisions for notice, furnishing of evidence or proof, and Government settlement or defense of claims as this clause provides. The Contracting Officer may also approve indemnification

of subcontractors at any lower tier, under the same terms and conditions. The Government shall indemnify the Contractor against liability to subcontractors incurred under subcontract provisions approved by the Contracting Officer.

(f) The rights and obligations of the parties under this clause shall survive this contract's termination, expiration, or completion. The Government shall make no payment under this clause unless the agency head determines that the amount is just and reasonable. The Government may pay the Contractor or subcontractors, or may directly pay parties to whom the Contractor or subcontractors may be liable.

(g) The Contractor shall --

(1) Promptly notify the Contracting Officer of any claim or action against, or any loss by, the Contractor or any subcontractors that may be reasonably be expected to involve indemnification under this clause;

(2) Immediately furnish to the Government copies of all pertinent papers the Contractor receives;

(3) Furnish evidence or proof of any claim, loss, or damage covered by this clause in the manner and form the Government requires; and

(4) Comply with the Government's directions and execute any authorizations required in connection with settlement or defense of claims or actions.

(h) The Government may direct, control, or assist in settling or defending any claim or action that may involve indemnification under this clause.

(i) The cost of insurance (including self-insurance programs) covering a risk defined in this contract as unusually hazardous or nuclear shall not be reimbursed except to the extent that the Contracting Officer has required or approved this insurance. The Government's obligations under this clause are --

(1) Excepted from the release required under this contract's clause relating to allowable cost; and

(2) Not affected by this contract's *Availability of Funds or Obligation of Funds* clause. *[MOD 0008]*

I-12 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

Federal Acquisition Regulations	*http://farsite.hill.af.mil/vffara.htm* or

	https://www.acquisition.gov/far/index.html
Federal Acquisition Forms	*http://www.gsa.gov/forms/farnumer.htm*
Department of Energy Acquisition Regulations	*http://energy.gov/management/downloads/searchable-electronic-department-energy-acquisition-regulation* or *http://farsite.hill.af.mil/vfdoea.htm*

I-13 FAR 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any *Department of Energy Acquisition Regulation* (48 CFR *Chapter 9*) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

I-14 DEAR 952.250-70 NUCLEAR HAZARDS INDEMNITY AGREEMENT (AUG 2016)
[MOD 0091]

(a) *Authority.* This clause is incorporated into this contract pursuant to the authority contained in subsection 170d. of the Atomic Energy Act of 1954, as amended (hereinafter called the Act.)

(b) *Definitions.* The definitions set out in the Act shall apply to this clause.

(c) *Financial protection.* Except as hereafter permitted or required in writing by DOE, the Contractor will not be required to provide or maintain, and will not provide or maintain at Government expense, any form of financial protection to cover public liability, as described in paragraph (d)(2) below. DOE may, however, at any time require in writing that the Contractor provide and maintain financial protection of such a type and in such amount as DOE shall determine to be appropriate to cover such public liability, provided that the costs of such financial protection are reimbursed to the Contractor by DOE.

(d)

1) *Indemnification.* To the extent that the Contractor and other persons indemnified are not compensated by any financial protection permitted or required by DOE,

DOE will indemnify the Contractor and other persons indemnified against (i) claims for public liability as described in subparagraph (d)(2) of this clause; and (ii) such legal costs of the Contractor and other persons indemnified as are approved by DOE, provided that DOE's liability, including such legal costs, shall not exceed the amount set forth in section 170e.(1)(B) of the Act in the aggregate for each nuclear incident or precautionary evacuation occurring within the United States or $500 million in the aggregate for each nuclear incident occurring outside the United States, irrespective of the number of persons indemnified in connection with this contract.

2) The public liability referred to in subparagraph (d)(1) of this clause is public liability as defined in the Act which (i) arises out of or in connection with the activities under this contract, including transportation; and (ii) arises out of or results from a nuclear incident or precautionary evacuation, as those terms are defined in the Act.

(e)

1) *Waiver of defenses.* In the event of a nuclear incident, as defined in the Act, arising out of nuclear waste activities, as defined in the Act, the Contractor, on behalf of itself and other persons indemnified, agrees to waive any issue or defense as to charitable or governmental immunity.

2) In the event of an extraordinary nuclear occurrence which—

(i) Arises out of, results from, or occurs in the course of the construction, possession, or operation of a production or utilization facility; or

(ii) Arises out of, results from, or occurs in the course of transportation of source material, by-product material, or special nuclear material to or from a production or utilization facility; or

(iii) Arises out of or results from the possession, operation, or use by the Contractor or a subcontractor of a device utilizing special nuclear material or by-product material, during the course of the contract activity; or

(iv) Arises out of, results from, or occurs in the course of nuclear waste activities, the Contractor, on behalf of itself and other persons indemnified, agrees to waive—

(A) Any issue or defense as to the conduct of the claimant (including the conduct of persons through whom the claimant derives its cause of action) or fault of persons indemnified, including, but not limited to—

1) Negligence;

2) Contributory negligence;

3) Assumption of risk; or

4) Unforeseeable intervening causes, whether involving the conduct of a third person or an act of God;

(B) Any issue or defense as to charitable or governmental immunity; and

(C) Any issue or defense based on any statute of limitations, if suit is instituted within 3 years from the date on which the claimant first knew, or reasonably could have known, of his injury or change and the cause thereof. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. The waiver shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified.

(v) The term *extraordinary nuclear occurrence* means an event which DOE has determined to be an extraordinary nuclear occurrence as defined in the Act. A determination of whether or not there has been an extraordinary nuclear occurrence will be made in accordance with the procedures in 10 CFR part 840.

(vi) For the purposes of that determination, *offsite* as that term is used in 10 CFR part 840 means away from "the contract location" which phrase means any DOE facility, installation, or site at which contractual activity under this contract is being carried on, and any contractor-owned or

controlled facility, installation, or site at which the Contractor is engaged in the performance of contractual activity under this contract.

(3) The waivers set forth above—

(i) Shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action;

(ii) Shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified;

(iii) Shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages;

(iv) Shall not apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant;

(v) Shall not apply to injury to a claimant who is employed at the site of and in connection with the activity where the extraordinary nuclear occurrence takes place, if benefits therefor are either payable or required to be provided under any workmen's compensation or occupational disease law;

(vi) Shall not apply to any claim resulting from a nuclear incident occurring outside the United States;

(vii) Shall be effective only with respect to those obligations set forth in this clause and in insurance policies, contracts or other proof of financial protection; and

(viii) Shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under (A) the limit of liability provisions under subsection 170e. of the Act, and (B) the terms of this agreement and the terms of insurance policies, contracts, or other proof of financial protection.

(f) *Notification and litigation of claims.* The Contractor shall give immediate written notice to DOE of any known action or claim filed or made against the Contractor or other person indemnified for public liability as defined in paragraph (d)(2). Except as otherwise directed by DOE, the Contractor shall furnish promptly to DOE, copies of all pertinent papers received by the Contractor or filed with respect to such actions or claims. DOE shall have the right to, and may collaborate with, the Contractor and any other person indemnified in the settlement or defense of any action or claim and shall have the right to (1) require the prior approval of DOE for the payment of any claim that DOE may be required to indemnify hereunder; and (2) appear through the Attorney General on behalf of the Contractor or other person indemnified in any action brought upon any claim that DOE may be required to indemnify hereunder, take charge of such action, and settle or defend any such action. If the settlement or defense of any such action or claim is undertaken by DOE, the Contractor or other person indemnified shall furnish all reasonable assistance in effecting a settlement or asserting a defense.

(g) *Continuity of DOE obligations.* The obligations of DOE under this clause shall not be affected by any failure on the part of the Contractor to fulfill its obligation under this contract and shall be unaffected by the death, disability, or termination of existence of the Contractor, or by the completion, termination or expiration of this contract.

(h) *Effect of other clauses.* The provisions of this clause shall not be limited in any way by, and shall be interpreted without reference to, any other clause of this contract, including the clause entitled Contract Disputes, provided, however, that this clause shall be subject to the clauses entitled Covenant Against Contingent Fees, and Accounts, records, and inspection, and any provisions that are later added to this contract as required by applicable Federal law, including statutes, executive orders and regulations, to be included in Nuclear Hazards Indemnity Agreements.

(i) *Civil penalties.* The Contractor and its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to civil penalties, pursuant to 234A of the Act, for violations of applicable DOE nuclear-safety related rules, regulations, or orders.

(j) *Criminal penalties.* Any individual director, officer, or employee of the Contractor or of its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to criminal penalties, pursuant to 223(c) of the Act, for knowing and willful violation of the Atomic Energy Act of 1954, as amended, and applicable DOE nuclear safety-related rules, regulations or orders which violation results in, or, if undetected, would have resulted in a nuclear incident.

(k) *Inclusion in subcontracts.* The Contractor shall insert this clause in any subcontract which may involve the risk of public liability, as that term is defined in the Act and further described in paragraph (d)(2above. However, this clause shall not be included in subcontracts in which the subcontractor is subject to Nuclear Regulatory Commission

(NRC) financial protection requirements under section 170b. of the Act or NRC agreements of indemnification under section 170c. or k. of the Act for the activities under the subcontract.

(End of clause)

I-15 DEAR 970.5203-3 CONTRACTOR'S ORGANIZATION (DEC 2000) (DEVIATION)

(a) Organization chart. As promptly as possible after the execution of this contract, the Contractor shall furnish to the Contracting Officer *(1)* a chart showing the names, duties, and organization of key personnel (see 48 CFR 952.215-70) to be employed in connection with the work, and shall furnish supplemental information to reflect any changes as they occur*; and, (2) a chart showing the name and organization of the Contractor's Parent Organization's responsible official for administering the Contractor's Parent Organization's Oversight Plan, and shall furnish supplemental information to reflect any changes as they occur.*

(b) Supervisory representative of Contractor. Unless otherwise directed by the Contracting Officer, a competent full-time resident supervisory representative of the Contractor satisfactory to the Contracting Officer shall be in charge of the work at the site, and any work off-site, at all times. *For purposes of this contract, the [insert name or title of resident supervisory representative of the contractor] is the resident supervisory representative of the contractor.*

(c) Control of employees. The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary. In the event the Contractor fails to remove any employee from the contract work whom DOE deems incompetent, careless, or insubordinate, or whose continued employment on the work is deemed by DOE to be inimical to the Department's mission, the Contracting Officer may require, with the approval of *the Administrator of the NNSA or* the Secretary of Energy, the Contractor to remove the employee from work under the contract. This includes the right to direct the Contractor to remove its most senior key person from work under the contract for serious contract performance deficiencies. *Furthermore, nothing contained in this paragraph (c) shall in any way impair the statutory or contractual collective bargaining rights of union-represented contractor employees.*

(d) Standards and procedures. The Contractor shall establish such standards and procedures as are necessary to implement the requirements set forth in 48 CFR 970.0371. Such standards and procedures shall be subject to the approval of the Contracting Officer.

(e) *Nothing in this clause or its implementation is intended to conflict with 42 U.S.C. §7274p, or to otherwise affect the scientific integrity of persons required to provide independent technical judgments to provide the President or the Congress assurances on the safety, security, reliability, or effectiveness of the US nuclear weapons stockpile.*

I-16 DEAR 970.5204-2 LAWS, REGULATIONS, AND DOE DIRECTIVES (DEC 2000) (DEVIATION)

(a) In performing work under this contract, the Contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.

(b) In performing work under this contract, the Contractor shall comply with the requirements of those Department of Energy directives, or parts thereof, *and National Nuclear Security Administration Policy Letters* identified in the *contract's Section J Appendix entitled* "List of Applicable Directives" *(the List)*. Except as otherwise provided for in paragraph (d) of this clause, the Contracting Officer may, from time to time and at any time, revise *the* List by unilateral modification to the contract to add, modify, or delete specific requirements. Prior to revising *the* List, the Contracting Officer shall notify the Contractor in writing of the Department's intent to revise *the* List and provide the Contractor with the opportunity to assess the effect of the Contractor's compliance with the revised list on contract cost and funding, technical performance, and schedule; and identify any potential inconsistencies between the revised list and the other terms and conditions of the contract. Within 30 days after receipt of the Contracting Officer's notice, the Contractor shall advise the Contracting Officer in writing of the potential impact of the Contractor's compliance with the revised list. Based on the information provided by the Contractor and any other information available, the Contracting Officer shall decide whether to revise *the* List and so advise the Contractor not later than 30 days prior to the effective date of the revision of *the* List. The Contractor and the Contracting Officer shall identify and, if appropriate, agree to any changes to other contract terms and conditions, including cost and schedule, associated with the revision of *the* List *and fee may be adjusted* pursuant to the clause of this contract entitled, "Changes."

(c) Environmental, safety, and health (ES&H) requirements appropriate for work conducted under this contract may be determined by a DOE approved process to evaluate the work and the associated hazards and identify an appropriately tailored set of standards, practices, and controls, such as a tailoring process included in a DOE approved Safety Management System implemented under the clause entitled "Integration of Environment, Safety, and Health into Work Planning and Execution." When such a process is used, the set of tailored (ES&H) requirements, as approved by DOE pursuant to the process, shall be incorporated into *the* List as contract requirements with full force and effect. These requirements shall supersede, in whole or in part, the contractual environmental, safety, and health requirements previously made applicable to the contract by *the* List. If the tailored set of requirements identifies an alternative requirement varying from an ES&H requirement of an applicable law or regulation, the Contractor shall request an exemption or other appropriate regulatory relief specified in the regulation.

(d) Except as otherwise directed by the Contracting Officer, the Contractor shall procure all necessary permits or licenses required for the performance of work under this contract.

(e) Regardless of the performer of the work, the Contractor is responsible for compliance with the requirements of this clause. The Contractor is responsible for flowing down the

requirements of this clause to subcontracts at any tier to the extent necessary to ensure the Contractor's compliance with the requirements.

I-17 DEAR 970.5215-1 [REMOVED AND RESERVED] (DEVIATION)

I-18 DEAR 970.5215-3 CONDITIONAL PAYMENT OF FEE, PROFIT, AND OTHER INCENTIVES—FACILITY MANAGEMENT CONTRACTS (AUG 2019) (NNSA CLASS DEVIATION) ***[MOD 0181]***

(a) Definition of Earned Fee.

For the purposes of this clause, "Earned Fee" means the sum total of all incentive fees, award fees, fixed fees, and share of cost savings earned by the contractor during a performance evaluation period, as determined by the contracting officer or fee determining official (as appropriate). In the NNSA, the Fee Determining Official (FDO) is the Administrator, unless otherwise delegated. Where the contract provides for financial incentives that extend beyond a single performance evaluation period, this amount shall also include: any provisional amounts determined otherwise payable in the evaluation period; and, if provisional payments are not provided for, the allocable amount of any incentive determined otherwise payable at the conclusion of a subsequent performance evaluation period. The allocable amount shall be the total amount of the Earned Fee divided by the number of evaluation periods over which it was earned.

(b) General.

ES&H means "Environment, safety and health." The purpose of accident investigations is to identify and understand causes so deficiencies can be addressed and corrected. This, in turn, is intended to promote improved environmental protections, safety, and health of DOE employees, contractors, and the general public. Facility management contracts are management and operating (M&O) contracts, as defined at 48 CFR subpart 17.6.

(1) The payment of any Earned Fee under this contract is dependent upon—

(i) The Contractor's or Contractor employees' compliance with the terms and conditions of this contract relating to environment, safety and health (ES&H), including performance under an approved Safety Management System (SMS); and

(ii) The Contractor's or Contractor employees' compliance with the terms and conditions of this contract relating to the safeguarding of Restricted Data and other classified information.

(2) If the contractor does not meet the performance requirements or terms and conditions of this contract relating to ES&H or related to safeguarding of Restricted Data and other classified information during any performance evaluation period, the contracting officer may unilaterally reduce Earned Fee.

(3) The ES&H performance requirements of this contract are set forth in its ES&H terms and conditions, including the DOE approved contractor SMS or similar

document. Financial incentives for timely mission accomplishment or cost effectiveness shall never compromise or impede full and effective implementation of the SMS and full ES&H compliance.

(4) The performance requirements of this contract are related to the safeguarding of Restricted Data and other classified information as set forth in the clauses of this contract, entitled DEAR 952.204-2 SECURITY (AUG 2016), "SECURITY," or its successor, and DEAR 970.5204-2 (DEC 2000) (CLASS DEVIATION), *"Laws, Regulations, and DOE Directives,"* or its successor, as well as in other terms and conditions.

(c) Reduction amount.

(1) The amount of Earned Fee that may be unilaterally reduced is correlated to the severity of the performance failure.

(i) Level 1 performance failure: not less than 26% nor greater than 100%;

(ii) Level 2 performance failure: not less than 11% nor greater than 25%; and

(iii) Level 3 performance failure: not greater than 10%.

(d) *Mitigating Factors.*

(1) In determining the amount of the reduction and the applicability of mitigating factors, the contracting officer must consider the Contractor's overall performance in meeting the ES&H or security requirements of the contract. Such consideration must include performance against any site-specific performance criteria/requirements that provide additional definition, guidance for the amount of reduction, or guidance for the applicability of mitigating factors. In all cases, the contracting officer must consider mitigating factors that may warrant a reduction below the applicable range.

(2) The mitigating factors include, but are not limited to, the following:

(i) Degree of control the Contractor had over the event or incident.

(ii) Efforts the Contractor had made to anticipate and mitigate the possibility of the event in advance.

(iii) Contractor self-identification and response to the event to mitigate impacts and recurrence.

(iv) General status (trend and absolute performance) of: ES&H and compliance in related areas; or of safeguarding Restricted Data and other classified information and compliance in related areas.

(v) Contractor demonstration to the Contracting Officer's satisfaction that the principles of industrial ES&H standards are routinely practiced (e.g., Voluntary Protection Program, ISO 14000).

(vi) Event caused by "Good Samaritan" act by the Contractor (e.g., offsite emergency response).

(vii) Contractor demonstration that a performance measurement system is routinely used to improve and maintain ES&H performance (including effective resource allocation) and to support DOE corporate decision-making (e.g., policy, ES&H programs).

(viii) Contractor demonstration that an Operating Experience and Feedback Program is functioning that demonstrably affects continuous improvement in ES&H by use of lessons-learned and best practices inter- and intra-DOE sites.

(e) *Effect of Reduction.*

(1) The Government will effect Earned Fee reductions as soon as practical. If the effective date of the reduction falls after the completion of the fee determination for the evaluation period during which the performance failure occurred, the Government will effect the reduction during a subsequent evaluation period, by issuing a demand for payment or by reducing any Earned Fee, at the contracting officer's sole discretion. If the performance failure occurs during the last evaluation period before termination or completion of the contract, reduction will be effected as soon as practical during contract close-out.

(2) The amount of reduction under this clause, in combination with any reduction made under any other clause in the contract, shall not exceed the amount of Earned Fee.

(f) Environment, Safety and Health (ES&H). Performance failures occur if the Contractor does not comply with the contract's ES&H requirements, standards, terms or conditions (including the DOE/NNSA approved Contractor SMS). The levels of performance failure under which reductions of earned fee are:

(1) *Level 1:* Performance failures that are most adverse to ES&H. Examples of Level 1 performance failures include, but are not limited to:

(i) Failure to develop and maintain required DOE/NNSA approval of an SMS;

(ii) Any action/event that is considered an "Accident" for which an Accident Investigation Board (AIB) is appointed pursuant to DOE Order 225.1B, Accident Investigations, or its successor. Accidents also include those investigated by Joint Accident Investigation

Boards (JAIB), in which federal and M&O staff members team up to investigate the incident;

(iii) A combination of two, Level 2 performance failures that are significantly adverse to ES&H occurring during the same evaluation period; and

(iv) Contractor actions that result in a breakdown of the SMS that resulted in great harm to the environmental, safety and health of the general public.

(2) *Level 2:* Performance failures that are significantly adverse to ES&H. Examples of Level 2 performance failures include, but are not limited to:

(i) Any action/event that nearly results in an "Accident" for which an AIB is appointed pursuant to DOE Order 225.1B, Accident Investigations, or its successor;

(ii) A failure to comply with an approved SMS that results in injury, exposure, or exceedance;

(iii) Failure to notify DOE/NNSA (e.g., NNSA Field Office Manager or other authorized official) of an imminent danger situation after discovery, where such notification is a requirement of the contract;

(iv) Failure to mitigate a dangerous situation that could cause an Accident; and

(v) Contractor actions that result in a breakdown of the SMS that resulted in serious harm to the environmental, safety and health of the general public.

(3) *Level 3:* Performance failures that reflect a lack of focus on maintaining or improving ES&H. Examples of Level 3 performance failures include, but are not limited to:

(i) Failure to implement effective corrective actions to address deficiencies/noncompliances documented through: external or internal oversight (e.g., reported per DOE Order 231.1B, Environment, Safety and Health Reporting, or its successor, requirements; DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information, or its successor);

(ii) Multiple similar non-compliances identified with ES&H by external oversight that in aggregate indicate a significant programmatic breakdown;

(iii) Non-compliance with ES&H requirements, standards, terms or conditions that either have, or may have, significant negative

impacts to the worker, the public, or the environment or that indicate a significant programmatic breakdown;

(iv) Failure to notify DOE/NNSA, as appropriate, upon discovery of events or conditions where notification is required by the terms and conditions of the contract; and

(v) Contractor actions that result in a breakdown of the SMS that resulted in harm to the environmental, safety and health of the general public.

(g) *Safeguarding Restricted Data and/or Other Classified Information.* Performance failures occur if the Contractor does not comply with the terms and conditions of this contract relating to the safeguarding of Restricted Data and/or other classified information. The levels of performance failure under which reductions of Earned Fee will be determined as follows:

(1) *Level 1:* Performance failure to comply with applicable law, DOE regulation, or directive, that has resulted in, or that can reasonably be expected to result in, exceptionally grave damage to the national security. Examples of Level 1 performance failures include, but are not limited to:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating a risk of, loss, compromise, or unauthorized disclosure of: Top Secret Restricted Data or other information classified as Top Secret, any information in a Special Access Program (SAP) (regardless of classification level), information identified as sensitive compartmented information (SCI), or high-risk nuclear weapons-related data;

(ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of: Top Secret Restricted Data, or other information classified as Top Secret, any information in a SAP (regardless of classification level), information identified as SCI, or high-risk nuclear weapons-related data;

(iii) Failure to promptly report the loss, compromise, or unauthorized disclosure of: Top Secret Restricted Data, or other information classified as Top Secret, any information in a SAP (regardless of classification level), information identified as SCI, or high-risk nuclear weapons-related data; and

(iv) Failure to timely implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of: Top Secret Restricted Data or other information classified as Top Secret, any information in a SAP (regardless of classification level),

information identified as SCI, or high-risk nuclear weapons-related data.

(2) *Level 2:* Performance failure to comply with applicable law, DOE regulation, or directive, that has resulted in, or that can reasonably be expected to result in, serious damage to the national security. Examples of Level 2 performance failures include, but are not limited to:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss, compromise, or unauthorized disclosure of Secret Restricted Data or other information classified as Secret;

(ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of Secret Restricted Data, or other information classified as Secret;

(iii) Failure to promptly report the loss, compromise, or unauthorized disclosure of Restricted Data or other classified information regardless of classification (except for information covered by paragraph (g)(1)(iii) of this clause); and

(iv) Failure to timely implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of Secret Restricted Data or other classified information classified as Secret.

(3) *Level 3:* Performance failure that has been determined, in accordance with applicable law, regulation, or DOE directive, to have actually resulted in, or that can reasonably be expected to result in, undue risk to the common defense and security. In addition, this category includes performance failures that result from a lack of Contractor management and/or employee attention to the proper safeguarding of Restricted Data and other classified information. These performance failures may be indicators of future, more severe performance failures and/or conditions, and if identified and corrected early would prevent serious incidents. Examples of Level 3 performance failures include, but are not limited to:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss, compromise, or unauthorized disclosure of Restricted Data or other information classified as Confidential;

(ii) Failure to promptly report alleged or suspected violations of laws, regulations, or directives pertaining to the safeguarding of Restricted Data or other classified information;

(iii) Failure to identify or timely execute corrective actions to mitigate or eliminate identified vulnerabilities and reduce residual risk relating to the protection of Restricted Data or other classified information in accordance with the Contractor's Safeguards and Security Plan or other security plan, as applicable;

(iv) Contractor actions that result in performance failures which unto themselves pose minor risk, but when viewed in the aggregate indicate degradation in the integrity of the Contractor's safeguards and security management system relating to the protection of Restricted Data and other classified information; and

(v) Contractor actions that result in a breakdown of the safeguards and security management system that resulted in the loss, compromise, or unauthorized disclosure of Secret Restricted Data, or other information classified as Secret.

(End of Clause)

I-19 DEAR 970.5215-4 COST REDUCTION (DEVIATION NOV 2011) *[MOD 0121]*

(a) General. It is the Department of Energy's (DOE)/National Nuclear Security Administration's (NNSA) intent to have its facilities and laboratories operated in an efficient and effective manner where improvement to process is emphasized in an on-going manner. To this end, the Contractor shall assess its operations and identify areas where cost reductions would bring cost efficiency to operations without adversely affecting the level of performance required by the contract.

The Merger Transformation Plan (MTP) described in Section F, F-7(e), includes the Timeline of Projected Cost Savings. The Timeline of Projected Cost Savings will be the basis for the Cost Reduction Proposal (hereinafter referred to as the CRP) for the term of this Contract, and be subject to the requirements of this Clause. There is one CRP for all cost reductions under this Contract. The table below describes the relationship between the Approach, the Timeline, the MTP, the process and procedures, and the CRP.

Cost Reduction Process		
Steps	**Items**	**Details**
Step 1	Proposal: Approach and Timeline of Projected Cost Savings	Provided as part of the Contractor's proposal
Step 2	Develop and submit MTP	High level includes approach and cost savings profile, due within 60 days (see F-7(e)).
Step 3	Develop process and procedures for CRP	Will occur during transition term in accordance with this Clause.
Step 4	Develop and submit CRP	Due in accordance with process and procedures (see Step 3).

Step 5	Modify CRP	Throughout period of performance in accordance with process and procedures agreed upon in Step 3.

(b) Definitions.

Administrative cost is the Contractor cost of developing the CRP.

Development cost is the Contractor cost of up-front planning, engineering, prototyping, and testing of a design, process, or method.

DOE/NNSA cost is the Government cost agreed to under the CRP as part of implementation.

Implementation cost is the Contractor cost such as tooling, facilities, documentation, products, etc., required to effect a design, process, or method change once it has been tested and approved, as well as relocation, training, severance, and any other costs that are required to effect the merger or continuous improvement activities. The Government will consider the allowability of implementation costs necessary to execute a CRP. The Government makes no commitment to fund implementation costs but will consider those within budget on the merits of the savings proposed. The Government's failure to provide funding for implementation will not entitle the Contractor to an equitable adjustment to proposed savings.

Hard savings means savings that directly reduce the overall cost of operations. Examples of hard savings include:

i) Permanently eliminating or reducing recurring costs through innovative product designs, or process improvements including through merger activities;

ii) Supply chain management activities resulting in actual savings (as opposed to potential or sourcing savings);

iii) Integration of life cycle approaches for the design and development of systems that minimize costs (e.g. experimental, maintenance and operations);

iv) Reducing direct or indirect material or labor costs;

v) Reducing inventory levels of product or material, or reducing the cost of carrying the same levels;

vi) Reducing utility or natural resource consumptions; or

vii) Reducing or eliminating scrap material costs.

Net savings means the difference between hard savings and execution costs. Execution costs can include administrative costs, development costs, DOE/NNSA costs, and implementation costs associated with the CRP.

Soft Savings means:

i) savings that cannot be demonstrated to reduce the bottom line operating costs including, for example, labor efficiency improvements that increase productivity but do not reduce total hours worked;

ii) savings that are intangible and consequently difficult to measure, for example, a wellness plan that is intended to reduce absenteeism, turnover or insurance costs; or

iii) cost avoidances that cannot be demonstrated to lower cost of products/services based on a comparison against baseline, for example, slowing the rate of a cost increase.

(c) Consideration of Hard Savings. Proposed savings that will not be considered creditable by the Contracting Officer will include:

(1) Savings resulting from formal or informal NNSA direction or changes in mission, work scope (including Work for Others growth), or routine Contractor adjustments due to budget changes;

(2) Underruns resulting from anything other than a Contractor efficiency improvement, including but not limited to additional NNSA funding, shifting of work scope to a future fiscal year, (e.g. moving upgrade to facilities or infrastructure to out years with no evidence of savings or computer buys that are routinely purchased on a 3 year basis are deferred for an additional two years) deferred maintenance, re-categorizing direct/indirect costs, or increases in the direct allocation bases;

(3) Site office initiatives, direction, work scope changes, mission changes, or reorganization, unless the Contractor can demonstrate a significant role in achieving savings resulting from the site office actions;

(4) Savings that have a negative impact on any existing Contract requirements such as scope, safety, or security;

(5) Savings resulting from shifting the employer paid portion of employee benefits costs to employees beyond current industry trends;

(6) Soft savings; and

(7) Savings that have been credited elsewhere under this contract.

(d) Process, procedures and requirements for CRP. Process and procedures, including modifications and disputes, for management of the CRP will be established by the Contracting Officer with Contractor input during the transition term with a goal for timely approval and validation of savings. The process and procedures will contain a change control process for the CRP.

The Contractor shall utilize an annual controlled baseline for all Contractor support costs and programs. CRP submitted by the Contractor shall contain, at a minimum, the following:

(1) Current Baseline-A verifiable description of the current scope of work, cost, and schedule to be affected by the CRP, and supporting documentation.

(2) Proposed Baseline-A verifiable description of the new scope of work, cost, and schedule, how the CRP will be accomplished and supporting documentation.

(3) Feasibility Assessment-A description and evaluation of the proposed initiative and benefits, risks, and impacts of implementation. This evaluation shall include an assessment of the difference between the current baseline and proposed baseline including all related costs.

Contractor institutional cost reporting and program cost data is a tool that will be used to measure savings in cost and associated resources. Cost data must be compatible with, and in a format, required by Section J, Appendix O, Program Management and Cost Reports.

(e) Evaluation and Decision. The CRP must be submitted to the Contracting Officer and those with proposed cost reductions above an agreed-upon dollar-threshold will require pre-approval by the Contracting Officer. NNSA encourages the Contractor to perform work consistent with commercial and industry best practices. For NNSA to accept and support the Contractor's successful implementation of the CRP there should be a discussion included in the information provided by the CRP to the extent the proposed cost reduction effort may—

(1) Pose a risk to the mission, security, health and safety of workers, the community, and the environment;

(2) Require a waiver or deviation from DOE requirements, such as DOE Orders and joint oversight agreements;

(3) Require a change in other contractual agreements;

(4) Result in significant organizational or personnel impacts;

(5) Create a negative impact on the cost, schedule, or scope of work in another area;

(6) Pose a potential negative impact on the credibility of the Contractor or the DOE;

(7) Impact successful and timely completion of any of the work in the cost, technical, and schedule baseline; and

(8) Significantly impact internal controls.

(f) Acceptance or Rejection of the CRP. Acceptance or rejection of the CRP, or modification thereto, is a determination made by the Contracting Officer based on but not limited to the evaluation criteria established in paragraph (c) and (e). The failure of the Contracting Officer to notify the Contractor of the acceptance or rejection of the CRP, or any modification, shall not be construed as approval.

(g) Sharing Arrangement. If the CRP is accepted, the Contractor may share in the shared net savings. The sharing arrangement shall be as follows:

(1) For savings proposed in conjunction with the Merger Transformation Plan, the sharing arrangement shall be as follows:

(i) 50 / 35 %* of the net savings shall be the Government's share in savings,

(ii) 0 / 35 %* of the net savings shall be share in savings fee payable to the Contractor,

(iii) As negotiated in the approved CRP, 50 /30 %* of the shared savings shall remain under this Contract for the following contract activities consistent with the other terms and conditions of this contract:

(A) Implementation cost for future cost savings initiatives.

(B) Program, project, or indirect cost activities to finance additional mission work that has been approved by the HQ office;

(C) Projects that serve the M&O site as a whole, such as a parking structure, an office building or building a cafeteria that doesn't serve a discrete program and could be built with institutional general plant project funds;

(D) Employee compensation for non-key personnel in accordance with Appendix I. For the purposes of this clause, "employee compensation" means a one–time non-base lump sum payment which does not count towards the employee's pensionable earnings.

(iv) The savings period will be 2 years.

*The first number is the percentage that applies to benefit savings and second number is the percentage that applies to all other savings.

(2) Modifications to the CRP that increase the savings will include the specific percentage and sharing period, which will be negotiated and set forth in the approved CRP. Share in savings > 40% and/or a share period > 2 years will be considered and may be approved by the Contracting Officer if it is advantageous to the Government (e.g., because it results in greater savings).

(h) Validation of Net Savings. The Contractor shall certify the amount of savings achieved and sustained from previous period(s) under the sharing arrangement identified in (g). Fee will be paid after Contracting Officer validation from the annual or semi-annual period achieving sustainment through the remainder of the sharing period. An external, third-party validation may be utilized by the Contracting Officer. The validation recommendations provided by the third-party would be advisory in nature to both the Contractor and NNSA. The Government's validation of cost savings will ensure NNSA mission deliverables (quality or timeliness) were not negatively impacted.

(i) Relationship to Other Incentives. Only those benefits of an accepted CRP not awardable under other clauses of this contract shall be considered under this clause.

(j) Subcontracts. The Contractor may include a clause similar to this clause in any subcontract. In calculating any estimated shared net savings in the CRP under this contract, the Contractor's administration, development, and implementation costs shall include any subcontractor's allowable costs, and any CRP incentive payments to a subcontractor resulting from the acceptance of such CRP. The Contractor may choose any arrangement for subcontractor CRP incentive payments, provided that the payments not reduce the DOE's share of shared net savings.

I-20 DEAR 970.5227-2 RIGHTS IN DATA-TECHNOLOGY TRANSFER (DEC 2000) ALTERNATE I (DEC 2000) (NNSA CLASS DEVIATION OCT 2011)

(a) Definitions.

(1) Computer data bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

(2) Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer program to be produced, created, or compiled. The term does not include computer data bases.

(3) Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term "data" does not include data incidental to the administration of this contract, such as financial, administrative, cost and pricing, or management information.

(4) Limited rights data, as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of paragraph (*h*) of this clause.

(5) Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of subparagraph (*i*) of this clause.

(6) Technical data, as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

(7) Unlimited rights, as used in this clause, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.

(8) *Open Source Software, as used in this clause, means computer software that is distributed under a license in which the user is granted the right to use, copy, modify, prepare derivative works and distribute, in source code or other format, the software, in original or modified form and derivative works thereof, without having to make royalty payments. The Contractor's right to distribute computer software first produced in the performance of this Contract as Open Source Software is as set forth in paragraph (f).*

(9) *Patent Counsel means the National Nuclear Security Administration (NNSA) Patent Counsel assisting the DOE/NNSA contracting activity.*

(b) Allocation of Rights.

(1) *Except as may otherwise expressly provided or directed in writing by the Patent Counsel* the Government shall have:

(i) Ownership of all technical data and computer software first produced in the performance of this Contract;

(ii) Unlimited rights in technical data and computer software specifically used in the performance of this Contract, except as provided herein regarding copyright, limited rights data, or restricted computer software, and except for data subject to the withholding provisions for protected Cooperative Research and Development Agreement (CRADA) information in accordance with Technology Transfer actions under this Contract, or other data specifically protected by statute for a period of time or, where, approved by DOE*/NNSA*, appropriate instances of the DOE */NNSA* Work for Others Program;

(iii) The right to inspect technical data and computer software first produced or specifically used in the performance of this Contract at all reasonable times. The Contractor shall make available all necessary facilities to allow DOE*/NNSA* personnel to perform such inspection;

(iv) The right to have all technical data and computer software first produced or specifically used in the performance of this Contract delivered to the Government or otherwise disposed of by the Contractor, either as the contracting officer may from time to time direct during the progress of the

work or in any event as the contracting officer shall direct upon completion or termination of this Contract. The Contractor agrees to leave a copy of such data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the contracting officer. If such data are limited rights data or restricted computer software. the rights of the Government in such data shall be governed solely by the provisions of paragraph (*h*) of this clause ("Rights in Limited Rights Data") or paragraph (*i*) of this clause ("Rights in Restricted Computer Software"); and

(v) The right to remove, cancel, correct, or ignore any markings not authorized by the terms of this Contract on any data furnished hereunder if, in response to a written inquiry by DOE*/NNSA* concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE*/NNSA* will notify the Contractor of the action taken.

(2) The Contractor shall have:

(i) The right to withhold limited rights data and restricted computer software unless otherwise provided in provisions of this clause;

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this Contract, data it first produces in the performance of this Contract, except for data in DOE's Uranium Enrichment Technology, including diffusion, centrifuge, and atomic vapor laser isotope separation and except Restricted Data in category C-24, 10 CFR part 725, in which DOE has reserved the right to receive reasonable compensation for the use of its inventions and discoveries, including related data and technology, provided the data requirements of this Contract have been met as of the date of the private use of such data; and

(iii) The right to assert copyright subsisting in scientific and technical articles as provided in paragraph (d) of this clause and the right to request permission to assert copyright subsisting in works other than scientific and technical articles as provided in paragraph (e) of this clause.

(3) The Contractor agrees that for limited rights data or restricted computer software or other technical business or financial data in the form of recorded information which it receives from, or is given access to by DOE*, NNSA* or a third party, including a DOE *or NNSA* contractor or subcontractor, and for technical data or computer software it first produces under this Contract which is authorized to be marked by DOE*/NNSA*, the Contractor shall treat such data in accordance with any restrictive legend contained thereon.

(c) Copyright (General).

(1) The Contractor agrees not to mark, register, or otherwise assert copyright in any data in a published or unpublished work, other than as set forth in paragraphs (d) and (e) of this clause.

(2) Except for material to which the Contractor has obtained the right to assert copyright in accordance with either paragraph (d) or (e) of this clause, the Contractor agrees not to include in the data delivered under this Contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph (d) of this clause. If the Contractor believes that such copyrighted material for which the license cannot be obtained must be included in the data to be delivered, rather than merely incorporated therein by reference, the Contractor shall obtain the written authorization of the contracting officer to include such material in the data prior to its delivery.

(d) Copyrighted works (scientific and technical articles)

(1) The Contractor shall have the right to assert, without prior approval of the contracting officer, copyright subsisting in scientific and technical articles composed under this contract or based on or containing data first produced in the performance of this Contract, and published in academic, technical or professional journals, symposia, proceedings, or similar works. When assertion of copyright is made, the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) on the data when such data are delivered to the Government as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. The Contractor grants to the Government, and others acting on its behalf, a nonexclusive, paid-up, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government.

(2) The contractor shall mark each scientific or technical article first produced or composed under this Contract and submitted for journal publication or similar means of dissemination with a notice, similar in all material respects to the following, on the front reflecting the Government's non-exclusive, paid-up, irrevocable, world-wide license in the copyright.

Notice

This manuscript has been authored by [insert the name of the Contractor] under Contract No. [insert the contract number] with the U.S. Department of Energy*/National Nuclear Security Administration*. The United States Government retains and the publisher, by accepting the article for publication, acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this manuscript, or allow others to do so, for United States Government purposes.

(End of Notice)

(3) The title to the copyright of the original of unclassified graduate theses and the original of related unclassified scientific papers shall vest in the author thereof, subject to the right of DOE *and NNSA* to retain duplicates of such documents and to use such documents for any purpose whatsoever without any claim on the part of the author or the contractor for additional compensation.

(e) Copyrighted works (other than scientific and technical articles and data produced under a CRADA). The Contractor may obtain permission to assert copyright subsisting in technical data and computer software first produced by the Contractor in performance of this Contract, where the Contractor can show that commercialization would be enhanced by such copyright protection, subject to the following:

(1) Contractor Request to Assert Copyright.

(i) For data other than scientific and technical articles and data produced under a CRADA, the Contractor shall submit in writing to Patent Counsel its request to assert copyright in data first produced in the performance of this Contract pursuant to this clause. The right of the Contractor to copyright data first produced under a CRADA is as described in the individual CRADA. Each request by the Contractor must include:

(A) The identity of the data (including any computer program) for which the Contractor requests permission to assert copyright, as well as an abstract which is descriptive of the data and is suitable for dissemination purposes,

(B) The program under which it was funded,

(C) Whether, to the best knowledge of the Contractor, the data is subject to an international treaty or agreement,

(D) Whether the data is subject to export control,

(E) A statement that the Contractor plans to commercialize the data in compliance with the clause of this contract entitled, "Technology Transfer Mission," within five (5) years after obtaining permission to assert copyright or, on a case-by-case basis, a specified longer period where the Contractor can demonstrate that the ability to commercialize effectively is dependent upon such longer period, and

(F) For data other than computer software, a statement explaining why the assertion of copyright is necessary to enhance commercialization and is consistent with DOE's and NNSA's dissemination responsibilities.

(ii) For data that is developed using other funding sources in addition to DOE *or NNSA* funding, the permission to assert copyright in accordance with this

clause must also be obtained by the Contractor from all other funding sources prior to the Contractor's request to Patent Counsel. The request shall include the Contractor's certification or other documentation acceptable to Patent Counsel demonstrating such permission has been obtained.

(iii) Permission for the Contractor to assert copyright in excepted categories of data as determined by DOE/*NNSA* will be expressly withheld. Such excepted categories include data whose release

(A) would be detrimental to national security, i.e., involve classified information or data or sensitive information under Section 148 of the Atomic Energy Act of 1954, as amended, or are subject to export control for nonproliferation and other nuclear-related national security purposes,

(B) would not enhance the appropriate transfer or dissemination and commercialization of such data,

(C) would have a negative impact on U.S. industrial competitiveness,

(D) would prevent DOE *or NNSA* from meeting its obligations under treaties and international agreements, or

(E) would be detrimental to one or more of DOE's *or NNSA's* programs. Additional excepted categories may be added by the Assistant General Counsel for Technology Transfer and Intellectual Property *and/or the NNSA Patent Counsel*. Where data are determined to be under export control restriction, the Contractor may obtain permission to assert copyright subject to the provisions of this clause for purposes of limited commercialization in a manner that complies with export control statutes and applicable regulations. In addition, notwithstanding any other provision of this Contract, all data developed with Naval Reactors' funding and those data that are classified fall within excepted categories. The rights of the Contractor in data are subject to the disposition of data rights in the treaties and international agreements identified under this Contract as well as those additional treaties and international agreements which DOE *or NNSA* may from time to time identify by unilateral amendment to the Contract; such amendment listing added treaties and international agreements is effective only for data which is developed after the date such treaty or international agreement is added to this Contract. Also, the Contractor will not be permitted to assert copyright in data in the form of various technical reports generated by the Contractor under the Contract without first obtaining the advanced written permission of the contracting officer.

(2) DOE/*NNSA* Review and Response to Contractor's Request. The Patent Counsel shall use its best efforts to respond in writing within 90 days of receipt of a complete request by the Contractor to assert copyright in technical data and computer software

pursuant to this clause. Such response shall either give or withhold DOE/*NNSA*'s permission for the Contractor to assert copyright or advise the Contractor that DOE/*NNSA* needs additional time to respond, and the reasons therefor.

(3) Permission for Contractor to Assert Copyright.

(i) For computer software, the Contractor shall furnish to the DOE designated, centralized software distribution and control point, the Energy Science and Technology Software Center, at the time permission to assert copyright is given under paragraph (e)(2) of this clause:

(A) An abstract describing the software suitable for publication,

(B) the source code for each software program, and

(C) the object code and at least the minimum support documentation needed by a technically competent user to understand and use the software.

The Patent Counsel, for good cause shown by the Contractor, may allow the minimum support documentation to be delivered within 60 days after permission to assert copyright is given or at such time the minimum support documentation becomes available. The Contractor acknowledges that the DOE/*NNSA* designated software distribution and control point may provide a technical description of the software in an announcement identifying its availability from the copyright holder.

(ii) Unless otherwise directed by the contracting officer, for data other than computer software to which the Contractor has received permission to assert copyright under paragraph (e)(2) of this clause above, the Contractor shall within sixty (60) days of obtaining such permission furnish to DOE's Office of Scientific and Technical Information (OSTI) a copy of such data as well as an abstract of the data suitable for dissemination purposes. The Contractor acknowledges that OSTI may provide an abstract of the data in an announcement to DOE, *NNSA,* its contractors and to the public identifying its availability from the copyright holder.

(iii) For a five year period or such other specified period as specifically approved by Patent Counsel beginning on the date the Contractor is given permission to assert copyright in data, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works and perform publicly and display publicly, by or on behalf of the Government. Upon request, the initial period may be extended after DOE/*NNSA* approval. The DOE/*NNSA* approval will be based on the standard that the work is still commercially available and the market demand is being met.

(iv) After the period approved by Patent Counsel for application of the limited Government license described in paragraph (e)(3)(iii) of this clause, or if,

prior to the end of such period(s), the Contractor abandons commercialization activities pertaining to the data to which the Contractor has been given permission to assert copyright, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, distribute copies to the public, prepare derivative works, perform publicly and display publicly, and to permit others to do so.

(v) Whenever the Contractor asserts copyright in data pursuant to this paragraph (e), the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 on the copyrighted data and also an acknowledgment of the Government sponsorship and license rights of paragraphs (e)(3) (iii) and (iv) of this clause. Such action shall be taken when the data are delivered to the Government, published, licensed or deposited for registration as a published work in the U.S. Copyright Office. The acknowledgment of Government sponsorship and license rights shall be as follows:

Notice

These data were produced by (insert name of Contractor) under Contract No. *(insert contract number)* with the Department of Energy/*National Nuclear Security Administration*. For (period approved by *NNSA* Patent Counsel) from (date permission to assert copyright was obtained), the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government. There is provision for the possible extension of the term of this license. Subsequent to that period or any extension granted, the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, distribute copies to the public, perform publicly and display publicly, and to permit others to do so. The specific term of the license can be identified by inquiry made to Contractor or DOE/*NNSA*. Neither the United States nor the United States Department of Energy/*National Nuclear Security Administration*, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any data, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

(End of Notice)

(vi) With respect to any data to which the Contractor has received permission to assert copyright, the DOE/*NNSA* has the right, during the five (5) year or specified longer period approved by Patent Counsel as provided for in paragraph (e)*(3)(iii)* of this clause, to request the Contractor to grant a nonexclusive, partially exclusive or exclusive license in any field of use to a responsible applicant(s) upon terms that are reasonable under the circumstances, and if the Contractor refuses such request, to grant such license itself, if the DOE/*NNSA* determines that the Contractor has not made

a satisfactory demonstration that either it or its licensee(s) is actively pursuing commercialization of the data as set forth in subparagraph (e)(1)(A) of this clause. Before licensing under this subparagraph (vi), DOE/*NNSA* shall furnish the Contractor a written request for the Contractor to grant the stated license, and the Contractor shall be allowed thirty (30) days (or such longer period as may be authorized by the contracting officer for good cause shown in writing by the Contractor) after such notice to show cause why the license should not be granted. The Contractor shall have the right to appeal the decision of the DOE/*NNSA* to grant the stated license to the Invention Licensing Appeal Board as set forth in 10 CFR 781.65 --"Appeals."

(vii) No costs shall be allowable for maintenance of copyrighted data, primarily for the benefit of the Contractor and/or a licensee which exceeds DOE *or NNSA* Program needs, except as expressly provided in writing by the contracting officer. The Contractor may use its net royalty income to effect such maintenance costs.

(viii) At any time the Contractor abandons commercialization activities for data for which the Contractor has received permission to assert copyright in accordance with this clause, it shall advise OSTI and Patent Counsel and upon request assign the copyright to the Government so that the Government can distribute the data to the public.

(4) The following notice may be placed on computer software prior to any publication and prior to the Contractor's obtaining permission from the *DOE/NNSA* to assert copyright in the computer software pursuant to paragraph (c)(3) of this section.

Notice

This computer software was prepared by [insert the Contractor's name and the individual author], hereinafter the Contractor, under Contract [insert the Contract Number] with the Department of Energy/*National Nuclear Security Administration* (DOE/*NNSA*). All rights in the computer software are reserved by DOE/*NNSA* on behalf of the United States Government and the Contractor as provided in the Contract. You are authorized to use this computer software for Governmental purposes but it is not to be released or distributed to the public.

NEITHER THE GOVERNMENT NOR THE CONTRACTOR MAKES ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUMES ANY LIABILITY FOR THE USE OF THIS SOFTWARE. This notice including this sentence must appear on any copies of this computer software.

(End of Notice)

(5) A similar notice can be used for data, other than computer software, upon approval of Patent Counsel.

(f) Open Source Software. The Contractor may release computer software first produced by the Contractor in the performance of this Contract under an open source software license. Such software shall hereinafter be referred to as Open Source Software or OSS, subject to the following:

(1) Obtain Program Approval.

(i) The Contractor shall ensure that the DOE or NNSA Program or Programs that have provided funding (Funding Source) to develop the software have approved the distribution of the software as OSS. The funding Program(s) may provide blanket approval for all software developed with funding from that Program. However, OSS release for any one such software shall be subject to approval by all other funding Programs which provide a substantial portion of the funds for the software, if any. If approval from the funding Program(s) is not practicable, Patent Counsel may provide approval instead. For software jointly developed under a CRADA or User Facility, or WFO, authorization from the CRADA Participant(s) or User Facility User(s), or WFO, as applicable, shall be additionally obtained for OSS release.

(ii) If the software is developed with funding from a federal government agency or agencies other than DOE or NNSA, then authorization from all the funding source(s) shall be obtained for OSS release, if practicable. Such federal government agency(ies) may provide blanket approval for all software developed with funding from that agency. However, OSS release of any one of such software shall be subject to approval by all other funding sources for the software, if any. If majority approval from such federal government agency(s) is not practicable, Patent Counsel may provide approval instead.

(2) Assert Copyright in the OSS. Once the Contractor has obtained Funding Source approval in accordance with subparagraph (1) of this section, copyright in the software to be distributed as OSS, may be asserted by the Contractor, or, for OSS developed under a CRADA or User Facility, or WFO, either by the Contractor, CRADA Participant, or User Facility User, or WFO, as applicable, which precludes marking such OSS as Protected Information.

(3) Form DOE F 241.4 for OSS to ESTSC. The Contractor must submit the form DOE F 241.4 (or the current form as may be required by DOE or NNSA) to DOE's Energy Science and Technology Software Center (ESTSC) at the Office of Scientific and Technical Information (OSTI). The Contractor shall provide the unique URL on the form for ESTSC to distribute.

(4) OSS Record. The Contractor must maintain a record, available for inspection by DOE or NNSA, of software distributed as OSS. The record shall contain the following information: (i) name of the computer software (or other identifier), (ii) an abstract with description or purpose of the software, (iii) evidence of the funding Program's or source's approval, (iv) the planned or actual OSS location on the Contractor's webpage or other publicly available location (see subparagraph (5)

below); (v) any names, logos or other identifying marks used in connection with the OSS, whether or not registered; (vi) the type of OSS license used; and (vii) release version of the software for OSS containing derivative works. Upon request of Patent Counsel, the Contractor shall periodically provide Patent Counsel a copy of the record.

(5) Provide Public Access to the OSS. The Contractor shall ensure that the OSS is publicly accessible as an open source via the Contractor's website, Open Source Bulletin Boards operated by third parties, DOE, NNSA, or other industry standard means.

(6) Select an OSS License. Each OSS will be distributed pursuant to an OSS license. The Contractor may choose among industry standard OSS licenses or create its own set of Contractor standard licenses. To assist the Contractor, the DOE Assistant General Counsel for Technology Transfer and Intellectual Property and/or NNSA Patent Counsel may periodically issue guidance on OSS licenses. Each Contractor created OSS license, must contain, at a minimum, the following provisions:

(i) A disclaimer or equivalent that disclaims the Government's and Contractor's liability for licensees' and third parties' use of the software; and

(ii) A grant of permission for licensee to distribute OSS containing the licensee's derivative works subject to trademark restrictions (see subparagraph (10) below). This provision might allow the licensee and third parties to commercialize their derivative works or might request that the licensee's derivative works be forwarded to the Contractor for incorporation into future OSS versions.

(7) Collection of administrative costs is permissible. However, the Contractor may not collect a royalty or other fee in excess of a good faith amount for cost recovery from any licensee for the Contractor's OSS.

(8) Relationship to Other Required Clauses in the Contract. OSS distributed in accordance with this section shall not be subject to the requirements relating to indemnification of the Contractor or Federal Government, U.S. Competitiveness and U.S. Preference as set forth in paragraphs (g) and (h) of the clause within this contract entitled Technology Transfer Mission (DEAR 970.5227-3). The requirement for Contractor to request permission to assert copyright for the purpose of engaging in licensing software for royalties as set forth elsewhere in this clause is not modified by this section.

(9) Performance of Periodic Export Control Reviews by the Contractor. The Contractor is required to follow its Export Control review procedures before designating any software as OSS. If the Contractor is integrating the original OSS with other copyrightable works created by the Contractor or third parties, the Contractor may need to perform periodic export control reviews of the derivative versions.

(10) Determine if Trademark Protection for the OSS is Appropriate. DOE and NNSA Programs and Contractors have established trademarks on some of their computer software. Therefore, the Contractor should determine whether the OSS is already protected by use of an existing trademark. If the OSS is not so protected, then the Program or the Contractor may want to seek trademark protection. If the OSS is protected by a trademark, the OSS license should state that the derivative works of the licensee or other third party may not be distributed using the proprietary trademark without appropriate prior approval.

(11) Government License. For all OSS, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in data copyrighted in accordance with paragraph (f)(2) of this clause to reproduce, distribute copies to the public, prepare derivative works, perform publicly and display publicly, and to permit others to do so.

(12) Availability of Original OSS. The object code and source code of the original OSS developed by the Contractor shall be available to any third party who requests such from the Contractor for so long as such OSS is publicly available. If the Contractor ceases to make the software publicly available, then the Contractor shall submit to ESTSC the object code and source code of the latest version of the OSS developed by the Contractor in addition to a revised DOE F 241.4 form (which includes an abstract) and the Contractor shall direct any inquiries from third parties seeking to obtain the original OSS to ESTSC.

(*g*) Subcontracting.

(1) Unless otherwise directed by the contracting officer, the Contractor agrees to use in subcontracts in which technical data or computer software is expected to be produced or in subcontracts for supplies that contain a requirement for production or delivery of data in accordance with the policy and procedures of 48 CFR Subpart 27.4 as supplemented by 48 CFR 927.401 through 927.409, the clause entitled, "Rights in Data-General" at 48 CFR 52.227-14 modified in accordance with 927.409(a) and including Alternate V. Alternates II through IV of that clause may be included as appropriate with the prior approval of Patent Counsel, and the Contractor shall not acquire rights in a subcontractor's limited rights data or restricted computer software, except through the use of Alternates II or III, respectively, without the prior approval of Patent Counsel. The clause at 48 CFR 52.227-16, Additional Data Requirements, shall be included in subcontracts in accordance with 48 CFR 927.409(h). The Contractor shall use instead the Rights in Data-Facilities clause at 48 CFR 970.5227-1 in subcontracts, including subcontracts for related support services, involving the design or operation of any plants or facilities or specially designed equipment for such plants or facilities that are managed or operated under its contract with DOE*/NNSA*.

(2) It is the responsibility of the Contractor to obtain from its subcontractors technical data and computer software and rights therein, on behalf of the Government, necessary to fulfill the Contractor's obligations to the Government with respect to

such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Contractor shall:

(i) Promptly submit written notice to the contracting officer setting forth reasons or the subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and

(ii) Not proceed with the subcontract without the written authorization of the contracting officer.

(3) Neither the Contractor nor higher-tier subcontractors shall use their power to award subcontracts as economic leverage to acquire rights in a subcontractor's limited rights data and restricted computer software for their private use.

(*h*) Rights in Limited Rights Data. Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable nonexclusive, paid-up license by or for the Government, in any limited rights data of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any limited rights data when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Limited Rights Notice" set forth below. All such limited rights data shall be marked with the following "Limited Rights Notice:"

Limited Rights Notice

These data contain "limited rights data," furnished under Contract No. *(insert contract number)* with the United States Department of Energy*/National Nuclear Security Administration* which may be duplicated and used by the Government with the express limitations that the "limited rights data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Contractor, except that further disclosure or use may be made solely for the following purposes:

(a) Use (except for manufacture) by support services contractors within the scope of their contracts;

(b) This "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(c) This "limited rights data" may be disclosed to other contractors participating in the Government's program of which this Contract is a part for information or use (except for manufacture) in connection with the work performed under their contracts and under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(d) This "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and

(e) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government.

This Notice shall be marked on any reproduction of this data in whole or in part.

(End of Notice)

(*i*) Rights in Restricted Computer Software.

(1) Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up, license by or for the Government, in any restricted computer software of the Contractor specifically used in the performance of this Contract; provided, however, that to the extent that any restricted computer software when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Restricted Rights Notice" set forth below. All such restricted computer software shall be marked with the following "Restricted Rights Notice:"

Restricted Rights Notice—Long Form

(a) This computer software is submitted with restricted rights under Department of Energy*/National Nuclear Security Administration* Contract No. *(insert contract number)*. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice.

(b) This computer software may be:

(1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

(2) Used, copied for use, in a backup or replacement computer if any computer for which it was acquired is inoperative or is replaced;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, provided that only the portions of the derivative software consisting of the restricted computer software are to be made subject to the same restricted rights; and

(5) Disclosed to and reproduced for use by contractors under a service contract (of the type defined in 48 CFR 37.101) in accordance with subparagraphs (b)(1) through (4) of this Notice, provided the Government makes such disclosure or reproduction subject to these restricted rights.

(c) Notwithstanding the foregoing, if this computer software has been published under copyright, it is licensed to the Government, without disclosure prohibitions, with the rights set forth in the restricted rights notice above.

(d) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of Notice)

(2) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

Restricted Rights Notice—Short Form

Use, reproduction, or disclosure is subject to restrictions set forth in the Long Form Notice of DOE/*NNSA* Contract No. *(insert contract number)* with (name of Contractor).

(End of Notice)

(3) If the software is embedded, or if it is commercially impractical to mark it with human readable text, then the symbol R and the clause date (mo/yr) in brackets or a box, a [R-mo/yr], may be used. This will be read to mean restricted computer software, subject to the rights of the Government as described in the Long Form Notice, in effect as of the date indicated next to the symbol. The symbol shall not be used to mark human readable material. In the event this Contract contains any variation to the rights in the Long Form Notice, then the contract number must also be cited.

(4) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, the software will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions and with unlimited rights, unless the Contractor includes the following statement with such copyright notice "Unpublished-rights reserved under the Copyright Laws of the United States."

(*j*) Relationship to patents. Nothing contained in this clause creates or is intended to imply a license to the Government in any patent or is intended to be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

I-21 DEAR 970.5227-3 TECHNOLOGY TRANSFER MISSION (AUG 2002) ALTERNATE II (DEC 2000) (NNSA CLASS DEVIATION OCT 2011)

This clause has as its purpose implementation of the National Competitiveness Technology Transfer Act of 1989 (Sections 3131, 3132, 3133, and 3157 of Pub. L. 101-189 and as amended by Pub. L. 103-160, Sections 3134 and 3160). The Contractor shall conduct technology transfer activities with a purpose of providing benefit from Federal research to U.S. industrial competitiveness.

(a) Authority.

(1) In order to ensure the full use of the results of research and development efforts of, and the capabilities of, the Facilit*ies*, technology transfer, including Cooperative Research and Development Agreements (CRADAs), is established as a mission of the Facilit*ies* consistent with the policy, principles and purposes of Sections 11(a)(1) and 12(g) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a);* Section 3132(b) of Pub. L. 101-189, Sections 3134 and 3160 of Pub. L. 103-160, and of Chapter 38 of the Patent Laws *(35 U.S.C. 200 et seq.*); Section 152 of the Atomic Energy Act of 1954, as amended *(42 U.S.C. 2182);* Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 *(42 U.S.C. 5908);* and Executive Order 12591 of April 10, 1987.

(2) In pursuing the technology transfer mission, the Contractor is authorized to conduct activities including but not limited to: identifying and protecting Intellectual Property made, created or acquired at or by the Facilit*ies*; negotiating licensing agreements and assignments for Intellectual Property made, created or acquired at or by the Facilit*ies* that the Contractor controls or owns; bailments; negotiating all aspects of and entering into CRADAs; providing technical consulting and personnel exchanges; conducting science education activities and reimbursable Work for Others (WFO); providing information exchanges; and making available laboratory or weapon production user facilities. It is fully expected that the Contractor shall use all of the mechanisms available to it to accomplish this technology transfer mission, including, but not limited to, CRADAs, user facilities, WFO, science education activities, consulting, personnel *exchanges*, assignments, and licensing in accordance with this clause.

(3) Nothing in this, or any other section of this contract provides the Contractor with any property right, including the right to license, in data first produced in the performance of this contract, except as expressly provided in the contract or approved in writing by the Contracting Officer.

(b) Definitions.

(1) Contractor's Facilit*ies* Director means the individual who has supervision over all or substantially all of the Contractor's operations at the *f*acilit*ies*.

(2) Intellectual Property means patents, trademarks, copyrights, mask works, protected CRADA information, and other forms of comparable property rights protected by Federal Law and other foreign counterparts.

(3) Cooperative Research and Development Agreement (CRADA) means any agreement entered into between the Contractor as operator of the Facilit*ies*, and one or more parties including at least one non-Federal party under which the Government, through its Facilit*ies*, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the Facilit*ies*; except that such term does not include a procurement contract, grant, or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of Title 31 of the United States Code.

(4) Joint Work Statement (JWS) means a proposal for a CRADA prepared by the Contractor, signed by the Contractor's *F*acilit*ies* Director or designee which describes the following:

(i) Purpose;

(ii) Scope of Work which delineates the rights and responsibilities of the Government, the Contractor and Third Parties, one of which must be a non-Federal party;

(iii) Schedule for the work; and

(iv) Cost and resource contributions of the parties associated with the work and the schedule.

(5) Assignment means any agreement by which the Contractor transfers ownership of Facilit*ies'* Intellectual Property, subject to the Government's retained rights.

(6) Facilit*ies'* Biological Materials means biological materials capable of replication or reproduction, such as plasmids, deoxyribonucleic acid molecules, ribonucleic acid molecules, living organisms of any sort and their progeny, including viruses, prokaryote and eukaryote cell lines, transgenic plants and animals, and any derivatives or modifications thereof or products produced through their use or associated biological products, made under this contract by Facilit*ies'* employees or through the use of *F*acilities*' research resources*.

(7) *F*acilit*ies'* Tangible Research Product means tangible material results of research which

(i) Are provided to permit replication, reproduction, evaluation or confirmation of the research effort, or to evaluate its potential commercial utility;

(ii) Are not materials generally commercially available; and

(iii) Were made under this contract by *F*acilit*ies'* employees or through the use of *F*acilities*' research resources*.

(8) Bailment means any agreement in which the Contractor permits the commercial or non-commercial transfer of custody, access or use of *F*acilit*ies'* Biological Materials or *F*acilit*ies'* Tangible Research Product for a specified purpose of technology transfer or research and development, including without limitation evaluation, and without transferring ownership to the bailee.

(9) Privately funded technology transfer means the prosecuting, maintaining, licensing, and marketing of inventions which are not owned by the Government (and not related to CRADAs) when such activities are conducted entirely without the use of Government funds.

(c) Allowable Costs.

(1) The Contractor shall establish and carry out its technology transfer efforts through appropriate organizational elements consistent with the requirements for an Office of Research and Technology Applications (ORTA) pursuant to paragraphs (b) and (c) of Section 11 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710).* The costs associated with the conduct of technology transfer through the ORTA including activities associated with obtaining, maintaining, licensing, and assigning Intellectual Property rights, increasing the potential for the transfer of technology, and the widespread notice of technology transfer opportunities, shall be deemed allowable provided that such costs meet the other requirements of the allowable costs provisions of this Contract. In addition to any separately designated funds, these costs in any fiscal year shall not exceed an amount equal to 0.5 percent of the operating funds included in the Federal research and development budget (including Work For Others) of the Facilit*ies* for that fiscal year without written approval of the contracting officer.

(2) The Contractor's participation in litigation to enforce or defend Intellectual Property claims incurred in its technology transfer efforts shall be as provided in the clause entitled "Insurance -- Litigation and Claims" of this contract.

(d) Conflicts of Interest -- Technology Transfer. The Contractor shall have implementing procedures that seek to avoid employee and organizational conflicts of interest, or the appearance of conflicts of interest, in the conduct of its technology transfer activities. These procedures shall apply to all persons participating in *the F*acilit*ies* research or related technology transfer activities. Such implementing procedures shall be provided to the contracting officer for review and approval within sixty (60) days after execution of this contract. The contracting officer shall have thirty (30) days thereafter to approve or require specific changes to such procedures. Such implementing procedures shall include procedures to:

(1) Inform employees of and require conformance with standards of conduct and integrity in connection with *research involving nonfederal sponsors and for* CRADA activity in accordance with the provisions of paragraph (n)(5) of this clause;

(2) Review and approve employee activities so as to avoid conflicts of interest arising from commercial utilization activities relating to Contractor-developed Intellectual Property;

(3) Conduct work performed using royalties so as to avoid interference with or adverse effects on ongoing DOE *and NNSA* projects and programs;

(4) Conduct activities relating to commercial utilization of Contractor-developed Intellectual Property so as to avoid interference with or adverse effects on user facility or WFO activities of the Contractor;

(5) Conduct DOE- *and NNSA*-funded projects and programs so as to avoid the appearance of conflicts of interest or actual conflicts of interest with non-Government funded work;

(6) Notify the contracting officer with respect to any new work to be performed or proposed to be performed under the Contract for DOE *or NNSA* or other Federal agencies where the new work or proposal involves Intellectual Property in which the Contractor has obtained or intends to request or elect title;

(7) Except as provided elsewhere in this Contract, obtain the approval of the contracting officer for any licensing of or assignment of title to Intellectual Property rights by the Contractor to any business or corporate affiliate of the Contractor;

(8) Obtain the approval of the contracting officer prior to any assignment, exclusive licensing, or option for exclusive licensing, of Intellectual Property to any individual who has been a Facilit*ies* employee within the previous two years or to the company in which the individual is a principal;

(9) Notify non-Federal sponsors of WFO activities, or non-Federal users of user facilities, of any relevant Intellectual Property interest of the Contractor prior to execution of WFOs or user agreements; *and*

(10) Notify *NNSA* prior to *the Contractor's acting in an advisory role for evaluation of a technical proposal for funding by a third party or a DOE or NNSA Program*, when the subject matter of the proposal involves an elected or waived subject invention under this contract or one in which the Contractor intends to elect to retain title under this contract.

(e) Fairness of Opportunity. In conducting its technology transfer activities, the Contractor shall prepare procedures and take all reasonable measures to ensure widespread notice of availability of technologies suited for transfer and opportunities for exclusive licensing and joint research arrangements. The requirement to widely disseminate the availability of

technology transfer opportunities does not apply to a specific application originated outside of the Facilit*ies* and by entities other than the Contractor.

(f) U.S. Industrial Competitiveness.

(1) In the interest of enhancing U.S. Industrial Competitiveness in its licensing and assignments of Intellectual Property, *the Contractor shall* give preference in such a manner as to enhance the accrual of economic and technological benefits to the U.S. domestic economy. The Contractor shall consider the following factors in all of its *decisions involving* licensing *or* assignment *of* Facilit*ies'* intellectual property where the *Contractor* obtains rights during the course of the Contractor's operation of the Facilit*ies* under this contract:

(i) whether any resulting design and development will be performed in the United States and whether resulting products, embodying parts, including components thereof, will be substantially manufactured in the United States; or

(ii)

(A) whether a proposed licensee or an assignee has a business unit located in the United States and whether significant economic and technical benefits will flow to the United States as a result of the license or assignment agreement; and

(B) in licensing *or assigning* any entity subject to the control of a foreign company or government, whether such foreign government permits United States agencies, organizations or other persons to enter into cooperative research and development agreements and licensing agreements, and has policies to protect United States Intellectual Property rights; *and*

(C) if the proposed licensee, assignee, or parent of either type of entity is subject to the control of a foreign company or government, the Contractor, with the assistance of the Contracting Officer, in considering the factors set forth in paragraph (B) herein, may rely upon the following information; (1) U.S. Trade Representative Inventory of Foreign Trade Barriers, (2) U.S. Trade Representative Special 301 Report, and, (3) such other relevant information available to the contracting officer. The Contractor should review the U.S. Trade Representative web site at: <http://www.ustr.gov> for the most current versions of these reports and other relevant information. The Contractor is encouraged to utilize other available resources, as necessary, to allow for a complete and informed decision.

(2) If the Contractor determines that neither of the conditions in paragraphs (f)(1)(i) or (ii) of this clause is likely to be fulfilled, the Contractor, prior to entering into such an agreement, must obtain the approval of the contracting officer. The contracting officer shall act on any such requests for approval within thirty (30) days.

(3) The Contractor agrees to be bound by the provisions of *35 U.S.C. 204* (Preference for United States industry).

(g) Indemnity -- Product Liability. In entering into written technology transfer agreements, including but not limited to, research and development agreements, licenses, assignments and CRADAs, the Contractor agrees to include in such agreements a requirement that the U.S. Government and the Contractor, except for any negligent acts or omissions of the Contractor, be indemnified for all damages, costs, and expenses, including attorneys' fees, arising from personal injury or property damage occurring as a result of the making, using or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees which was derived from the work performed under the agreement. The Contractor shall identify and obtain the approval of the contracting officer for any proposed exceptions to this requirement such as where State or local law expressly prohibit the Participant from providing indemnification or where the research results will be placed in the public domain.

(h) Disposition of Income.

(1) Royalties or other income earned or retained by the Contractor as a result of performance of authorized technology transfer activities herein shall be used by the Contractor for scientific research, development, technology transfer, and education at the Facilit*ies*, consistent with the research and development mission and objectives of the Facilit*ies* and subject to Section 12(b)(5) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(b)(5)) and Chapter 38 of the Patent Laws *(35 U.S.C. 200* et seq.) as amended through the effective date of this contract award or modification. If the net amounts of such royalties and income received from patent licensing after payment of patenting costs, licensing costs, payments to inventors and other expenses incidental to the administration of Subject Inventions during any fiscal year exceed 5 percent of the Facilit*ies'* budget for that fiscal year, 75 percent of such excess amounts shall be paid to the Treasury of the United States, and the remaining amount of such excess shall be used by the Contractor for the purposes as described above in this paragraph. Any inventions arising out of such scientific research and development activities shall be deemed to be Subject Inventions under the Contract.

(2) The Contractor shall include as a part of its annual Facilit*ies* Institutional Plan or other such annual document a plan setting out those uses to which royalties and other income received as a result of performance of authorized technology transfer activities herein will be applied at the Facilit*ies*, and at the end of the year, provide a separate accounting for how the funds were actually used. Under no circumstances shall these royalties and income be used for an illegal augmentation of funds furnished by the U.S. Government.

(3) The Contractor shall *notify* the *C*ontracting *O*fficer *of any changes to its policy* for making awards or sharing of royalties with Contractor employees, other coinventors and coauthors, including Federal employee coinventors when deemed appropriate by

the contracting officer. *Such changes shall be subject to the approval of the Contracting Officer.*

(i) Transfer to Successor Contractor. In the event of termination or upon the expiration of this Contract, any unexpended balance of income received for use at the Facilit*ies* shall be transferred, at the contracting officer's request, to a successor contractor, or in the absence of a successor contractor, to such other entity as designated by the contracting officer. The Contractor shall transfer title, as one package, to the extent the Contractor retains title, in all patents and patent applications, licenses, accounts containing royalty revenues from such license agreements, including equity positions in third party entities, and other Intellectual Property rights which arose at the Facilit*ies*, to the successor contractor or to the Government as directed by the contracting officer.

(j) Technology Transfer Affecting the National Security.

(1) The Contractor shall notify and obtain the approval of the contracting officer, prior to entering into any technology transfer arrangement, when such technology or any part of such technology is classified or sensitive under Section 148 of the Atomic Energy Act *(42 U.S.C. 2168).* Such notification shall include sufficient information to enable *NNSA* to determine the extent that commercialization of such technology would enhance or diminish security interests of the United States, or diminish communications within DOE*/NNSA*'s nuclear weapon production complex. *NNSA* shall use its best efforts to complete its determination within sixty (60) days of the Contractor's notification, and provision of any supporting information, and *NNSA* shall promptly notify the Contractor as to whether the technology is transferable.

(2) The Contractor shall include in all of its technology transfer agreements with third parties, including, but not limited to, CRADAs, licensing agreements and assignments, notice to such third parties that the export of goods and/or Technical Data from the United States may require some form of export control license or other authority from the U.S. Government and that failure to obtain such export control license may result in criminal liability under U.S. laws.

(3) For other than fundamental research as defined in National Security Decision Directive 189, the Contractor is responsible to conduct internal export control reviews and assure that technology is transferred in accordance with applicable law.

(k) Records. The Contractor shall maintain records of its technology transfer activities in a manner and to the extent satisfactory to the DOE*/NNSA* and specifically including, but not limited to, the licensing agreements, assignments and the records required to implement the requirements of paragraphs (e), (f), and (h) of this clause and shall provide reports to the contracting officer to enable DOE*/NNSA* to maintain the reporting requirements of Section 12(c)(6) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(c)(6)). Such reports shall be made annually in a format to be agreed upon between the Contractor and DOE*/NNSA* and in such a format which will serve to adequately inform DOE*/NNSA* of the Contractor's technology transfer activities while protecting any data not subject to disclosure under the Rights in Technical Data clause and

paragraph (n) of this clause. Such records shall be made available in accordance with the clauses of this Contract pertaining to inspection, audit and examination of records.

(l) Reports to Congress. To facilitate DOE/*NNSA*'s reporting to Congress, the Contractor is required to submit annually to DOE/*NNSA* a technology transfer plan for conducting its technology transfer function for the upcoming year, including plans for securing Intellectual Property rights in Facilit*ies* innovations with commercial promise and plans for managing such innovations so as to benefit the competitiveness of United States industry. This plan shall be provided to the contracting officer on or before October 1st of each year.

(m) Oversight and Appraisal. The Contractor is responsible for developing and implementing effective internal controls for all technology transfer activities consistent with the audit and record requirements of this Contract. Facilit*ies* Contractor performance in implementing the technology transfer mission and the effectiveness of the Contractor's procedures will be evaluated by the contracting officer as part of the annual appraisal process, with input from the cognizant Secretarial Officer or program office.

(n) Technology Transfer through Cooperative Research and Development Agreements. Upon approval of the contracting officer and as provided in a *NNSA*-approved Joint Work Statement (JWS), the Facilit*ies* Director, or designee, may enter into CRADAs on behalf of the DOE/*NNSA* subject to the requirements set forth in this paragraph. *Also, under such circumstances as DOE or NNSA considers appropriate, the DOE or NNSA may waive the following requirements associated with the submission and approval of JWS and CRADA agreements, as legislated by the 2001 National Defense Authorization Act.*

(1) Review and Approval of CRADAs.

(i) Except as otherwise directed in writing by the contracting officer, each JWS shall be submitted to the contracting officer for approval. The Contractor's Facilit*ies* Director or designee shall provide a program mission impact statement and shall include an impact statement regarding related Intellectual Property rights known by the Contractor to be owned by the Government to assist the contracting officer in the approval determination.

(ii) The Contractor shall also include (specific to the proposed CRADA), a statement of compliance with the Fairness of Opportunity requirements of paragraph (e) of this clause.

(iii) Within thirty (30) days after submission of a JWS or proposed CRADA, the contracting officer shall approve, disapprove or request modification to the JWS or CRADA. The contracting officer shall provide a written explanation to the Contractor's Facilit*ies* Director or designee of any disapproval or requirement for modification of a JWS or proposed CRADA.

(iv) Except as otherwise directed in writing by the contracting officer, the Contractor shall not enter into, or begin work under, a CRADA until approval of the CRADA has been granted by the contracting officer. The Contractor

may submit its proposed CRADA to the contracting officer at the time of submitting its proposed JWS or any time thereafter.

(2) Selection of Participants. The Contractor's Facilit*ies* Director or designee in deciding what CRADA to enter into shall:

(i) Give special consideration to small business firms, and consortia involving small business firms;

(ii) Give preference to business units located in the United States which agree that products or processes embodying Intellectual Property will be substantially manufactured or practiced in the United States and, in the case of any industrial organization or other person subject to the control of a foreign company or government, take into consideration whether or not such foreign government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements;

(iii) Provide Fairness of Opportunity in accordance with the requirements of paragraph (e) of this clause; and

(iv) Give consideration to the Conflicts of Interest requirements of paragraph (d) of this clause.

(3) Withholding of Data.

(i) Data that is first produced as a result of research and development activities conducted under a CRADA and that would be a trade secret or commercial or financial data that would be privileged or confidential, if such data had been obtained from a non-Federal third party, may be protected from disclosure under the Freedom of Information Act as provided in the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(c)(7)) for a period as agreed in the CRADA of up to five (5) years from the time the data is first produced. The DOE*/NNSA* shall cooperate with the Contractor in protecting such data.

(ii) Unless otherwise expressly approved by the contracting officer in advance for a specific CRADA, the Contractor agrees, at the request of the contracting officer, to transmit such data to other DOE *or NNSA* facilities for use by DOE*/NNSA* or its Contractors by or on behalf of the Government. When data protected pursuant to paragraph (n)(3)(i) of this clause is so transferred, the Contractor shall clearly mark the data with a legend setting out the restrictions against private use and further dissemination, along with the expiration date of such restrictions.

(iii) In addition to its authority to license Intellectual Property, the Contractor may enter into licensing agreements with third parties for data developed by the Contractor under a CRADA subject to other provisions of this Contract.

However, the Contractor shall neither use the protection against dissemination nor the licensing of data as an alternative to the submittal of invention disclosures which include data protected pursuant to paragraph (n)(3)(i) of this clause.

(4) Work for Others and User Facility Programs.

(i) Work for Others (WFO) and User Facility Agreements (UFAs) *are* available for use by the Contractor in addition to CRADAs for achieving utilization of employee expertise and unique facilities for maximizing technology transfer. The Contractor agrees to inform prospective CRADA participants, who are intending to substantially pay full cost recovery for the effort under a proposed CRADA, of the availability of alternative forms of agreements, i.e., WFO and UFA, and of the Class Patent Waiver provisions associated therewith*, when conditions associated with the activity under the agreement can appropriately be performed under such alternative agreement(s)*.

(ii) Where the Contractor believes that the transfer of technology to the U.S. domestic economy will benefit from, or other equity considerations dictate, an arrangement other than the Class Waiver of patent rights to the sponsor in WFO and UFAs, a request may be made to the contracting officer for an exception to the Class Waivers.

(iii) Rights to inventions made under agreements other than funding agreements with third parties shall be governed by the appropriate provisions incorporated, with DOE*/NNSA* approval, in such agreements, and the provisions in such agreements take precedence over any disposition of rights contained in this Contract. Disposition of rights under any such agreement shall be in accordance with any DOE*/NNSA* class waiver (including Work for Others and User Class Waivers) or individually negotiated waiver that applies to the agreement.

(5) Conflicts of Interest.

(i) Except as provided in paragraph (n)(5)(iii) of this clause, the Contractor shall assure that no employee of the Contractor shall have a substantial role (including an advisory role) in the preparation, negotiation, or approval of a CRADA, if, to such employee's knowledge:

(A) Such employee, or the spouse, child, parent, sibling, or partner of such employee, or an organization (other than the Contractor) in which such employee serves as an officer, director, trustee, partner, or employee –

(1) holds financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA;

(2) receives a gift or gratuity from any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA; or

(B) A financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA, is held by any person or organization with whom such employee is negotiating or has any arrangement concerning prospective employment.

(ii) The Contractor shall require that each employee of the Contractor who has a substantial role (including an advisory role) in the preparation, negotiation, or approval of a CRADA certify through the Contractor to the contracting officer that the circumstances described in paragraph (n)(5)(i) of this clause do not apply to that employee.

(iii) The requirements of paragraphs (n)(5)(i) and (n)(5)(ii) of this clause shall not apply in a case where the contracting officer is advised by the Contractor in advance of the participation of an employee described in those paragraphs in the preparation, negotiation or approval of a CRADA of the nature of and extent of any financial interest described in paragraph (n)(5)(i) of this clause, and the contracting officer determines that such financial interest is not so substantial as to be considered likely to affect the integrity of the Contractor employee's participation in the process of preparing, negotiating, or approving the CRADA.

(o) Technology Transfer in Other Cost-Sharing Agreements. In conducting research and development activities in cost-shared agreements not covered by paragraph (n) of this clause, the Contractor, with prior written permission of the contracting officer, may provide for the withholding of data produced thereunder in accordance with the applicable provisions of paragraph (n)(3) of this clause.

(p) Technology Partnership Ombudsman.

(1) The Contractor agrees to establish a position to be known as "Technology Partnership Ombudsman," to help resolve complaints from outside organizations regarding the policies and actions of the contractor with respect to technology partnerships (including CRADAs), patents owned by the contractor for inventions made at the Facilit*ies*, and technology licensing.

(2) The Ombudsman shall be a senior official of the Contractor's Facilit*ies* staff, who is not involved in day-to-day technology partnerships, patents or technology licensing, or, if appointed from outside the Facilit*ies*, shall function as such senior official.

(3) The duties of the Technology Partnership Ombudsman shall include:

(i) Serving as the focal point for assisting the public and industry in resolving complaints and disputes with the Facilit*ies* regarding technology partnerships, patents, and technology licensing;

(ii) Promoting the use of collaborative alternative dispute resolution techniques such as mediation to facilitate the speedy and low cost resolution of complaints and disputes, when appropriate; and

(iii) Submitting a quarterly report, in a format provided by DOE *and NNSA*, to the Secretary of Energy, the Administrator for Nuclear Security, the Director of the DOE Office of Dispute Resolution, and the Contracting Officer concerning the number and nature of complaints and disputes raised, along with the Ombudsman's assessment of their resolution, consistent with the protection of confidential and sensitive information.

(q) Inapplicability of Provisions to Privately Funded Technology Transfer Activities. Nothing in paragraphs (c) Allowable Costs, (e) Fairness of Opportunity, (f) U.S. Industrial Competitiveness, (g) Indemnity -- Product Liability, (h) Disposition of Income, and (i) Transfer to Successor Contractor of this clause are intended to apply to the contractor's privately funded technology transfer activities if such privately funded activities are addressed elsewhere in the contract.

I-22 DEAR 970.5227-12 PATENT RIGHTS-MANAGEMENT AND OPERATING CONTRACTS, FOR-PROFIT CONTRACTOR, ADVANCE CLASS WAIVER (AUG 2002) ALTERNATE I (DEVIATION JAN 2022) *[MOD 0291]*

(a) Definitions.

(1) DOE licensing regulations means the Department of Energy patent licensing regulations at 10 CFR Part 781.

(2) DOE patent waiver regulations means the Department of Energy patent waiver regulations at 10 CFR Part 784.

(3) Exceptional Circumstance Subject Invention means any subject invention in a technical field or related to a task determined by the Department of Energy to be subject to an exceptional circumstance under *35 U.S.C. 202*(a)(ii), and in accordance with 37 CFR 401.3(e).

(4) Invention means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act *(7 U.S.C. 2321,* et seq.).

(5) Made, when used in relation to any invention, means the conception or first actual reduction to practice of such invention.

(6) Patent Counsel means *the National Nuclear Security Administration (NNSA)* Patent Counsel assisting the contracting activity.

(7) Practical application means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(8) Subject Invention means any invention of the contractor conceived or first actually reduced to practice in the course of or under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, *7 U.S.C. 2401*(d)) shall also occur during the period of contract performance.

(9) Weapons-Related Subject Invention means any subject invention conceived or first actually reduced to practice in the course of or under work funded by or through defense programs, including Department of Defense and intelligence reimbursable work, or the Naval Nuclear Propulsion Program of the Department of Energy or the National Nuclear Security Administration.

(b) Allocation of Principal Rights.

(1) Assignment to the Government. Except to the extent that rights are retained by the Contractor by the granting of an advance class waiver pursuant to subparagraph (b)(2) of this clause or a determination of greater rights pursuant to subparagraph (b)(7) of this clause, the Contractor agrees to assign to the Government the entire right, title, and interest throughout the world in and to each subject invention.

(2) Advance class waiver of Government rights to the Contractor. DOE may grant to the Contractor an advance class waiver of Government rights in any or all subject inventions*, including weapons-related subject inventions*, at the time of execution of the contract, such that the Contractor may elect to retain the entire right, title and interest throughout the world to such waived subject inventions, in accordance with the terms and conditions of the advance class waiver. *The Contractor does not have a right to retain title to any weapons-related subject inventions prior to being granted title by*

NNSA under the Class Waiver. In its elections of weapons-related subject inventions, the NNSA alone will make the determination that the subject invention is in fact a weapons-related subject invention, and that rights to the Contractor may be granted, based on specific procedural requirements that the Contractor must meet, as enumerated in the Class Waiver. Unless otherwise provided by the terms of the advance class waiver, any rights in a subject invention retained by the Contractor under an advance class waiver are subject to *35 U.S.C. 203* and the provisions of this clause, including the Government license provided for in subparagraph (b)(3) of this clause, and any reservations and conditions deemed appropriate by the Secretary of Energy or designee.

(3) Government license. With respect to any subject invention to which the Contractor retains title, either under an advance class waiver pursuant to subparagraph (b)(2) or a determination of greater rights pursuant to subparagraph (b)(7) of this clause, the Government has a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(4) Foreign patent rights. If the Government has title to a subject invention and the Government decides against securing patent rights in a foreign country for the subject invention, the Contractor may request such foreign patent rights from DOE*/NNSA*, and DOE*/NNSA* may grant the Contractor's request, subject to *35 U.S.C. 203* and the provisions of this clause, including the Government license provided for in subparagraph (b)(3) of this clause, and any reservations and conditions deemed appropriate by the Secretary of Energy or designee.

(5) Exceptional circumstance subject inventions. Except to the extent that rights are retained by the Contractor by a determination of greater rights in accordance with subparagraph (b)(7) of this clause, the Contractor does not have the right to retain title to any exceptional circumstance subject inventions and agrees to assign to the Government the entire right, title, and interest, throughout the world, in and to any exceptional circumstance subject inventions.

(i) Inventions within or relating to the following fields of technology are exceptional circumstance subject inventions:

(A) uranium enrichment technology;

(B) storage and disposal of civilian high-level nuclear waste and spent fuel technology; and

(C) national security technologies classified or sensitive under Section 148 of the Atomic Energy Act *(42 U.S.C. 2168).*

(ii) Inventions made under any agreement, contract or subcontract related to the following initiatives or programs are exceptional circumstance subject inventions:

(A) DOE Steel Initiative and Metals Initiative;

(B) U.S. Advanced Battery Consortium;

(C) any funding agreement which is funded in part by the Electric Power Research Institute (EPRI) or the Gas Research Institute (GRI);

(D) Solid State Energy Conversion Alliance (SECA) if the Contractor is a participant in the "Core Technology Program"; and

(E) Solid State Lighting Program (SSLP) if the Contractor is a participant in the "Core Technology Program."

(iii) Inventions subject to "Department of Energy Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies" (S&E DEC) issued 6/7/2021 must comply with paragraph (j) U.S. Competitiveness requirements to the maximum extent authorized by the S&E DEC unless otherwise directed by DOE Patent Counsel in writing.

(iv) DOE*/NNSA* reserves the right to unilaterally amend this contract to modify, by deletion or insertion, technical fields, programs, initiatives, and/or other classifications for the purpose of defining DOE*/NNSA* exceptional circumstance subject inventions.

(6) Treaties and international agreements. Any rights acquired by the Contractor in subject inventions are subject to any disposition of right, title, or interest

in or to subject inventions provided for in treaties or international agreements *identified at http://www.state.gov/documents/organization/123747.pdf*. DOE*/NNSA* reserves the right to unilaterally amend this contract to identify specific treaties or international agreements entered into or to be entered into by the Government after the effective date of this contract and to effectuate those license or other rights which are necessary for the Government to meet its obligations to foreign governments, their nationals and international organizations under such treaties or international agreements with respect to subject inventions made after the date of the amendment.

(7) Contractor request for greater rights. The Contractor may request greater rights in an identified subject invention, including an exceptional circumstance subject invention, to which the Contractor does not have the right to elect to retain title, in accordance with the DOE patent waiver regulations, by submitting such a request in writing to Patent Counsel with a copy to the Contracting Officer at the time the subject invention is first disclosed to DOE*/NNSA* pursuant to subparagraph (c)(1) of this clause, or not later than eight (8) months after such disclosure, unless a longer period is authorized in writing by the Contracting Officer for good cause shown in writing by the Contractor. DOE*/NNSA* may grant or refuse to grant such a request by the Contractor. Unless otherwise provided in the greater rights determination, any rights in a subject invention obtained by the Contractor under a determination of greater rights is subject to *35 U.S.C. 203* and the provisions of this clause, including the Government license provided for in subparagraph (b)(3) of this clause, and to any reservations and conditions deemed appropriate by the Secretary of Energy or designee.

(8) Contractor employee-inventor rights. If the Contractor does not elect to retain title to a subject invention or does not request greater rights in a subject invention, including an exceptional circumstance subject invention, to which the Contractor does not have the right to elect to retain title, a Contractor employee-inventor, after consultation with the Contractor and with written authorization from the Contractor in accordance with 10 CFR 784.9(b)(4), may request greater rights, including title, in the subject invention or the exceptional circumstance invention from DOE*/NNSA*, and DOE*/NNSA* may grant or refuse to grant such a request by the Contractor employee-inventor.

(9) Government assignment of rights in Government employees' subject inventions. If a DOE *or NNSA* employee is a joint inventor of a subject invention to which the Contractor has rights, DOE *or NNSA, as applicable,* may assign or refuse to assign any rights in the subject invention acquired by the Government from the DOE *or NNSA* employee to the Contractor, consistent with 48 CFR 27.304-1(d). Unless otherwise provided in the

assignment, the rights assigned to the Contractor are subject to the Government license provided for in subparagraph (b)(3) of this clause, and to any provision of this clause applicable to subject inventions in which rights are retained by the Contractor, and to any reservations and conditions deemed appropriate by the Secretary of Energy or designee. The Contractor shall share royalties collected for the manufacture, use or sale of the subject invention with the DOE *or NNSA* employee.

(10) Weapons related subject inventions. Except to the extent that DOE is solely satisfied that the Contractor meets certain procedural requirements and DOE grants rights to the Contractor in weapons related subject inventions, the Contractor does not have a right to retain title to any weapons related subject inventions.

(c) Subject Invention Disclosure, Election of Title, and Filing of Patent Application by Contractor.

(1) Subject invention disclosure. The Contractor shall disclose each subject invention to Patent Counsel with a copy to the contracting officer within two (2) months after an inventor discloses it in writing to Contractor personnel responsible for patent matters or, if earlier, within six (6) months after the Contractor has knowledge of the subject invention, but in any event before any on sale, public use, or publication of the subject invention. The disclosure to DOE/NNSA shall be in the form of a written report and shall include:

(i) the contract number under which the subject invention was made;

(ii) the inventor(s) of the subject invention;

(iii) a description of the subject invention in sufficient technical detail to convey a clear understanding of the nature, purpose and operation of the subject invention, and of the physical, chemical, biological or electrical characteristics of the subject invention, to the extent known by the Contractor at the time of the disclosure;

(iv) the date and identification of any publication, on sale or public use of the invention;

(v) the date and identification of any submissions for publication of any

manuscripts describing the invention, and a statement of whether the manuscript is accepted for publication, to the extent known by the Contractor at the time of the disclosure;

(vi) a statement indicating whether the subject invention is an exceptional circumstance subject invention, related to national security, or subject to a treaty or an international agreement, to the extent known or believed by Contractor at the time of the disclosure;

(vii) all sources of funding by Budget and Resources (B&R) code; and

(viii) the identification of any agreement relating to the subject invention, including Cooperative Research and Development Agreements and Work-for-Others agreements.

Unless the Contractor contends otherwise in writing at the time the invention is disclosed, inventions disclosed to DOE*/NNSA* under this paragraph are deemed made in the manner specified in Sections (a)(1) and (a)(2) of *42 U.S.C. 5908.*

(2) Publication after disclosure. After disclosure of the subject invention to the DOE*/NNSA*, the Contractor shall promptly notify Patent Counsel of the acceptance for publication of any manuscript describing the subject invention or of any expected or on sale or public use of the subject invention, known by the Contractor. The Contractor shall obtain approval from Patent Counsel prior to any release or publication of information concerning an exceptional circumstance subject invention or any subject invention related to a treaty or international agreement.

(3) Election by the Contractor under an advance class waiver. If the Contractor has the right to elect to retain title to subject inventions under an advance class waiver granted in accordance with subparagraph (b)(2) of this clause, and unless otherwise provided for by the terms of the advance class waiver, the Contractor shall elect in writing whether or not to retain title to any subject invention by notifying DOE*/NNSA* within two (2) years of the date of the disclosure of the subject invention to DOE*/NNSA*, in accordance with subparagraph (c)(1) of this clause. The notification shall identify the advance class waiver, state the countries, including the United States, in which rights are retained, and certify that the subject invention is not an exceptional circumstance subject invention or subject to a treaty or international agreement. If a publication, on sale or public use of the subject invention has

initiated the 1-year statutory period under *35 U.S.C. 102*(b), the period for election may be shortened by DOE*/NNSA* to a date that is no more than sixty (60) days prior to the end of the 1-year statutory period.

(4) Filing of patent applications by the Contractor under an advance class waiver. If the Contractor has the right to retain title to a subject invention in accordance with an advance class waiver pursuant to subparagraph (b)(2) of this clause or a determination of greater rights pursuant to paragraph (b)(7) of this clause, and unless otherwise provided for by the terms of the advance class waiver or greater rights determination, the Contractor shall file an initial patent application claiming the subject invention to which it retains title either within one (1) year after the Contractor's election to retain or grant of title to the subject invention or prior to the end of any 1-year statutory period under *35 U.S.C. 102*(b), whichever occurs first. Any patent applications filed by the Contractor in foreign countries or international patent offices shall be filed within either ten (10) months of the corresponding initial patent application or, if such filing has been prohibited by a Secrecy Order, within six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications.

(5) Submission of patent information and documents. If the Contractor files a domestic or foreign patent application claiming a subject invention, the Contractor shall promptly submit to Patent Counsel the following information and documents:

(i) The filing date, serial number, title, and a copy of the patent application (including an English-language version if filed in a language other than English);

(ii) An executed and approved instrument fully confirmatory of all Government rights in the subject invention; and

(iii) The patent number, issue date, and a copy of any issued patent claiming the subject invention.

(6) Contractor's request for an extension of time. Requests for an extension of the time to disclose a subject invention, to elect to retain title to a subject invention, or to file a patent application under subparagraphs (c)(1), (3), and (4) of this clause may be granted at the discretion of Patent Counsel or DOE/NNSA.

(7) Duplication and disclosure of documents. The Government may duplicate and disclose subject invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause; provided, however, that any such duplication or disclosure by the Government is subject to *35 U.S.C. 205* and 37 CFR Part 40.

(d) Conditions When the Government May Obtain Title Notwithstanding an Advance Class Waiver.

(1) Return of title to a subject invention. If the Contractor requests that DOE*/NNSA* acquire title or rights from the Contractor in a subject invention, including an exceptional circumstance subject invention, to which the Contractor retained title or rights under subparagraph (b)(2) or subparagraph (b)(7) of this clause, DOE*/NNSA* may acquire such title or rights from the Contractor, or DOE*/NNSA* may decide against acquiring such title or rights from the Contractor, at DOE*/NNSA*'s sole discretion.

(2) Failure to disclose or elect to retain title. Title vests in DOE*/NNSA* and DOE*/NNSA* may request, in writing, a formal assignment of title to a subject invention from the Contractor, and the Contractor shall convey title to the subject invention to DOE*/NNSA*, if the Contractor elects not to retain title to the subject invention under an advance class waiver, or the Contractor fails to disclose or fails to elect to retain title to the subject invention within the times specified in subparagraphs (c)(1) and (c)(3) of this clause.

(3) Failure to file domestic or foreign patent applications. In those countries in which the Contractor fails to file a patent application within the times specified in subparagraph (c)(4) of this clause, DOE*/NNSA* may request, in writing, title to the subject invention from the Contractor, and the Contractor shall convey title to the subject invention to DOE; provided, however, that if the Contractor has filed a patent application in any country after the times specified in subparagraph (c)(4) of this clause, but prior to its receipt of DOE*/NNSA* 's written request for title, the Contractor continues to retain title in that country.

(4) Discontinuation of patent protection by the Contractor. If the Contractor decides to discontinue the prosecution of a patent application, the payment of maintenance fees, or the defense of a subject invention in a reexamination or opposition proceeding, in any country, DOE*/NNSA* may request, in writing, title to the subject invention from the Contractor, and the Contractor shall convey title to the subject invention to DOE*/NNSA*.

(5) Termination of advance class waiver. DOE/*NNSA* may request, in writing, title to any subject inventions from the Contractor, and the Contractor shall convey title to the subject inventions to DOE/*NNSA*, if the advance class waiver granted under subparagraph (b)(2) of this clause is terminated under paragraph (u) of this clause.

(e) Minimum Rights of the Contractor.

(1) Request for a Contractor license. Except for subject inventions that the Contractor fails to disclose within the time periods specified at subparagraph (c)(1) of this clause, the Contractor may request a revocable, nonexclusive, royalty-free license in each patent application filed in any country claiming a subject invention and any resulting patent in which the Government obtains title, and DOE/*NNSA* may grant or refuse to grant such a request by the Contractor. If DOE/*NNSA* grants the Contractor's request for a license, the Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded.

(2) Transfer of a Contractor license. DOE/*NNSA* shall approve any transfer of the Contractor's license in a subject invention, and DOE/*NNSA* may determine that the Contractor's license is non-transferable, on a case-by-case basis.

(3) Revocation or modification of a Contractor license. DOE/*NNSA* may revoke or modify the Contractor's domestic license to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR Part 404 and DOE/*NNSA* licensing regulations. DOE/*NNSA* may not revoke the Contractor's domestic license in that field of use or the geographical areas in which the Contractor, its licensees or its domestic subsidiaries or affiliates have achieved practical applications and continues to make the benefits of the invention reasonably accessible to the public. DOE/*NNSA* may revoke or modify the Contractor's license in any foreign country to the extent the Contractor, its licensees, or its domestic subsidiaries or affiliates failed to achieve practical application in that foreign country.

(4) Notice of revocation or modification of a Contractor license. Before revocation or modification of the license, DOE/*NNSA* shall furnish the Contractor a written notice of its intention to revoke or modify the license,

and the Contractor shall be allowed thirty (30) days from the date of the notice (or such other time as may be authorized by DOE*/NNSA* for good cause shown by the Contractor) to show cause why the license should not be revoked or modified. The Contractor has the right to appeal any decision concerning the revocation or modification of its license, in accordance with applicable regulations in 37 CFR Part 404 and DOE*/NNSA* licensing regulations.

(f) Contractor Action to Protect the Government's Interest.

(1) Execution and delivery of title or license instruments. The Contractor agrees to execute or have executed, and to deliver promptly to DOE *or NNSA* all instruments necessary to accomplish the following actions:

(i) establish or confirm the Government's rights throughout the world in subject inventions to which the Contractor elects to retain title;

(ii) convey title in a subject invention to DOE*/NNSA* pursuant to subparagraph (b)(5) and paragraph (d) of this clause; or

(iii) enable the Government to obtain patent protection throughout the world in a subject invention to which the Government has title.

(2) Contractor employee agreements. The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to Contractor personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor, each subject invention made under this contract, and to execute all papers necessary to file patent applications claiming subject inventions or to establish the Government's rights in the subject inventions. This disclosure format shall at a minimum include the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) Contractor procedures for reporting subject inventions to DOE*/NNSA*. The Contractor agrees to establish and maintain effective procedures for

ensuring the prompt identification and timely disclosure of subject inventions to DOE/*NNSA*. The Contractor shall submit a written description of such procedures to the Contracting Officer, upon request, for evaluation and approval of the effectiveness of such procedures by the Contracting Officer.

(4) Notification of discontinuation of patent protection. With respect to any subject invention for which the Contractor has responsibility for patent prosecution, the Contractor shall notify Patent Counsel of any decision to discontinue the prosecution of a patent application, payment of maintenance fees, or defense of a subject invention in a reexamination or opposition proceeding, in any country, not less than thirty (30) days before the expiration of the response period for any action required by the corresponding patent office.

(5) Notification of Government rights. With respect to any subject invention to which the Contractor has title, the Contractor agrees to include, within the specification of any United States patent application and within any patent issuing thereon claiming a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the United States Department of Energy/*National Nuclear Security Administration*. The Government has certain rights in the invention."

(6) Avoidance of Royalty Charges. If the Contractor licenses a subject invention, the Contractor agrees to avoid royalty charges on acquisitions involving Government funds, including funds derived through a Military Assistance Program of the Government or otherwise derived through the Government, to refund any amounts received as royalty charges on a subject invention in acquisitions for, or on behalf of, the Government, and to provide for such refund in any instrument transferring rights in the subject invention to any party.

(7) DOE/*NNSA* approval of assignment of rights. Rights in a subject invention in the United States may not be assigned by the Contractor without the approval of DOE/*NNSA*.

(8) Small business firm licensees. The Contractor shall make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and may give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention

which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision as to whether to give a preference in any specific case is at the discretion of the Contractor.

(9) Contractor licensing of subject inventions. To the extent that it provides the most effective technology transfer, licensing of subject inventions shall be administered by Contractor employees on location at the facility.

(g) Subcontracts.

(1) Subcontractor subject inventions. The Contractor shall not obtain rights in the subcontractor's subject inventions as part of the consideration for awarding a subcontract.

(2) Inclusion of patent rights clause-non-profit organization or small business firm subcontractors. Unless otherwise authorized or directed by the Contracting Officer, the Contractor shall include the patent rights clause at 48 CFR 952.227-11, suitably modified to identify the parties, in all subcontracts, at any tier, for experimental, developmental, demonstration or research work to be performed by a small business firm or domestic nonprofit organization, except subcontracts which are subject to exceptional circumstances in accordance with *35 U.S.C. 202* and subparagraph (b)(5) of this clause.

(3) Inclusion of patent rights clause-subcontractors other than non-profit organizations or small business firms. Except for the subcontracts described in subparagraph (g)(2) of this clause, the Contractor shall include the patent rights clause at 48 CFR 952.227-13, suitably modified to identify the parties and any applicable exceptional circumstance, in any contract for experimental, developmental, demonstration or research work.

(4) DOE*/NNSA* and subcontractor contract. With respect to subcontracts at any tier, DOE*/NNSA*, the subcontractor and Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE*/NNSA* with respect to those matters covered by this clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(5) Subcontractor refusal to accept terms of patent rights clause. If a prospective subcontractor refuses to accept the terms of a patent rights clause, the Contractor shall promptly submit a written notice to the Contracting Officer stating the subcontractor's reasons for such refusal and including relevant information for expediting disposition of the matter; and the Contractor shall not proceed with the subcontract without the written authorization of the Contracting Officer.

(6) Notification of award of subcontract. Upon the award of any subcontract at any tier containing a patent rights clause, the Contractor shall promptly notify the Contracting Officer in writing and identify the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of a subcontract.

(7) Identification of subcontractor subject inventions. If the Contractor in the performance of this contract becomes aware of a subject invention made under a subcontract, the Contractor shall promptly notify Patent Counsel and identify the subject invention, with a copy of the notification and identification to the Contracting Officer.

(h) Reporting on Utilization of Subject Inventions. Upon request by DOE *or NNSA*, the Contractor agrees to submit periodic reports, no more frequently than annually, describing the utilization of a subject invention or efforts made by the Contractor or its licensees or assignees to obtain utilization of the subject invention. The reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other data and information reasonably specified by DOE *or NNSA*. Upon request by DOE *or NNSA*, the Contractor also agrees to provide reports in connection with any march-in proceedings undertaken by DOE *or NNSA*, in accordance with paragraph (j) of this clause. If any data or information reported by the Contractor in accordance with this provision is considered privileged and confidential by the Contractor, its licensee, or assignee and the Contractor properly marks the data or information privileged or confidential, DOE *and NNSA* agree not to disclose such information to persons outside the Government, to the extent permitted by law.

(i) Preference for United States Industry. Notwithstanding any other provision of this clause the Contractor agrees that with respect to any subject invention in which it retains title, neither it nor any assignee may grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees

that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, DOE *or NNSA* may waive the requirement for such an agreement upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) U.S. Competitiveness. The Contractor agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Contractor agrees that it will not license, assign or otherwise transfer any subject invention to any entity, at any tier, unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s), then the assignment, license, or other transfer of rights in the subject invention(s) is/are suspended until approved in writing by DOE. The Contractor and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Contractor will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.

(k) March-In Rights. With respect to any subject invention to which the Contractor has elected to retain or is granted title, DOE *or NNSA* may, in accordance with the procedures in the DOE patent waiver regulations, require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances. If the Contractor, assignee or exclusive licensee refuses such a request, DOE*/NNSA* has the right to grant such a license itself if DOE*/NNSA* determines that-

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs that are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by government regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement to substantially manufacture in the United States and required by paragraph (i) of this clause has neither been obtained nor waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(l) Communications. The Contractor shall direct any notification, disclosure, or request provided for in this clause to the Patent Counsel identified in the contract.

(m) Reports.

(1) Interim reports. Upon DOE's *or NNSA's* request, the Contractor shall submit to DOE *or NNSA*, no more frequently than annually, a list of subject inventions disclosed to DOE*/NNSA* during a specified period, or a statement that no subject inventions were made during the specified period; and/or a list of subcontracts containing a patent clause and awarded by the Contractor during a specified period, or a statement that no such subcontracts were awarded during the specified period. The interim report shall state whether the Contractor's invention disclosures were submitted to DOE*/NNSA* in accordance with the requirements of subparagraphs (f)(3) and (f)(4) of this clause.

(2) Final reports. Upon DOE's *or NNSA's* request, the Contractor shall submit to DOE *or NNSA*, prior to closeout of the contract or within three (3) months of the date of completion of the contracted work, a list of all subject inventions disclosed during the performance period of the contract, or a statement that no subject inventions were made during the contract performance period; and/or a list of all subcontracts containing a patent clause and awarded by the Contractor during the contract performance period, or a statement that no such subcontracts were awarded during the contract performance period.

(n) Facilities License. In addition to the rights of the parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any

inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the contractor at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or products manufactured at the facility

(1) to practice or have practiced by or for the Government at the facility, and

(2) to transfer such license with the transfer of that facility. Notwithstanding the acceptance or exercise by the Government of these rights, the Government may contest at any time the enforceability, validity or scope of, or title to, any rights or patents herein licensed.

(o) Atomic Energy.

(1) Pecuniary awards. No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, may be asserted with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) Patent Agreements. Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall obtain patent agreements to effectuate the provisions of subparagraph (o)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(p) Classified Inventions.

(1) Approval for filing a foreign patent application. The Contractor shall not file or cause to be filed an application or registration for a patent disclosing a subject invention related to classified subject matter in any country other than the United States without first obtaining the written approval of the Contracting Officer.

(2) Transmission of classified subject matter. If in accordance with this clause the Contractor files a patent application in the United States disclosing a subject invention that is classified for reasons of security, the Contractor shall observe all applicable security regulations covering the transmission of classified subject matter. If the Contractor transmits a patent application disclosing a classified subject invention to the United States Patent and

Trademark Office (USPTO), the Contractor shall submit a separate letter to the USPTO identifying the contract or contracts by agency and agreement number that require security classification markings to be placed on the patent application.

(3) Inclusion of clause in subcontracts. The Contractor agrees to include the substance of this clause in subcontracts at any tier that cover or are likely to cover subject matter classified for reasons of security.

(q) Examination of Records Relating to Inventions.

(1) Contractor compliance. Until the expiration of three (3) years after final payment under this contract, the Contracting Officer or any authorized representative may examine any books (including laboratory notebooks), records, and documents and other supporting data of the Contractor, which the Contracting Officer or authorized representative deems reasonably pertinent to the discovery or identification of subject inventions, including exceptional circumstance subject inventions, or to determine Contractor (and inventor) compliance with the requirements of this clause, including proper identification and disclosure of subject inventions, and establishment and maintenance of invention disclosure procedures.

(2) Unreported inventions. If the Contracting Officer is aware of an invention that is not disclosed by the Contractor to DOE*/NNSA*, and the Contracting Officer believes the unreported invention may be a subject invention, DOE *or NNSA* may require the Contractor to submit to DOE *or NNSA* a disclosure of the invention for a determination of ownership rights.

(3) Confidentiality. Any examination of records under this paragraph is subject to appropriate conditions to protect the confidentiality of the information involved.

(4) Power of inspection. With respect to a subject invention for which the Contractor has responsibility for patent prosecution, the Contractor shall furnish the Government, upon request by DOE *or NNSA*, an irrevocable power to inspect and make copies of a prosecution file for any patent application claiming the subject invention.

(r) Patent Functions. Upon the written request of the Contracting Officer or Patent Counsel, the Contractor agrees to make reasonable efforts to support DOE*/NNSA*

in accomplishing patent- related functions for work arising out of the contract, including, but not limited to, the prosecution of patent applications, and the determination of questions of novelty, patentability, and inventorship.

(s) Educational Awards Subject to *35 U.S.C. 212.* The Contractor shall notify the Contracting Officer prior to the placement of any person subject to *35 U.S.C. 212* in an area of technology or task (1) related to exceptional circumstance technology or (2) any person who is subject to treaties or international agreements as set forth in paragraph (b)(6) of this clause or to agreements other than funding agreements. The Contracting Officer may disapprove of any such placement.

(t) Annual Appraisal by *NNSA* Patent Counsel. *NNSA* Patent Counsel may conduct an annual appraisal to evaluate the Contractor's effectiveness in identifying and protecting subject inventions in accordance with DOE *and NNSA* policy.

(u) Publication. *It is recognized that during the course of the work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interest of DOE or NNSA or the Contractor, timely notification of the release of scientific and technical publications shall be provided to the Contractor personnel responsible for patent matters. Contractor delivery of this data and information to the Patent Counsel shall be considered met if the required data and information is entered into an appropriate database of listed publications and the Patent Counsel has "read-only" access to the database. A copy of this data and information must be made available to the Contracting Officer upon request.*

(v) Termination of Contractor's Advance Class Waiver. If a request by the Contractor for an advance class waiver pursuant to subparagraph (b)(2) of this clause or a determination of greater rights pursuant to paragraph (c) of this clause contains false material statements or fails to disclose material facts, and DOE *or NNSA* relies on the false statements or omissions in granting the Contractor's request, the waiver or grant of any Government rights (in whole or in part) to the subject invention(s) may be terminated at the discretion of the Secretary of Energy or designee. Prior to termination, DOE *or NNSA* shall provide the Contractor with written notification of the termination, including a statement of facts in support of the termination, and the Contractor shall be allowed thirty (30) days, or a longer period authorized by the Secretary of Energy or designee for good cause shown in writing by the Contractor, to show cause for not terminating the waiver or grant. Any termination of an advance class waiver or a determination of greater rights is

subject to the Contractor's license as provided for in paragraph (f) of this clause.

(End of Clause)

I-23 DEAR 970.5232-2 PAYMENTS AND ADVANCES (OCT 2021) ALTERNATE II (OCT 2021) ALTERNATE IV (DEC 2000) (NNSA CLASS DEVIATION FEB 2022) [REPLACED *0255, MODIFIED 0330*]

(a) *Payment of Total Available Fee: Base Fee, Fixed Fee, and Performance Fee.*

(1) The base fee and/or fixed fee amounts, if any, are payable in equal monthly installments. Total available fee amount earned is payable following the Government's Determination of Total Available Fee Amount Earned. Base fee and fixed fee amounts and total available fee amount earned payments shall be made by direct payment or withdrawn from funds advanced or available under this contract, as determined by the Contracting Officer. The Contracting Officer may offset against any such fee payment the amounts owed to the Government by the Contractor, including any amounts owed for disallowed costs under this contract. No base fee or fixed fee amounts or total available fee amount earned payments may be withdrawn against the payments cleared financing arrangement without prior written approval of the Contracting Officer.

(2) *Provisional fee.* Additionally, if the Contracting Officer authorizes provisional payment of fee and for only as long as the Contracting Officer authorizes it, the Contractor may withdraw from funds advanced on the last working day of each month a provisional fee equal to 3 percent of the annual available award fee amount. The Contracting Officer may for any reason withdraw his/her authorization allowing the Contractor's withdrawal of provisional fee if at any time in his/her judgement the Contractor will not earn the provisional fee. The Contracting Officer's decision to authorize the Contractor's withdrawal of provisional fee or to withdraw such authorization is solely within the Contracting Officer's discretion. Following the Government's determination of total available fee amount earned, the Contractor may withdraw from funds advanced the amount by which earned fee exceeds provisional fee; and must immediately return to funds advanced the amount by which provisional fee exceeds earned fee.

(b) *Payments on account of allowable costs.* The Contracting Officer and the Contractor shall agree as to the extent to which payment for allowable costs or payments for other items specifically approved in writing by the Contracting Officer (for example, negotiated fixed amounts) shall be made from advances of Government funds.

(c) *Timing of payments.* Funds for payments of allowable costs, including payments for pension plan contributions, shall be drawn from the special financial institution account when those payments are made, not when the costs are accrued.

(d) *Special financial institution account-use.* All advances of Government funds shall be withdrawn pursuant to a payments cleared financing arrangement prescribed by DOE in favor of the financial institution or, at the option of the Government, shall be made by direct payment or other payment mechanism to the Contractor, and shall be deposited only in the special financial institution account referred to in the Special Financial Institution Account Agreement, which is incorporated into this contract as Appendix P. The contractor will follow current procedures and requirements for establishing and managing the special financial institution account that are stated in the Department's Financial Management Handbook and relevant Department of Treasury rules.

(e) *Use of the special financial institution account for unallowable costs.* Government funds in the special financial institution account shall be used only for costs allowable and, if applicable, fees earned under this contract, negotiated fixed amounts, or payments for other items specifically approved in writing by the Contracting Officer.

(f) *Title to funds advanced*. Title to the unexpended balance of any funds advanced and of any special financial institution account established pursuant to this clause shall remain in the Government and be superior to any claim or lien of the financial institution of deposit or others. It isunderstood that an advance to the Contractor hereunder is not a loan to the Contractor, and will not require the payment of interest by the Contractor, and the Contractor acquires no right, title or interest in or to such advance other than the right to make expenditures therefrom, as provided in this clause.

(g) *Financial settlement.* The Government shall promptly pay to the Contractor the unpaid balance of allowable costs and fee upon termination of the work, expiration of the term of the contract, or completion of the work and its acceptance by the Government after—

(1) Compliance by the Contractor with DOE/NNSA's patent clearance requirements; and

(2) The furnishing by the Contractor of—

(i) An assignment of the Contractor's rights to any refunds, rebates, allowances, accounts receivable, collections accruing to the Contractor in connection with the work under this contract, or other credits applicable to allowable costs under the contract;

(ii) A closing financial statement which shall also include a schedule reconciling the allowable costs by fiscal year to the payments made by fiscal year;

(iii) The accounting for Government-owned property required by the clause entitled "Property";and

(iv) A release discharging the Government, its officers, agents, and employees

from all liabilities, obligations, and claims arising out of or under this contract subject only to the following exceptions—

(A) Specified claims in stated amounts or in estimated amounts where the amounts are not susceptible to exact statement by the Contractor;

(B) Claims, together with reasonable expenses incidental thereto, based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided that such claims are not known to the Contractor on the date of the execution of the release; and provided further that the Contractor gives notice of such claims in writing to the Contracting Officer promptly, but not more than one (1) year after the Contractor's right of action first accrues. In addition, the Contractor shall provide prompt notice to the Contracting Officer of all potential claims under this clause, whether in litigation or not (see also Contract Clause, 48 CFR 970.5228-1, "Insurance— Litigation and Claims");

(C) Claims for reimbursement of costs (other than expenses of the Contractor by reason of any indemnification of the Government against patent liability), including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this contract relating to patents; and

(D) Claims recognizable under the clause entitled, Nuclear Hazards Indemnity Agreement.

(3) In arriving at the amount due the Contractor under this clause, there shall be deducted—

(i) Any claim which the Government may have against the Contractor in connection with this contract; and

(ii) Deductions due under the terms of this contract and not otherwise recovered by or credited to the Government. The unliquidated balance of the special financial institution account may be applied to the amount due and any balance shall be returned to the Government forthwith.

(h) Claims. Claims for credit against funds advanced for payment shall be accompanied by such supporting documents and justification as the Contracting Officer shall prescribe.

(i) Discounts. The Contractor shall take and afford the Government the advantage of all known and available cash and trade discounts, rebates, allowances, credits, salvage, and commissions unless the Contracting Officer finds that action is not in the best interest of the Government.

(j) *Collections.* All collections accruing to the Contractor in connection with the work under this contract, except for the Contractor's fee and royalties or other income accruing to the Contractor from technology transfer activities in accordance with this contract, shall be Government property and shall be processed and accounted for in accordance with applicable requirements imposed by the Contracting Officer pursuant to the Laws, regulations, and DOE directives clause of this contract and, to the extent consistent with those requirements, shall be deposited in the special financial institution account or otherwise made available for payment of allowable costs under this contract, unless otherwise directed by the Contracting Officer.

(k) Direct payment of charges. The Government reserves the right, upon 10 days' written notice from the Contracting Officer to the Contractor, to pay directly to the persons concerned, all amounts due which otherwise would be allowable under this contract. Any payment so made shall discharge the Government of all liability to the Contractor.

(l) *Determining allowable costs*. Regardless of contract type, the Contracting Officer shall determine allowable costs in accordance with 48 CFR 31.2 and 48 CFR 970.31 in effect on the date of this contract and other provisions of this contract.

(End of clause)

I-24 DEAR 970.5232-3 ACCOUNTS, RECORDS, AND INSPECTION (OCT 2021) (NNSA CLASS DEVIATION NOV 2021) [*MOD 0255*]

(a) *Accounts.* The Contractor shall maintain a single financial management system with separate and distinct set of accounts, records, documents, and other evidence showing and supporting: all allowable costs, collections accruing to the Contractor in connection with the work under this contract, other applicable credits, negotiated fixed amounts, and fee accruals under this contract; and the receipt, use, and disposition of all Government property coming into the possession of the Contractor under this contract. The system of accounts employed by the Contractor shall be satisfactory to DOE and in accordance with generally accepted accounting principles consistently applied.

(b) *Inspection and audit of accounts and records.* All books of account and records relating to this contract shall be subject to inspection and audit by DOE or its designees in accordance with the provisions of the clause, Access to and Ownership of Records, at all reasonable times, before and during the period of retention provided for in paragraph (d) of this clause, and the Contractor shall afford DOE proper facilities for such inspection and audit.

(c) *Audit of subcontractors' incurred costs*. If the subcontractor's incurred costs are a factor in determining the amount the Contractor pays the subcontractor and submits to the Government for reimbursement, the Contractor shall: perform a sufficient amount of audit work (that the Contracting Officer agrees is sufficient) of its subcontractor's incurred costs to provide reasonable assurance the costs are allowable; or arrange for an audit by the cognizant

government audit agency through the Contracting Officer of its subcontractor's incurred costs.

(d) *Disposition of records.* Except as agreed upon by the Government and the Contractor, all financial and cost reports, books of account and supporting documents, system files, data bases, and other data evidencing costs allowable, collections accruing to the Contractor in connection with the work under this contract, other applicable credits, and fee accruals under this contract, shall be the property of the Government, and shall be delivered to the Government or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work or, in any event, as the Contracting Officer shall direct upon completion or termination of this contract and final audit of accounts hereunder. Except as otherwise provided in this contract, including provisions of the clause 970.5204-3, Access to and Ownership of Records, all other records in the possession of the Contractor relating to this contract shall be preserved by the Contractor for a period of three years after final payment under this contract or otherwise disposed of in such manner as may be agreed upon by the Government and the Contractor.

(e) *Reports.* The Contractor shall furnish such progress reports and schedules, financial and cost reports, and other reports concerning the work under this contract as the Contracting Officer may from time to time require.

(f) *Inspections*. The DOE shall have the right to inspect the work and activities of the Contractor under this contract at such time and in such manner as it shall deem appropriate.

(g) *Subcontracts.* The Contractor further agrees to require the inclusion of provisions similar to those in paragraphs (a) through (g) and paragraph (h) of this clause in all subcontracts (including fixed-price or unit-price subcontracts or purchase orders) of any tier entered into hereunder where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor.

(h) *Comptroller General.*

(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's or subcontractor's directly pertinent records involving transactions related to this contract or a subcontract hereunder and to interview any employee regarding such transactions.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(3) Nothing in this contract shall be deemed to preclude an audit by the Government Accountability Office of any transaction under this contract.

(i) *Internal audit.* The Contractor agrees to design and maintain an internal audit plan and an internal audit organization.

(1) Upon contract award, the exercise of any contract option, or the extension of the contract, the Contractor must submit to the Contracting Officer for approval an Internal Audit Implementation Design to include the overall strategy for internal audits. The Audit Implementation Design must describe—

(i) The internal audit organization's placement within the Contractor's organization and its reporting requirements;
(ii) The audit organization's size and the experience and educational standards of its staff;
(iii) The audit organization's relationship to the corporate entities of the Contractor;
(iv) The standards to be used in conducting the internal audits;
(v) The overall internal audit strategy of this contract, considering particularly the method of auditing costs incurred in the performance of the contract;
(vi) The intended use of external audit resources;
(vii) The plan for audit of subcontracts, both pre-award and post-award; and
(viii) The schedule for peer review of internal audits by other contractor internal audit organizations, or other independent third party audit entities approved by the DOE Contracting Officer.

(2) By each January 31 of the contract performance period, the Contractor must submit an annual audit report to the Contracting Officer, providing a summary of the audit activities undertaken during the previous fiscal year. That report shall reflect the results of the internal audits during the previous fiscal year and the actions to be taken to resolve weaknesses identified in the contractor's system of business, financial, or management controls.

(3) By each June 30 of the contract performance period, the Contractor must submit to the Contracting Officer an annual audit plan for the activities to be undertaken by the internal audit organization during the next fiscal year that is designed to test the costs incurred and contractor management systems described in the internal audit design.

(4) The Contracting Officer may require revisions to documents submitted under paragraphs (i)(1), (i)(2), and (i)(3) of this clause, including the design plan for the internal audits, the annual report, and the annual internal audits.

(j) *Remedies*. If at any time during contract performance, the Contracting Officer determines that unallowable costs were claimed by the Contractor to the extent of making the contractor's management controls suspect, or the contractor's management systems that validate costs incurred and claimed suspect, the Contracting Officer may, in his or her sole discretion, require the Contractor to cease using the special financial institution account in whole or with regard to specified accounts, requiring reimbursable costs to be claimed by periodic vouchering. In addition, the Contracting Officer, where he or she deems it appropriate, may: Impose a penalty under 48 CFR 52.242-3, Penalties for Unallowable Costs; require a refund; reduce the

contractor's otherwise earned fee; and take such other action as authorized in law, regulation, or this contract.

(End of clause)

I-25 DEAR 970.5232-6 WORK FOR OTHERS FUNDING AUTHORIZATION (DEC 2000) (NNSA CLASS DEVIATION OCT 2011)

Any uncollectible receivables resulting from the Contractor utilizing contractor corporate funding for reimbursable work shall be the responsibility of the Contractor, and the United States Government shall have no liability to the Contractor for the Contractor's uncollected receivables. The Contractor is permitted to provide advance payment utilizing contractor corporate funds for reimbursable work to be performed by the Contractor for a non-Federal entity in instances where advance payment from that entity is required under the Laws, regulations, and DOE *and NNSA* directives clause of this contract and such advance cannot be obtained. The Contractor is also permitted to provide advance payment utilizing contractor corporate funds to continue reimbursable work to be performed by the Contractor for a Federal entity when the term or the funds on a Federal interagency agreement required under the Laws, regulations, and DOE *and NNSA* directives clause of this contract have elapsed. The Contractor's utilization of contractor corporate funds does not relieve the Contractor of its responsibility to comply with all requirements for Work for Others applicable to this contract.

I-26 DEAR 970.5244-1 Contractor Purchasing System (OCT 2021) (NNSA CLASS DEVIATION Feb 2022) *[MODs 0091, 0203, 0255]*

(a) *General.* The Contractor shall develop, implement, and maintain formal policies, practices, and procedures to be used in the award of subcontracts consistent with this clause. The Contractor's purchasing system and methods shall be fully documented, consistently applied, and acceptable to the Department of Energy (DOE) in accordance with 48 CFR 970.4401-1. The Contractor shall maintain file documentation appropriate to the value of the purchase and adequate to establish the propriety of the transaction and the price paid. The Contractor's obligations include, among other things, retaining documentation to justify the cost on any flexibly priced subcontract or any subcontract with a flexibly priced element. DOE reserves the right at any time to require that the Contractor submit for approval any or all subcontracts or purchases under this contract. The Contractor shall not purchase any item or service expressly prohibited by the written direction of DOE, and shall use any special and directed sources expressly required by the DOE Contracting Officer. DOE will conduct periodic appraisals of the Contractor's management of all facets of the Contractor's purchasing function, including the Contractor's compliance with its approved system and methods and the Contractor's management of the function. Such appraisals shall be performed against the criteria and measures set forth in 48 CFR subpart 44.3. The Contractor's approved purchasing system and methods shall include the requirements set forth in paragraphs (b) through (y) of this clause.

(b) *Acquisition of utility services.* Utility services shall be acquired in accordance with the requirements of 48 CFR subpart 970.41.

(c) *Acquisition of real* property. Real estate or real property interests shall be acquired in

accordance with 48 CFR subpart 917.74.

(d) *Advance notice of proposed subcontract awards.* Advance notice shall be provided in accordance with 48 CFR 970.4401-3.

(e) *Audit of subcontractors.* (1) The Contractor shall provide for—

(i) Periodic post-award audit--or a sufficient amount of audit work (that the Contracting Officer agrees is sufficient)--to provide reasonable assurance that all claimed subcontract costs are allowable for: flexibly priced subcontracts at all tiers; and the flexibly priced elements in any subcontracts at all tiers ("flexibly priced" subcontracts and elements include Cost-Reimbursement subcontracts, Time-and-Materials subcontracts, cost-reimbursement elements in Fixed-Priced contracts,etc.); and

(ii) Audits, where necessary, to provide a valid basis for pre-award or cost or price analysis.

(2) Responsibility for determining the allowability of costs under each cost-reimbursement subcontract remains with the Contractor or next higher-tier subcontractor. The Contractor shall provide, in appropriate cases, for the timely joint involvement of the Contractor and the DOE Contracting Officer in resolution of subcontract cost allowability. In no case, however, shall the Contractor's subcontract audit arrangements preclude the Contracting Officer's determination of the allowability or unallowability of the subcontract costs the Contractor claims for reimbursement.

(3) Where audits of subcontractors at any tier are required, the Contractor shall consult with the Cognizant Contract Auditor to determine if the auditor is already planning to audit the subcontract. If not already planned, the Contractor shall consult with the DOE Contracting Officer on the best approach for obtaining an audit; this may involve employing external auditors. The Contractor shall interact with the cognizant Federal agency in a manner appropriate to the magnitude and nature of the subcontracted work. In no case, however, shall subcontractor auditing arrangements preclude determination by the Contracting Officer of the allowability or unallowability of subcontractor costs claimed for reimbursement by the Contractor.

(4) Allowable costs for cost-reimbursement subcontracts are to be determined in accordance withthe cost principles of 48 CFR part 31, appropriate for the type of organization to which the subcontract is to be awarded, as supplemented by 48 CFR part 931. Allowable costs in the purchase or transfer from contractor-affiliated sources shall be determined in accordance with 48 CFR 970.4402-3 and 48 CFR 31.205-26(e).

(f) *Bonds and insurance.*

(1) The Contractor shall require performance bonds in amounts as set forth in 48 CFR 28.102-2(b) for all fixed-priced and unit-priced construction subcontracts in excessof

$150,000. The Contractor shall consider the use of performance bonds in fixed-price non- construction subcontracts, where appropriate.

(2) For fixed-price, unit-priced and cost reimbursement construction subcontracts in excess of $150,000, a payment bond shall be obtained on Standard Form 25A modified to name the Contractor as well as the United States of America as obligees. The amounts shall be determined in accordance with 48 CFR 28.102-2(b).

(3) For fixed-price, unit-priced and cost-reimbursement construction subcontracts greater than $35,000, but not greater than $150,000, the Contractor shall select two or more of the payment protections at 48 CFR 28.102-1(b), giving particular consideration to the inclusion of an irrevocable letter of credit as one of the selected alternatives.

(4) A subcontractor may have more than one acceptable surety in both construction and other subcontracts, provided that in no case will the liability of any one surety exceed the maximum sum for which it is qualified for any one obligation. For subcontracts other than construction, a co-surety (two or more sureties together) may reinsure amounts in excess of their individual capacity, with each surety having the required underwriting capacity that appears on the list of acceptable corporate sureties.

(g) *Buy American.* The Contractor shall comply with the provisions of the Buy American Act as reflected in 48 CFR 52.225-1 and 48 CFR 52.225-9. The Contractor shall forward determinations of non-availability of individual items to the DOE Contracting Officer for approval. Items in excess of $500,000 require the prior concurrence of the Head of Contracting Activity. If, however, the Contractor has an approved purchasing system, the Head of the Contracting Activity may authorize the Contractor to make determinations of non-availability for individual items valued at $500,000 or less.

(h) *Construction and architect-engineer subcontracts*. (1) *Independent Estimates.* A detailed, independent estimate of costs shall be prepared for all construction work to be subcontracted that is expected to exceed the simplified acquisition threshold.

(2) *Prevention of conflict of interest.* (i) The Contractor shall not award a subcontract for construction to the architect-engineer firm or an affiliate that prepared the design. This prohibition does not preclude the award of a "turnkey" subcontract so long as the subcontractor assumes all liability for defects in design and construction and consequential damages.

(ii) The Contractor shall not award both a cost-reimbursement subcontract and a fixed-price subcontract for construction or architect-engineer services or any combination thereof to the same firm where those subcontracts will be performed at the same site.

(iii) The Contractor shall not employ the construction subcontractor or an affiliate to inspect the firm's work. The Contractor shall assure that the working relationships of the construction subcontractor and the subcontractor inspecting its work and the authority of the inspector are clearly defined.

(i) *Contractor-affiliated sources.* Equipment, materials, supplies, or services from a contractor-affiliated source shall be purchased or transferred in accordance with 48 CFR 970.4402-3.

(j) *Contractor-subcontractor relationship.* The obligations of the Contractor under paragraph (a) of this clause, including the development of the purchasing system and methods, and purchases made pursuant thereto, shall not relieve the Contractor of any obligation under this contract (including, among other things, the obligation to properly supervise, administer, and coordinate the work of subcontractors). Subcontracts shall be in the name of the Contractor, and shall not bind or purport to bind the Government.

(k) *Government property.* The Contractor shall establish and maintain a property management system that complies with criteria in 48 CFR 970.5245-1, Property.

(l) *Indemnification.* Except for Price-Anderson Nuclear Hazards Indemnity, no subcontractor may be indemnified except with the prior approval of the Head of the Contracting Activity, in consultation with the local legal counsel.

(m) *Leasing of motor vehicles.* Contractors shall comply with 48 CFR subpart 8.11 and 48 CFR subpart 908.11.

(n) *Management, acquisition and use of information resources.* Requirements for information technology and telecommunications facilities, services, and equipment, shall be reviewed and approved in accordance with applicable DOE Orders, statutes, and regulations.

(o) *Priorities, allocations and allotments.* Priorities, allocations and allotments shall be extended to appropriate subcontracts in accordance with the clause or clauses of this contract dealing with priorities and allocations.

(p) *Purchase of special items.* Purchase of the following items shall be in accordance with the following provisions of 48 CFR subpart 8.5, 48 CFR subpart 908.71 Federal Management Regulation (41 CFR chapter 102), the Federal Property Management Regulation (41 CFR chapter 101), and the following:

(1) Motor vehicles—48 CFR 908.7101
(2) Aircraft—48 CFR 908.7102
(3) Security Cabinets—48 CFR 908.7106
(4) Alcohol—48 CFR 908.7107
(5) Helium—48 CFR subpart 8.5
(6) Fuels and packaged petroleum products—48 CFR 908.7109
(7) Coal—48 CFR 908.7110
(8) Arms and Ammunition—48 CFR 908.7111
(9) Heavy Water—48 CFR 908.7121(a)
(10) Precious Metals—48 CFR 908.7121(b)
(11) Lithium—48 CFR 908.7121(c)
(12) Products and services of the blind and severely handicapped—41 CFR 101-26.701
(13) Products made in Federal penal and correctional institutions—41 CFR 101-26.702

(q) *Purchase versus lease determinations.* The Contractor shall determine whether required equipment and property should be purchased or leased, and establish appropriate thresholds for application of lease versus purchase determinations. Such determinations shall be made—

(1) At time of original acquisition;
(2) When lease renewals are being considered; and
(3) At other times as circumstances warrant.

(r) *Quality assurance.* The Contractor shall include appropriate clauses in subcontracts related to quality assurance requirements that provide no less protection for the Government, as that required of the Contractor in the prime contract.

(s) *Setoff of assigned subcontractor proceeds.* Where a subcontractor has been permitted to assign payments to a financial institution, the assignment shall treat any right of setoff in accordance with 48 CFR 932.803.

(t) *Strategic and critical materials.* The Contractor may use strategic and critical materials in the National Defense Stockpile.

(u) *Termination.* When subcontracts are terminated as a result of the termination of all or a portion of this contract, the Contractor shall settle with subcontractors in conformity with the policies and principles relating to settlement of prime contracts in 48 CFR subparts 49.1, 49.2 and 49.3. When subcontracts are terminated for reasons other than termination of this contract, the Contractor shall settle such subcontracts in general conformity with the policies and principles in 48 CFR subparts 49.1, 49.2, 49.3 and 49.4. Each such termination shall be documented and consistent with the terms of this contract. Terminations which require approval by the Government shall be supported by accounting data and other information as may be directed by the Contracting Officer.

(v) *Unclassified controlled nuclear information.* Subcontracts involving unclassified controlled nuclear information shall be treated in accordance with 10 CFR part 1017.

(w) *Subcontract flowdown requirements.* In addition to terms and conditions that are included in the prime contract which direct application of such terms and conditions in appropriate subcontracts, the Contractor shall include the following clauses in subcontracts, as applicable:

(1) Wage rate requirements (construction), formerly known as Davis-Bacon, clauses prescribed in 48 CFR 22.407.

(2) Foreign Travel clause prescribed in 48 CFR 952.247-70.

(3) Counterintelligence clause prescribed in 48 CFR 970.0404-4(a).

(4) Service Contract Labor Standards, formerly known as Service Contract Act

clauses prescribed in 48 CFR 22.1006.

(5) State and local taxes clause prescribed in 48 CFR 970.2904-1.

(6) Cost or pricing data clauses prescribed in 48 CFR 970.1504-3-1

(7) Displaced Employee Hiring Preference clause prescribed in 48 CFR 926.7104.

(8) Service Contract Reporting clause prescribed in 48 CFR 4.1705.

(9) Contract Work Hours and Safety Standards – Overtime Compensation as prescribed in 48 CFR 22.305.

(10) Paid Sick leave under Executive Order 13706 as prescribed in 48 CFR 22.2110.

(11) Collective Bargaining Agreements Management and Operating Contracts as prescribed in 48 CFR 970.2201-1-3.

(12) Workplace Substance Abuse Programs at DOE Sites as prescribed in 48 CFR 970.2305-4.

(x) *Legal services.* Contractor purchases of litigation and other legal services are subject to the requirements in 10 CFR part 719.

(End of clause)

I-27 FAR 52.208-8 REQUIRED SOURCES FOR HELIUM AND HELIUM USAGE DATA (APR 2002) ***[MOD 0015]***

(a) Definitions.

"Bureau of Land Management," as used in this clause, means the Department of the Interior, Bureau of Land Management, Amarillo Field Office, Helium Operations, located at 801 South Fillmore Street, Suite 500, Amarillo, TX 79101-3545.

"Federal helium supplier" means a private helium vendor that has an in-kind crude helium sales contract with the Bureau of Land Management (BLM) and that is on the BLM Amarillo Field Office's Authorized List of Federal Helium Suppliers available via the Internet at http://www.nm.blm.gov/www/amfo/amfo_home.html.

"Major helium requirement" means an estimated refined helium requirement greater than 200,000 standard cubic feet (scf) (measured at 14.7 pounds per square inch absolute pressure and 70 degrees Fahrenheit temperature) of gaseous helium or 7510 liters of liquid helium delivered to a helium use location per year.

(b) Requirements --

(1) Contractors must purchase major helium requirements from Federal helium suppliers, to the extent that supplies are available.

(2) The Contractor shall provide to the Contracting Officer the following data within 10 days after the Contractor or subcontractor receives a delivery of helium from a Federal helium supplier --

(i) The name of the supplier;

(ii) The amount of helium purchased;

(iii) The delivery date(s); and

(iv) The location where the helium was used.

(c) *Subcontracts* --The Contractor shall insert this clause, including this paragraph (c), in any subcontract or order that involves a major helium requirement.

I-28 FAR 52.222-30 DAVIS-BACON ACT—PRICE ADJUSTMENT (NONE OR SEPARATELY SPECIFIED METHOD) (DEC 2001) ***[MOD 0015]***

(a) The wage determination issued under the Davis-Bacon Act by the Administrator, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, that is effective for an option to extend the term of the contract, will apply to that option period.

(b) The Contracting Officer will make no adjustment in contract price, other than provided for elsewhere in this contract, to cover any increases or decreases in wages and benefits as a result of--

(1) Incorporation of the Department of Labor's wage determination applicable at the exercise of the option to extend the term of the contract.

(2) Incorporation of a wage determination otherwise applied to the contract by operation of law; or

(3) An increase in wages and benefits resulting from any other requirement applicable to workers subject to the Davis-Bacon Act.

I-29 FAR 52.225-11 BUY AMERICAN ACT - CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (NOV 2013) ***[MOD 0015]***

(a) *Definitions*. As used in this clause--

"Caribbean Basin country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin

country into a new and different construction material distinct from the materials from which it was transformed.

"Commercially available off-the-shelf (COTS) item"—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 U.S.C. App. 1702), such as agricultural products and petroleum products.

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

"Designated country" means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement country (Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech

Republic, Denmark. Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, or United Kingdom);

(2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

"Designated country construction material" means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic: or

(ii) The construction material is a COTS item.

"Free Trade Agreement country construction material means" a construction material that--

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a

new and different construction material distinct from the materials from which it was transformed.

"Foreign construction material" means a construction material other than a domestic construction material.

"Least developed country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

"United States" means the 50 States, the District of Columbia, and outlying areas.

"WTO GPA country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials*.

(1) This clause implements the Buy American Act (41 U.S.C. chapter 83) by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American Act is waived for construction material that is a COTS item. (See FAR 12.50-5(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:_____ [*Contracting Officer to list applicable excepted materials or indicate "none"*]

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before

contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *
Item 1			
Foreign construction material			
Domestic construction material			
Item 2			
Foreign construction material			
Domestic construction material			

[*List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.*]

[*Include other applicable supporting information.*]

[** Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

I-30 FAR 52.234-4 EARNED VALUE MANAGEMENT SYSTEM (JUL 2006) *[MOD 0015]*

(a) The Contractor shall use an earned value management system (EVMS) that has been determined by the Cognizant Federal Agency (CFA) to be compliant with the guidelines in ANSI/EIA Standard - 748 (current version at the time of award) to manage this contract. If the Contractor's current EVMS has not been determined compliant at the time of award, see paragraph (b) of this clause. The Contractor shall submit reports in accordance with the requirements of this contract.

(b) If, at the time of award, the Contractor's EVM System has not been determined by the CFA as complying with EVMS guidelines or the Contractor does not have an existing

cost/schedule control system that is compliant with the guidelines in ANSI/EIA Standard - 748 (current version at time of award), the Contractor shall--

(1) Apply the current system to the contract; and

(2) Take necessary actions to meet the milestones in the Contractor's EVMS plan approved by the Contracting Officer.

(c) The Government will conduct an Integrated Baseline Review (IBR). If a pre-award IBR has not been conducted, a post award IBR shall be conducted as early as practicable after contract award.

(d) The Contracting Officer may require an IBR at--

(1) Exercise of significant options; or

(2) Incorporation of major modifications.

(e) Unless a waiver is granted by the CFA, Contractor proposed EVMS changes require approval of the CFA prior to implementation. The CFA will advise the Contractor of the acceptability of such changes within 30 calendar days after receipt of the notice of proposed changes from the Contractor. If the advance approval requirements are waived by the CFA, the Contractor shall disclose EVMS changes to the CFA at least 14 calendar days prior to the effective date of implementation.

(f) The Contractor shall provide access to all pertinent records and data requested by the Contracting Officer or a duly authorized representative as necessary to permit Government surveillance to ensure that the EVMS conforms, and continues to conform, with the performance criteria referenced in paragraph (a) of this clause.

(g) The Contractor shall require the subcontractors specified below to comply with the requirements of this clause: [Insert list of applicable subcontractors.]

I-31 FAR 52.222-99 [Removed and Reserved] (Deviation) ***[MOD 0106]***

I-32 DEAR 970.5231-4 Preexisting Conditions Alternate ii (Dec 2000) ***[MODs 0091, 0128]***

(a) The Department of Energy agrees to reimburse the Contractor, and the Contractor shall not be held responsible, for any liability (including without limitation, a claim involving strict or absolute liability and any civil fine or penalty), expense, or remediation cost, but limited to those of a civil nature, which may be incurred by, imposed on, or asserted against the Contractor arising out of any condition, act, or failure to act which occurred before the Contractor assumed responsibility on July 1, 2014. To the extent the acts or omissions of the Contractor cause or add to any liability, expense or remediation cost resulting from conditions in existence prior to July 1, 2014, the Contractor shall be responsible in accordance with the terms and conditions of this contract.

(b) The obligations of the Department of Energy under this clause are subject to the availability of appropriated funds.

(c) The Contractor has the duty to inspect the facilities and sites and timely identify to the Contracting Officer those conditions which it believes could give rise to a liability, obligation, loss, damage, penalty, fine, claim, action, suit, cost, expense, or disbursement or areas of actual or potential noncompliance with the terms and conditions of this contract or applicable law or regulation. The Contractor has the responsibility to take corrective action, as directed by the Contracting Officer and as required elsewhere in this contract.

Note: Paragraph (c) is Alternate II.

(End of clause)

I-33 DEAR 970.5204-3 Access to and Ownership of Records (Oct 2014) (Deviation) ***[MOD 0106]***

(a) Government-owned records. Except as provided in paragraph (b) of this clause, all records acquired or generated by the contractor in its performance of this contract, including records series described within the contract as Privacy Act systems of records, shall be the property of the Government and shall be maintained in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, -- Subchapter B, "Records Management." The contractor shall ensure records classified as Privacy Act system of records are maintained in accordance with FAR 52.224.2 "Privacy Act."

(b) Contractor-owned records. The following records are considered the property of the contractor and are not within the scope of paragraph (a) of this clause.

(1) Employment-related records (such as worker's compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns; records generated during the course of responding to allegations of research misconduct; records generated during other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/health-related records and similar files), and non-employee patient medical/health-related records, except those records described by the contract as being operated and maintained by the Contractor in Privacy Act system of records.

(2) Confidential contractor financial information, internal corporate governance records and correspondence between the contractor and other segments of the contractor located away from the DOE facility (i.e., the contractor's corporate headquarters);

(3) Records relating to any procurement action by the contractor, except for records that under 48 CFR 970.5232-3 are described as the property of the Government; and

(4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and

(5) The following categories of records maintained pursuant to the technology transfer clause of this contract:

(i)) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates, other financial information, or commercialization plans, and all related documents, notes and correspondence.

(ii) The contractor's protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.

(iii) Patent, copyright, mask work, and trademark application files and related contractor invention disclosures, documents and correspondence, where the contractor has elected rights or has permission to assert rights and has not relinquished such rights or turned such rights over to the Government.

(c) Contract completion or termination. Upon contract completion or termination, the contractor shall ensure final disposition of all Government-owned records to a Federal Record Center, the National Archives and Records Administration, to a successor contractor, its designee, or other destinations, as directed by the Contracting Officer. Upon the request of the Government, the contractor shall provide either the original contractor-owned records or copies of the records identified in paragraph (b) of this clause, to DOE or its designees, including successor contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws (including the Privacy Act) as appropriate. If the contractor chooses to provide its original contractor-owned records to the Government or its designee, the contractor shall retain future rights to access and copy such records as needed.

(d) Inspection, copying, and audit of records. All records acquired or generated by the Contractor under this contract in the possession of the Contractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by the Government or its designees at all reasonable times, and the Contractor shall afford the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the Contracting Officer, the Contractor shall deliver such records to a location specified by the Contracting Officer for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable federal laws (including the Privacy Act), as appropriate.

(e) Applicability. This clause applies to all records created, received and maintained by the contractor without regard to the date or origination of such records including all records acquired from a predecessor contractor.

(f) Records maintenance and retention. Contractor shall create, maintain, safeguard, and disposition records in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, -- Subchapter B, "Records Management" and the National Archives and Records Administration (NARA)-approved Records Disposition Schedules. Records retention standards are applicable for all classes of records, whether or not the records are owned by the Government or the contractor. The Government may waive application of the NARA-approved Records Disposition Schedules, if, upon termination or completion of the contract, the Government exercises its right under paragraph (c) of this clause to obtain copies of records described in paragraph (b) and delivery of records described in paragraph (a) of this clause.

(g) Subcontracts.

(1) The contractor shall include the requirements of this clause in all subcontracts that contain the *Radiation Protection and Nuclear Criticality* clause at 952.223-72 , or whenever an on-site subcontract scope of work (i) could result in potential exposure to: A) radioactive materials; B) beryllium; or C) asbestos or (ii) involves a risk associated with chronic or acute exposure to toxic chemicals or substances or other hazardous materials that can cause adverse health impacts, in accordance with 10 CFR part 851. In determining its flow-down responsibilities, the Contractor shall include the requirements of this clause in all on-site subcontracts where the scope of work is performed in: (A) Radiological Areas and/or Radioactive Materials Areas (as defined at 10 CFR 835.2); (B) areas where beryllium concentrations exceed or can reasonably be expected to exceed action levels specified in 10 CFR 850; (C) an Asbestos Regulated area (as defined at 29 CFR 1926.1101 or 29 CFR 1910.1001); or (D) a workplace where hazard prevention and abatement processes are implemented in compliance with 10 CFR 851.21 to specifically control potential exposure to toxic chemicals or substances or other hazardous materials that can cause long term health impacts.

(2) The Contractor may elect to take on the obligations of the provisions of this clause in lieu of the subcontractor, and maintain records that would otherwise be maintained by the subcontractor.

(End of Clause)

I-34 DEAR 970.5216-7 ALLOWABLE COST AND PAYMENT (OCT 2021) (NNSA CLASS DEVIATION FEB 2022) *[MODs 182, 0255]*

(a) Payment.

(1) The Government will make payments to the Contractor per DEAR 970.5232-2, "Payments and Advances." The payments will only be for amounts determined to be allowable by the Contracting Officer in accordance with the: Federal Acquisition Regulation (FAR) subpart 31.2 in effect on the date of this contract; the Department of Energy Acquisition Regulation subpart 970.31 in effect on the date of this contract; and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable

detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(b) Reimbursing costs.

(1) The Government will make payments to the Contractor per DEAR 970.5232-2, “Payments and Advances.” The payments will only be for allowable costs. For the purpose of reimbursing allowable costs (except as provided in paragraph (b)(2) of this clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only—

(i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;

(ii) When the Contractor is not delinquent in paying costs of contract performance in theordinary course of business, costs incurred, but not necessarily paid, for-

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made–

(1) In accordance with the terms and conditions of a subcontract or invoice; and

(2) Ordinarily within 30 days of the submission of the Contractor’s payment request tothe Government (the Government will make payments to the Contractor per DEAR 970.5232-2, “Payments and Advances”);

(B) Materials issued from the Contractor’s inventory and placed in the production process for use on the contract;

(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

(F) Indirect costs paid in accordance with the same provisions as required for direct costs as described within this section.

(iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until paid in accordance with DEAR 970.5232-2 Payments and Advances (OCT 2021) Alternate II (OCT 2021) Alternate IV (DEC 2000) (NNSA CLASS DEVIATION FEB 2022) paragraph (b).

(3) Notwithstanding the audit and adjustment of invoices, payments, or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by referenced designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) *Small business concerns*. The Government will make payments to the Contractor per DEAR 970.5232-2, "Payments and Advances."

(d) Final indirect cost rates.

(1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2)

(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) or to an authorized representative within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.

(ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirectcost rates as promptly as practical after receipt of the contract auditor's results.

(iii) An adequate indirect cost rate proposal shall include the following data unless otherwise specified by the cognizant Federal agency official:

(A) Summary of all claimed indirect expense rates, including pool amount, base amount, and calculated indirect rate.

(B) *General and Administrative expenses (final indirect cost pool)*. Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts).

(B-1) Laboratory/Plant Directed Research & Development (LDRD or PDRD) expenses (final indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts).

(C) *Overhead expenses (final indirect cost pool)*. Schedule of claimed

expenses by element of cost as identified in accounting records (Chart of Accounts) for each final indirect cost pool.

(D) *Intermediate indirect cost pool**s***. Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts) and expense reallocation to final indirect cost pools.

(E) Claimed allocation bases, by element of cost, used to distribute indirect costs.

(F) RESERVED.

(G) Reconciliation of books of account (*i.e.*, General Ledger) and claimed direct costs by major cost element.

(H) Schedule of direct costs by contract, or by a lower level of detail (e.g. Budget & Reporting (B&R) code) if required by the contracting officer, and subcontract and indirect expense applied at claimed rates, as well as a subsidiary schedule of Government participation percentages in each of the allocation base amounts.

(I) Schedule of cumulative direct and indirect costs claimed at the same level of detail as provided in Schedule H.

(J) *Subcontract information*. Listing of subcontracts awarded to companies for which the contractor is the prime or upper-tier contractor (include prime and subcontract numbers; subcontract value and award type; amount claimed during the fiscal year; and the subcontractor's name, address, and point of contact information). The schedule should contain a sufficient level of detail to enable a reconciliation of actual subcontract costs incurred from Schedule J to those claimed on Schedule H (i.e. B&R level).

(K) Summary of each time-and-materials and labor-hour contract information, including labor categories, labor rates, hours, and amounts; direct materials; other direct costs; and, indirect expense applied at claimed rates.

(L) Reconciliation of total payroll per IRS form 941 to total labor costs distribution.

(M) Listing of decisions/agreements/approvals and description of accounting/organizational changes.

(N) Certificate of final indirect costs (see 52.242-4, Certification of Final Indirect Costs).

(O) Contract closing information for contracts and SPPs physically completed in this fiscal year (include contract and SPP number, period of performance, contract

ceiling amounts, contract fee computations, level of effort, and indicate if the contract is ready to close).

(iv) The following supplemental information is not required to determine if a proposal is adequate, but may be required during the audit process:

(A) Comparative analysis of indirect expense pools detailed by account to prior fiscal year and budgetary data.

(B) General organizational information and limitation on allowability of compensation for certain contractor personnel including Executive Compensation Form. See 31.205-6(p). Additional salary reference information is available at https://www.whitehouse.gov/wp-content/uploads/2017/11/ContractorCompensationCapContractsAwardedBeforeJune24.pdf and https://www.whitehouse.gov/wp-content/uploads/2017/11/ContractorCompensationCapContractsAwardedafterJune24.pdf.

(C) Identification of prime contracts under which the contractor performs as asubcontractor.

(D) Description of accounting system (excludes contractors required to submit a CAS Disclosure Statement or contractors where the description of the accounting system has not changedfrom the previous year's submission).

(E) Procedures for identifying and excluding unallowable costs from the costs claimed and billed (excludes contractors where the procedures have not changed from the previous year's submission).

(F) Certified financial statements and other financial data (*e.g.*, trial balance, compilation, review, *etc.*).

(G) Management letter from outside CPAs concerning any internal control weaknesses.

(H) Actions that have been and/or will be implemented to correct the weaknesses described in the management letter from subparagraph (G) of this section.

(I) List of all internal audit reports issued since the last disclosure of internal audit reports to the Government.

(J) Annual internal audit plan of scheduled audits to be performed in the fiscal year when the final indirect cost rate submission is made.

(K) Federal and State income tax returns.

(L) Securities and Exchange Commission 10-K annual report.

(M) Minutes from board of directors meetings.

(N) Listing of delay claims and termination claims submitted which contain costs relating to the subject fiscal year.

(O) Contract briefings, which generally include a synopsis of all pertinent contract provisions, such as: contract type, contract amount, product or service(s) to be provided, contract performance period, rate ceilings, advance approval requirements, pre-contract cost allowability limitations, and billing limitations.

(v) The Contractor shall update the cost incurred to reflect the final settled rates and update the schedule of cumulative direct and indirect costs claimed and billed, as required in paragraph (d)(2)(iii)(I) of this section, within 60 days after settlement of final indirect cost rates. The Contracting Officer shall advise the contractor if additional adjustments or repayments are necessary.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed- upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates. The completion invoice or voucher shall include settled subcontract amounts and rates. The prime contractor is responsible for settling subcontractor amounts and rates included in the completion invoice or voucher and providing status of subcontractor audits to the contracting officer upon request.

(6)

(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may-

(A) Determine the amounts due to the Contractor under the contract; and

(B) Record this determination in a unilateral modification to the contract.

(ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) *Forward pricing rates*. Until final annual indirect cost rates are established for any period, the contractor shall use the forward pricing rates established by the Contracting Officer or by an authorized representative, subject to adjustment when the final rates are established. These forward pricing rates-

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) *Quick-closeout procedures*. Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) *Audit*. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices, payments, vouchers, or statements of cost audited. Any payment may be-

(1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs; or

(2) Adjusted for prior overpayments or underpayments.

(h) *Final payment*.

The Government will make final payment to the Contractor per DEAR 970.5232-2, "Payments and Advances."

(End of clause)

I-35 FAR 52.217-8 OPTION TO EXTEND SERVICES (NOV 1999) *[MOD 0236]*

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within *30 days of contract expiration*.

(End of clause)

I-36 RESERVED *[MODs 0238, 0240, 0242, 0291]*

I-37 FAR 52.242-4 CERTIFICATION OF FINAL INDIRECT COSTS (JAN 1997) *[MOD 0255]*

(a) The Contractor shall-

(1) Certify any proposal to establish or modify final indirect cost rates;

(2) Use the format in paragraph (c) of this clause to certify; and

(3) Have the certificate signed by an individual of the Contractor's organization at a level no lower than a vice president or chief financial officer of the business segment of the Contractor that submits the proposal.

(b) Failure by the Contractor to submit a signed certificate, as described in this clause, may result in final indirect costs at rates unilaterally established by the Contracting Officer.

(c) The certificate of final indirect costs shall read as follows:

Certificate of Final Indirect Costs

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal (identify proposal and date) to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and

2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: _____

Signature: _____

Name of Certifying Official: _____

Title: _____

Date of Execution: _____

(End of clause)

I-38 DEAR 970.5203-1 MANAGEMENT CONTROLS (JUN 2007) [*MOD 0255*]

(a)

(1) The Contractor shall be responsible for maintaining, as an integral part of its organization, effective systems of management controls for both administrative and programmatic functions. Management controls comprise the plan of organization, methods, and procedures adopted by management to reasonably ensure that: the mission and functions assigned to the Contractor are properly executed; efficient and effective operations are promoted including consideration of outsourcing of functions; resources are safeguarded against waste, loss, mismanagement, unauthorized use, or misappropriation; all encumbrances and costs that are incurred under the contract and fees that are earned are in compliance with applicable clauses and other current terms, conditions, and intended purposes; all collections accruing to the Contractor in connection with the work under this contract, expenditures, and all other transactions and assets are properly recorded, managed, and reported; and financial, statistical, and other reports necessary to maintain accountability and managerial control are accurate, reliable, and timely.

(2) The systems of controls employed by the Contractor shall be documented and satisfactory to DOE.

(3) Such systems shall be an integral part of the Contractor's management functions, including defining specific roles and responsibilities for each level of management, and holding employees accountable for the adequacy of the management systems and controls in their areas of assigned responsibility.

(4) The Contractor shall, as part of the internal audit program required elsewhere in this contract, periodically review the management systems and controls employed in programs and administrative areas to ensure that they are adequate to provide reasonable assurance that the objectives of the systems are being accomplished and that these systems and controls are working effectively. Annually, or at other intervals directed by the Contracting Officer, the Contractor shall supply to the Contracting Officer copies of the reports reflecting the status of recommendations resulting from management audits performed by its internal audit activity and any other audit organization. This requirement may be satisfied in part by the reports required under paragraph (i) of 48 CFR 970.5232-3, Accounts, Records, and Inspection.

(b) The Contractor shall be responsible for maintaining, as a part of its operational responsibilities, a baseline quality assurance program that implements documented performance, quality standards, and control and assessment techniques.

(End of clause)

I-39 FAR 52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENT (APR 2008)
[MOD 0334]

This is a rated order certified for national defense, emergency preparedness, and energy program use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

(End of clause)

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Appendix C Transition Plan *[MOD 0015]*

Appendix D Merger Transformation Plan *[MODs 0050, 0121, 0133, 0165]*

Appendix E Performance Guarantee Agreement(s) *[MODs 0015, 0090, 0165]*

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Appendix G Uranium Processing Facility (UPF) Project Management Plan *[MODs 0015, 0075, 0201]*

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Appendix K Small Business Subcontracting Plan *[MODs 0045, 0052, 0084, 0157, 0191, 0303, 0356]*

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Appendix O Program Management and Cost Reports

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SECTION J

APPENDIX A

STATEMENT OF WORK

SECTION J
APPENDIX A
STATEMENT OF WORK

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CHAPTER I. Objectives, Scope, and Requirements

1.0 OBJECTIVE

The objective of this Contract is to obtain nuclear production services to support National Nuclear Security Administration (NNSA) and broader national security requirements. This objective includes obtaining services to meet the production requirements derived from the nuclear weapons stockpile plan updated and released by the President of the United States annually. The Contractor shall be fully responsible for high-hazard enriched uranium, special nuclear material (SNM), high-explosive and nuclear weapon assembly/disassembly functions to support NNSA Stockpile Stewardship and Management Program activities directed by the Office of Defense Programs (DP). The Contractor shall function as the single integrating contractor for scheduling parts and performing material logistics within the Nuclear Security Enterprise (NSE). The Contractor shall provide a single management structure and interface to the Government for integrating production across the NSE.

NNSA tritium supply management functions are also included in Contractor responsibilities if this option is exercised. Furthermore, the Contractor shall directly support the NNSA Offices of Naval Reactors and Nuclear Non-Proliferation in addition to other Department of Energy (DOE) offices. Beyond DOE/NNSA, the Contractor shall provide unique services to ongoing missions for other Government agencies or privately owned organizations on a non-interference basis with the DOE/NNSA workload.

This statement of work includes two Contract Line Item Numbers (CLINs). CLIN 0001 covers the management and operation of Pantex and Y-12 for the initial five-year base with sub-CLINs for three option periods, transition of SRTO, and inclusion of SRTO, respectively. CLIN 0002 covers the Uranium Processing Facility (UPF) at Y-12.

In addition to achieving Presidential goals outlined in the April 2010 Nuclear Posture Review, this Contract will fully support the DOE and NNSA Strategic Plans and will strengthen NNSA's vision for a fully integrated and interdependent Nuclear Security Enterprise (NSE), consisting of all eight NNSA sites, by achieving the following four specific objectives:

(i) Improving performance in the completion of national security missions for nuclear production operations;

(ii) Transitioning and merging operations at geographically-dispersed centers of excellence for: nuclear weapon assembly/disassembly; enriched uranium; SNM; high-explosive production; and, tritium supply management under a single Contract;

(iii) Reducing the cost of performing work; and

(iv) Requiring actions that support operation as an integrated DOE/NNSA enterprise.

This Contract does not affect the physical location of nuclear production center of excellence designations at the respective sites.

2.0 BACKGROUND

2.1 The NNSA Mission

The NNSA, established by Congress per the NNSA Act (Title XXXII of the National Defense Authorization Act for Fiscal Year 2000, Public Law 106-65) as a semiautonomous element within DOE, is responsible for the management and security of the nation's nuclear weapons, non-proliferation, and naval propulsion programs. It also responds to nuclear and radiological emergencies in the United States and abroad, and NNSA federal agents provide safe and secure transportation of nuclear weapons, components and special nuclear materials.

2.2 The NNSA Organization

NNSA relies on Management and Operating (M&O) Contractors to manage day-to-day site operations and to adhere to its policies when operating its laboratories, production plants, and other facilities in the NSE. Together, the M&O Contractors implement NNSA's all-encompassing Stockpile Stewardship Program managed by Defense Programs that includes operations associated with surveillance, assessment, maintenance, refurbishment, manufacture and dismantlement of the nuclear weapons stockpile as well as research, development and certification efforts.

2.3 Becoming an Enterprise

Overall, the NNSA needs to carry out its mission within research, development, and manufacturing organizations that are safe, secure, integrated, efficient, and cost effective. Work must be aligned with requirements received from key customers in a manner that strives to retain the intellectual excellence and key infrastructure capabilities demanded by national interests.

Throughout the 1990s, the DOE/NNSA took steps to consolidate to its current configuration of three national laboratories, four production plants, and a nuclear test site. In an evaluation of the NSE completed in October 2008, NNSA published a Supplemental Programmatic Environmental Impact Statement (SPEIS) that analyzed alternatives for transforming the complex into a smaller more efficient enterprise that responds to changing national security challenges and ensures the long-term safety, security, and reliability of the nuclear weapons stockpile. Two Records of Decision (RODs) informed by this SPEIS were published in December 2008.

While the RODs look at transforming the physical infrastructure, other initiatives have been undertaken to improve management and business practices. Two councils have been formed: one among the Contractor senior management and another among the federal site managers. The main function of these councils is to improve the integration and communication within the enterprise. Also, governance reform is an NNSA management initiative that focuses on developing a partnering relationship between the federal team and the supporting M&O Contractors.

2.4 Location of Performance

The three sites under this Contract are:

2.4.1 Y-12 National Security Complex (Y-12): Y-12 is a Government-owned site located in Oak Ridge, Tennessee, on approximately 800 acres within the 34,000 acre Oak Ridge Reservation. The NNSA facilities at Y-12 consist of over 350 buildings with approximately 5,800,000 gross square feet (gsf). Another 1,730,000 gsf are facilities that are the responsibility of the Office of Science, Office of Nuclear Energy, or the Office of Environmental Management.

2.4.2 Pantex Plant (PX): PX is a Government-owned site located near Amarillo, Texas, on approximately 10,500 acres at Pantex Plant proper and 1,100 acres of detached property called Pantex Lake, approximately 2.5 miles northeast of the main plant site. In addition, PX leases 5,800 acres south of the plant as a security buffer and owns approximately 1,526 acres of land east of FM2373 that provides an additional security buffer and is being used primarily for agriculture and location of the Pantex Wind Farm. The total acreage under Federal control is approximately 17,400 acres. The facilities on the site consist of 638 buildings comprising approximately 3,110,000 gsf.

2.4.3 Savannah River Tritium Operations (SRTO): SRTO is within the Savannah River Site (SRS), which is a Government-owned Environmental Management site located in south-central South Carolina and occupies approximately 198,420 acres in Aiken, Barnwell, and Allendale Counties. SRS is approximately 15 miles southeast of Augusta, Georgia, and 12 miles south of Aiken, South Carolina. The NNSA SRTO consists of approximately twenty-nine acres centrally located within the site. The SRTO facility is comprised of 32 buildings consisting of approximately 377,809 gsf.

3.0 SCOPE

This Contract is comprehensive with an objective to perform all necessary operational, coordination, and management functions at Y-12, PX, and SRTO (should this option be exercised) required to support NNSA and broader national security missions assigned to these sites. This includes but is not limited to all ongoing missions and functions, as well as those that may be assigned during the term of the Contract. It further includes all infrastructure management and maintenance; information technology; human resource management including critical skills recruitment and retention; environmental management; health, safety and security systems; and purchasing and other administrative systems.

In the execution of this Contract, and particularly program integration, the Contractor shall meet rigorous quality and reliability standards essential for the U.S. nuclear deterrent; maintain sufficient production capacity and produce at rates defined in planning documents; and implement flexible production management and execution processes to accommodate a dynamic national security environment. The Contractor shall balance risk management and cost reduction initiatives to provide increased value to the Government. This applies both internally to this Contract and to improving the overall cost efficiency of the NSE.

The Contractor shall be fully responsible and accountable for the safe and secure accomplishment of all work, whether performed by its own personnel or team members, including subcontractors. The Contractor shall be responsible for planning and coordinating production schedules; integrating, managing and executing the programs; supporting and executing large and small projects; and completing operations and other activities as described in this Statement of Work.

3.1 Mission

The Contractor shall safely and securely complete all mission responsibilities and improve performance in the completion of national security missions for nuclear production operations and all other national security missions, as applicable. NNSA has a Work Breakdown Structure (WBS) that is discussed further in Section J, Appendix F, Work Breakdown Structure. At a minimum, the Contractor shall:

(i) Sustain the necessary workforce and exercise essential capabilities for: nuclear weapon assembly/disassembly, enriched uranium and lithium, SNM, high-explosive production, and tritium supply management centers of excellence;

(ii) Maintain authorization basis for high-hazard operations;

(iii) Operate high-hazard chemical processing facilities and systems within approved authorization basis;

(iv) Assure the availability of core capabilities, regardless of stockpile size;

(v) Implement and oversee the nuclear explosive and weapons surety program to include nuclear weapon/nuclear explosive safety, security and use control;

(vi) Sustain and modernize the infrastructure;

(vii) Interface with and support other contractors performing work at any of the sites;

(viii) Balance available resources to meet mission requirements and infrastructure sustainment while maintaining safe, secure, environmentally compliant and responsive operations; and

(ix) Effectively partner with other Contractors within the NSE to manage the master schedule for all production activities and be responsible for the execution of uranium, SNM, high explosives, nuclear weapons assembly/ disassembly, dismantlement, and surveillance functions in support of the Stockpile Stewardship Program. In performing this responsibility, issues between the NSE contractors will be brought to Defense Programs management for resolution.

3.2 Merging of Operations

The Contractor shall merge operations, in accordance with Section J, Appendix D, Merger Transformation Plan, at geographically-dispersed centers of excellence for: nuclear weapon assembly/disassembly; enriched uranium; SNM; high-explosive production; and, tritium supply management (if exercised by option) under a single Contract. At a minimum, the Merger Transformation Plan shall describe how the Contractor will:

(i) Manage merger of operations without negatively impacting mission;

(ii) Ensure critical skills necessary to maintain capabilities;

(iii) Identify and streamline redundant technical and business operations across the sites under this Contract;

(iv) Incorporate governance (Section J, Appendix A, Chapter I, 4.4); and

(v) Maintain relationships and regulatory interfaces, and assume responsibility for permits with local, State and Federal entities, other DOE offices, and stakeholders.

3.3 Scope and Financial Management

The Contractor shall support the DOE/NNSA Planning, Programming, Budgeting and Evaluation (PPBE) process. In supporting PPBE, the Contractor shall provide financial data for Government systems, such as:

- Standard Accounting and Reporting System (STARS)
  - STARS information is provided under the Institutional Cost Reporting Categories
- iMANAGE
- Enterprise Portfolio Analysis Tool (EPAT)
  - The EPAT information shall be collected in accordance with the Work Breakdown Structure (WBS) (see Section J, Appendix F)
- Facilities Information Management System (FIMS)

The Contractor shall maintain financial cost reporting systems to provide detailed cost reports for cost, scope, and schedule for direct and indirect costs for all work performed under this Contract. The cost reports shall include labor costs, leave/hours not worked, staff augmentation, fringe, pension, legacy, materials, services-subcontractors, direct service centers, other expenses, capital, labor category, and full-time equivalent (FTE) resource usage for all direct and indirect costs and utilize cost benefit analyses to determine the appropriate level of support functions and risks. The Contractor shall provide NNSA transparency into those financial cost reporting systems and shall provide routine reports to allow NNSA visibility into program and cost management supporting reports to external sources (see Section J, Appendix O). The Contractor's financial cost reporting systems shall support the DOE STARS, iMANAGE, EPAT and support systems, such as FIMS, as well as other Government systems as they are developed and implemented.

The NNSA will provide the initial cost information, FTE data and scope framework on the effective date of the Contract. The Contractor shall develop a baseline for all Contractor direct programs and indirect support costs in accordance with DOE institutional cost reporting categories as found in Section J, Appendix M, Institutional Cost Reporting, and utilize the WBS reporting structure for further program granularity, as applicable and as it continues to develop within NNSA. The baseline shall include cost, scope of work, and schedule with a change control process. Baselines will be utilized for implementing the cost reduction features under this Contract. The baseline will be reviewed and approved annually by the Contracting Officer.

The Contractor shall have in place tools to: 1) manage mission and indirect changes in scope, cost, and schedule; 2) compare actual costs of work performed (ACWP) to budgeted costs of work performed (BCWP); 3) accurately forecast estimated costs to complete (ETC) and estimated total costs at completion (EAC); and 4) document deviations from the baselines described above in this paragraph and, on a timely basis, notify the Contracting Officer of such changes. The Contractor shall not make retroactive changes to records pertaining to work performed that will change previously- reported costs, except for correction of errors and routine accounting adjustments and not make retroactive changes for funding fluctuations or revisions in EAC.

3.4 Enterprise Success

The Contractor shall participate with NNSA and other NNSA M&O Contractors as part of an "enterprise organization" to evaluate, plan, develop and implement strategic initiative activities that optimize mission and business operations across the NSE. The goal of these initiatives is to increase the efficiency and cost effectiveness from a business and mission perspective, to include:

- Reduced operational costs enterprise-wide,
- More consistent work practices and operational processes,
- Better pricing, better products, more timely delivery,
- Reduced administrative costs and lead times for both the Contractor and the DOE/NNSA,
- Greater standardization and interchangeability across the NSE; and
- Increased awards to small business entities.

NNSA expects these and other initiatives to result in a shift to an enterprise focus, based on the Contractor who possesses the most expertise and experience level within the NSE.

The Contractor shall cooperate with NNSA and NSE Contractors in identifying potential cross-NSE benefits to be derived from implementing common practices and goals across the NSE in the areas of mission workload and enterprise functional support.

The Contractor and NNSA shall establish performance incentives with performance measures and targets for strategic efforts that result in enterprise performance improvement overall for the Government.

4.0 Administrative and Technical Requirements

4.1 Integrated Safety Management (ISM), Integrated Safeguards and Security Management (ISSM), Environmental Management System (EMS), and Quality Assurance Systems (QAS)

The Contractor shall ensure that ISM, ISSM, EMS, and QAS are integrated into its operations and that its Contractor Assurance System (CAS) reflects Contractor integrated performance related to these systems.

4.2 Work Authorization (WA) System

Specific work requirements under this Contract will be established annually and updated as needed by the Contracting Officer in accordance with the applicable DOE Order and the Contract's Section I Clause entitled "DEAR 970.5211-1, Work Authorization."

4.3 Information Technology (IT)

The NNSA seeks to optimize the efficiency of the NSE through the NNSA Network Vision (2NV) that seeks to consolidate IT infrastructure/services and eliminate redundant systems, to increase efficiency through mobility and cloud computing, and to improve business processes to better integrate across sites. To accomplish these goals, the Contractor must evaluate feasibility of removing redundant systems by completing a careful examination of existing systems and architecture across the sites to develop a single, integrated "to-be" vision that utilizes the best available technologies and management practices from both Government and commercial sources to improve and achieve performance excellence, including fiscal efficiency. With respect to production, these efforts shall include, but are not limited to, the implementation of multi-site, integrated manufacturing based information systems that support weapons production, special nuclear material (SNM) accountability, production scheduling and flow, surveillance, weapon retirement, process knowledge archiving, and preservation of production and certification records. Desktop and back-office computing capabilities should be compatible with those used by NNSA entities. Back-office functions shall include, but not be limited to, payroll, finance, project management, human resources, etc.

The Contractor shall deliver, within 180 days of the Base Term, a draft "to-be" architecture and information technology transition plan that integrates production and business systems at Pantex and Y-12, and further considers integration of SRTO as directed by the Government in a manner that is consistent with the overall enterprise and yields the best value to the Government. This plan shall present a cost and schedule baseline against which performance can be measured. Specifically, the plan must address network consolidation to generate cost efficiencies, mobility to replace manual processes and facilitate a mobile work environment, data center consolidation to generate energy savings, and cloud computing to improve business agility. In addition, the plan must consider (where feasible) replacement of legacy applications with Commercial Off the Shelf (COTS) systems, elimination of redundant IT systems, and collection of data in accordance with DOE or industry standards to improve NSE interoperability.

If the Contractor plans to offer an IT deliverable that is not Internet Protocol version 6 (IPv6) and Homeland Security Presidential Directive (HSPD)-12 compatible, the Contractor agrees to (1) obtain the Contracting Officer's approval before starting work on the deliverable; and (2) provide a migration path and firm commitment to upgrade to IPv6 and HSPD-12 compatibility for all application and product features.

The Contractor, prior to using any Contractor-owned software and systems where reimbursement is expected, shall request approval by the Contracting Officer. The Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any Contractor-owned software and systems brought in and used. Said license shall be limited to the continued nuclear production work by successor Contractors.

4.4 Governance

Governance is the system of management and controls exercised in the stewardship of the organization. The governance system shall be consistent with NNSA governance documents (DOE Order 226.1B included in Section J, Appendix N, List of Applicable Directives).

Contractors must self govern and deliver mission results in a safe and secure manner. The Contractor shall implement governance through a collaborative partnership with NNSA to form the self-governance framework by which the mission is accomplished in an effective and efficient manner. The governance framework invokes trust and confidence between parties, defines expectations and authorities and verifies performance by utilizing objectives, requirements, assessments, metrics and rewards. The Contractor will focus on NNSA transformation activities that maximize the ability to complete the mission in a way that ensures effective and efficient stewardship of the taxpayers' money. The Contractor shall streamline operations and reduce costs to maximize mission accomplishment through a common understanding of expectations and performance accountability, supported by a strong Contractor Assurance System (CAS). The Contractor shall have a CAS as a subordinate and supporting feature of Governance as described in 4.4.1 below.

4.4.1 Contractor Assurance System: The Contractor shall have a Contractor designed and utilized system to manage performance consistent with Contract requirements. The CAS shall be a primary tool used by Contractor management to measure and improve performance, ensure that mission objectives and Contract requirements are met; ensure that workers, the public and the environment are protected; and ensure that operations, facilities, and business systems are efficiently and effectively operated and maintained. An effective CAS integrates Contractor management, supports corporate parent governance and facilitates Government oversight systems as described in DOE Order 226.1B. NNSA oversight shall not be relied upon by the Contractor as the primary feedback in assessing its performance. The Contractor is fully accountable for performing its own assessment of these areas.

4.4.2 Standards and Directives Reform: The Contractor shall submit a plan within 180 days after start of Base Term that identifies standards (e.g., ISO 9001, 14001, 18001, or other international or industry standards) to be utilized to replace other DOE requirements and provide the ability for the Contractor to operate with industry best practices. The plan shall describe how quickly the Contractor will achieve ISO certifications or other recommended standards but commit to completion no later than by the end of the second year of the Base Term. In addition, the Contractor, as part of its governance, shall continuously evaluate and examine DOE directives, orders, and requirements to propose needed exemptions or modifications to allow the Contractor to operate in the most effective and efficient manner and to assist in delivering cost savings to the Government.

4.4.3 Parent Organization(s): The Contractor, through its Parent Organizations, shall develop, at a date agreed upon by the Contracting Officer and the Contractor, a multi-year strategy and oversight plan that details (1) its planned efforts and expected accomplishments by year, to continuously improve its management and performance, and (2) the planned efforts and contributions of its Parent Organizations. The Contractor shall also provide an Oversight Plan from its Governing Board (if applicable), which shall be submitted prior to each fiscal year for Contracting Officer approval. The Plan shall identify the Board's annual activities to: (1) monitor the Contractor's performance of Statement of Work activities including CAS performance and (2) to assist the Contractor in meeting NNSA's mission and operational requirements. Elements of the plan may be incorporated into the Contractor's Performance Evaluation Plan. The utilization of Parent Organization experts via the Board's activities, which are defined herein as employees of Parent Organization(s), is encouraged for the purpose of achieving improvement in management and performance to resolve deficiencies identified through the Board's oversight or unusual issues encountered in site operations. The Board shall conduct periodic briefings throughout the annual rating period to NNSA management relating their oversight activities against the Plan and effects on production plant performance.

The Contractor is encouraged to identify opportunities for the use of parent corporate systems and corporate home and branch office personnel for site operations for the purposes of monitoring plant performance, assisting the plant in meeting its mission and operational requirements, streamlining the Contractor's administrative and business systems, improving performance, and adapting private sector expertise to plant issues.

The term "systems" means any discrete process, procedure, program, document or instrument where cost of use under this Contract can be identified and quantified to the parent corporation.

The Contractor, prior to using any parent corporate systems or home and branch office personnel where reimbursement is expected, shall submit a plan for review and approval by the Contracting Officer. In reviewing the plan, the Contracting Officer will consider the extent to which each separate element of

the plan is more efficient and represents an overall cost savings to the Government versus existing site systems, assists the parent corporation or the Contractor in monitoring plant performance and in meeting mission and operational requirements or brings value-added expertise to plant issues. The Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any Contractor-owned software and systems brought in and used. Said license shall be limited to the continued nuclear production work by successor Contractors.

4.4.4 Performance Evaluation Plan: The Contractor shall participate in the formulation of Performance Evaluation Plans (PEP) that covers a defined period of time. The PEP shall include performance objectives, goals and measures.

4.4.5 Performance Metrics: The Contractor shall propose a list of performance metrics that provide Contractor and NNSA management an overall assessment of the "health of the operation" quickly and accurately. Once established, the metrics shall be part of the CAS and be provided with transparency to aid in the identification and understanding of significant performance issues.

4.5 Contractor Human Resources

The Contractor shall have the flexibility to restructure the workforce and make changes to employee benefits throughout the term of the Contract, as may be permitted by this Contract and applicable law, to maximize efficiencies. The Contractor shall be responsible for identification and maintenance of critical skills and for the employment of all professional, technical, skilled, and other personnel engaged and to be engaged by the Contractor in the work hereunder, and for the training of personnel, including apprentice programs. Persons employed by the Contractor or its subcontractors or consultants shall not be deemed employees of the Government. The Contractor shall follow the Human Resources (HR) requirements pertaining to workforce transition and management in accordance with Section J, Appendix A, Chapter III, Human Resources.

4.6 Environmental Permits and Applications

In recognition of the Contractor's responsibility to operate in compliance with all applicable environmental requirements, the Contractor is responsible for signing environmental permits and applications as "operator or co-operator" at the sites.

(i) If bonds, insurance, or administrative fees are required as a condition for such permits, such costs shall be allowable. In the event that such costs are determined by NNSA to be excessive or unreasonable, NNSA shall provide the regulatory agency with an acceptable form of financial responsibility.

(ii) The Contractor shall accept, in its own name, service of notices of violations or alleged violations (NOVs/NOAVs) issued by Federal or State regulators to the Contractor resulting from the Contractor's performance of work under this Contract, without regard to liability. The allowability of the costs associated with fines and penalties shall be subject to clauses of this Contract. The Contractor shall notify the Contracting Officer promptly when it receives service from the regulators of NOVs/NOAVs and fines and penalties. Nothing stated above shall affect the

Contractor's right to challenge or contest the applicability or validity of such NOVs/NOAVs and fines and penalties.

(iii) In the event of termination or expiration of this Contract, NNSA will require the new Contractor to accept transfer of all environmental permits executed by the Contractor.

(iv) For SRTO, if this option is exercised, the Contractor shall be responsible for becoming a party to all regulatory compliance agreements, and licenses and permits issued by any federal, state or local regulatory agency associated with the Statement of Work under this Contract, including those previously executed.

(v) When providing NNSA with documents that are to be signed or co-signed by NNSA, the Contractor will accompany such document with a certification statement, signed by the appropriate Contractor corporate officer, attesting to NNSA that the document has been prepared in accordance with all applicable requirements and the information is, to the best of its knowledge and belief, true, accurate, and complete.

4.7 Defense Nuclear Facilities Safety Board and Other Government Agencies Support and Liaison

The Contractor shall support NNSA in interfacing with various Government agencies such as the Defense Nuclear Facilities Safety Board (DNFSB), Department of Defense and state regulatory agencies.

The Contractor shall conduct activities in accordance with the applicable DOE directive and guidance on interface with the DNFSB. The Contractor shall be accountable for ensuring that subcontractors at any tier adhere to these requirements.

4.8 Interfaces with Other Site Users

Within the three sites, there are multiple Contractors responsible for a variety of broad-based programs. Within 90 calendar days after the start of transition for the Base Term and if the option for SRTO is exercised, within 60 calendar days after the start of transition, the Contractor shall submit, for NNSA approval, an Interface Management Plan (IMP) for the affected sites to identify and manage site interfaces/services between DOE, NNSA, DOE/NNSA Contractors, and tenant entities engaged in onsite activities. The IMP should identify any costs related to other site users. The IMP shall also address security in accordance with Section J, Appendix A, Chapter II, 1.2.5, Defense Nuclear Security. The Contractor IMP(s) will become part of the Contract as Section J, Appendix H, Interface Management Plan. For the sites, services that require interface agreements shall be provided in accordance with existing or newly developed memoranda of understanding or other appropriate agreements. The Contractor will provide input to the Nuclear Production Site Office regarding effective support toward common site security and operational objectives. The Government will not consider such input if one contractor has any potential Organizational Conflict of Interest with the other contractor.

4.9 Privacy Act System of Records

The Contractor shall design, develop, and maintain a system of records on individuals to accomplish an agency function in accordance with the Contract's Section I Clause entitled "FAR 52.224-2, Privacy Act." The applicable systems of records are available on the Federal Register. A list of applicable records will be finalized after contract award.

4.10 Cost Reduction

The Contractor shall submit a Cost Reduction Proposal (CRP) in accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction".

CHAPTER II. Work Scope Structure

1.0 PROGRAMS

The Contactor shall support the following program activities:

1.1 Defense Programs

1.1.1 Directed Stockpile Work (DSW): The DSW program is responsible for maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile without using underground testing. To meet this goal, DSW provides nuclear warheads and bombs to the Department of Defense (DoD) in accordance with the President's Nuclear Weapons Stockpile Plan. The Plan directs the number and type of weapons that the United States needs to maintain to ensure a credible deterrent. DSW includes weapons and production support programs. These programs are performed to achieve stockpile evaluation, stockpile maintenance, and nuclear weapons assembly and disassembly objectives in accordance with DOE/NNSA requirements plan**.**

Within DSW, the types of activities include, but are not limited to, the assembly and disassembly of nuclear weapons and individual components in support of Life Extension Programs, the Stockpile Evaluation Program, and dismantlement goals and objectives. In addition, it includes the disposition of weapon components, maintaining a weapons quality control program, providing production information systems, and providing laboratory analytical services. Also, each site performs research, development, testing and engineering work for the current and future production missions in support of the weapon laboratories. At Pantex, the high hazard fabrication of high explosive materials, interim storage of SNM and components, and nuclear weapons assembly/disassembly are key deliverables; Y-12 provides the Canned Subassemblies and Savannah River provides tritium supply management services and loaded reservoirs for the weapons. All operations shall meet DOE/NNSA requirements for nuclear facility safety, criticality safety, and nuclear explosive safety. Projected work scope for the NSE within this program includes, but is not limited to:

(i) W76 and B61 Life Extension Program (LEP) deliverables;

(ii) All other LEP deliverables;

(iii) 800-1200 weapon systems equivalent unit operations per year for assembly/disassembly for: (1) surveillance, LEP and dismantlement; (2) Joint Test Assemblies (JTA); and (3) Limited Life Components (LLCs). These operations are on the B53, B61, W62, W69, W70, W71, W76, W78, W80, B83, W84, and W88 systems; (The W87 LEP (Assembly/ Disassembly) is the standard equivalent unit and is equal to 1.0 equivalent unit. All other weapons program deliverables are defined as either 0.xx or 1.yy equivalent units based on the number of hours of production time and whether it is greater or less than that standard.)

(iv) Meet annual Defense Program deliverables at Y-12 inclusive of assemblies, subassemblies, piece parts, phases of a dismantlement or surveillance, container refurbishments, and shipments from Area 5;

(v) If SRTO option is included in Contract, 1100-2100 reservoir equivalents per year for loading, 100-170 reservoir equivalents per year for unloading, and 240-350 per year reservoir equivalents for Gas Transfer System Surveillance;

(vi) Maintain and exercise production process capabilities such as casting, rolling, forming, and machining;

(vii) Support of multi-program initiatives including Product Realization Integrated Digital Enterprise and Requirements Modernization and Integration;

(viii) Storage and disposition of excess legacy components from weapons activities;

(ix) Support expense projects, such as the Manufacturing Operations Management at Y-12 (CD-4) and the Operations System Design and Integration at Pantex (CD-4).

1.1.2 Campaigns: Campaigns are focused efforts to address critical capabilities needed to achieve key future program objectives. Campaigns are technically challenging, multi-function efforts that have definitive milestones and specific work plans. For this Contract these campaigns include, but are not limited to, the Engineering and Readiness Campaigns. Projected work scope within this program includes, but is not limited to:

(i) Support advanced technology projects in support of the NSE such as lithium technologies, microwave deployment, wet chemistry replacement, lithium oxide replacement, high explosives development;

(ii) If SRTO option is included in Contract, maintain operational capabilities to perform one or more tritium extractions per year for Tennessee Valley Authority supplied target rods; and

(iii) Support transition of designated Campaign activities to DSW.

1.1.3 Readiness in Technical Base and Facilities (RTBF): RTBF provides the physical and operational infrastructure required to conduct the scientific, technical, and manufacturing activities of the Stockpile Stewardship Program. The RTBF mission is to ensure that the sites comprising the NSE are implementing the technologies and methods necessary to make construction, operation, energy efficiency and maintenance of production facilities safe, secure, reliable and cost effective and that the right facilities and infrastructure are in place to manufacture and certify the 21st century nuclear weapons stockpile.

The key areas within RTBF include, but are not limited to, construction, construction support and contractor integration, management of containers (onsite and offsite), operations of facilities, management and storage of materials (plutonium, highly-enriched uranium (HEU), Tritium, SNM and other materials), Material Recycle and Recovery, and Program Readiness. Projected work scope within this program includes, but is not limited to:

(i) Maintain annual mission critical facility availability;

(ii) Maintain mission critical facilities and mission dependent, not critical facilities;

(iii) Project Management

A. The Contractor shall perform design and construction activities for all projects under $20M (Expense and General Plant Projects). New projects over $20M, including Expense and Line Item, may be included if determined by the NNSA to be in the Government's best interest.

B. The Contractor shall perform initial project development (for all projects regardless of dollar value), project management, design, and construction management activities in accordance with required DOE Orders.

C. The Contractor shall recognize existing Construction Labor Agreements and shall require subcontractors engaged in construction on the construction project to recognize the Construction Labor Agreement.

D. The Contractor shall maintain project baselines, develop Documented Safety Analysis, define quality requirements, ensure National Environmental Policy Act compliance, provide quarterly reports to the NNSA for assigned projects, support external reviews, and meet other requirements as directed by the Contracting Officer.

E. Line Item Projects covered by this Contract include, but are not limited to:

- Uranium Processing Facility (UPF), see Chapter IV of this SOW
  - CLIN 0001: Contractor retains Design Authority
  - CLIN 0002: Contractor acts as Design Agent

- High Explosive Pressing Facility (HEPF) (CD-4 thru 2016)
  - Contractor provides design support for the US Army Corps of Engineers
  - Contractor supports construction and completes start-up and commissioning

- Nuclear Facility Risk Reduction Project (Critical Decision (CD) 3B in 2012 and CD-4 in 2016)
  - Contractor completes design
  - Contractor completes construction, start-up, and commissioning
- Security Improvement Project (CD-4 in 2014)
  - Contractor completes construction, start-up, and commissioning

(iv) Manage and disposition waste generated at the sites;

(v) Operate enriched uranium recycle and recovery systems at Y-12 to include chemical processing, metal working, purification, accountability, storage, disposition, breaking, casting, high precision machining, oxide conversion, metal production, and canning;

(vi) Operate lithium recycle and recovery systems at Y-12;

(vii) Reduce the backlog of Highly Enriched Uranium (HEU) material at Y-12 in order to fully execute Material Disposition Plan and manage newly generated low-equity material by processing to a form suitable for long-term storage or discard of material which is below the Economic Discharge Limit;

(viii) Safe and secure storage, management, and disposition of nuclear and non- nuclear materials (weapon assemblies, pit staging, war reserve storage, enriched uranium, Li6, heavy water, plutonium, and satisfy NNSA and other DOE customer material requirements (also, if SRTO option is included in the Contract, tritium and He3);

(ix) Support DOE enterprise-wide nuclear materials management and storage initiatives including, supporting the development and update of material management plans, supporting the DOE Nuclear Materials Management Team, and performing special studies related to uranium, lithium, heavy water as requested;

(x) Deliver containers according to Shipment Schedules in support of DSW and other missions; and

(xi) Support footprint reduction efforts at the sites.

(xii) Operate the Wind Energy System (Pantex Wind Farm) as part of the Pantex Renewable Energy Project (PREP).

1.1.4 Secure Transportation: This is the mechanism for the movement of weapons and materials between sites. Key facilities are located in Amarillo, Texas and Oak Ridge, Tennessee. Support under this Contract shall include maintenance of facilities, vehicle maintenance and support, and other activities.

1.2 Other NNSA Work

1.2.1 Infrastructure and Environment: These programs include Site Stewardship, Long-term Environmental Stewardship, NNSA recapitalization programs, Nuclear Materials Management Team, and energy savings initiatives required by the DOE. Projected work scope for the NSE within this program includes, but is not limited to:

(i) Overseeing roofing projects under Enterprise-wide Roofing Asset Management Program;

(ii) Completing recapitalization and deferred maintenance projects; and

(iii) Completing High Pressure Fire Loop at Pantex (CD-4).

1.2.2 Nuclear Counterterrorism Incident Response and Other Nuclear Emergency Response Programs: The Nuclear Counterterrorism Incident Response (NCTIR) program ensures that capabilities are in place to respond to any DOE/NNSA facility emergency, nuclear, or radiological incident within the United States or abroad, and to provide operational planning and training to counter both domestic and international nuclear terrorism and assure that DOE can carry out its mission-essential functions. This includes DOE's radiological assistance program, NNSA's worldwide weapons accident response management, and other investigations or advisory groups.

1.2.3 Nuclear Non-Proliferation: Defense Nuclear Nonproliferation programs work closely with a wide range of international partners, key U.S. federal agencies, the U.S. national laboratories, and the private sector to detect, secure, and dispose of dangerous nuclear and radiological material, and related weapons of mass destruction technology and expertise. Projected work scope for the NSE within this program includes, but is not limited to:

(i) Integrate, plan and execute disposition projects for DOE complex-wide inventories of surplus and excess nuclear material;

(ii) Complete 100% of scheduled deliveries of excess enriched uranium to customers;

(iii) Provide effective and rapid response to emergent non-proliferation and international security requirements;

(iv) Partner with DOE/NNSA laboratories to leverage resources and expertise in support of nuclear non-proliferation goals and objectives;

(v) Support of global nonproliferation activities; and

(vi) Meet 100% of scheduled deliveries for the supply of nuclear materials to foreign and domestic research and isotope production reactors and other Y- 12 customers.

1.2.4 Naval Propulsion: Naval Reactors programs require production and delivery of feedstock supporting their nuclear fuel program. Projected work scope for the NSE within this program includes, but is not limited to:

(i) Complete 100% of scheduled deliveries of feedstock to NA-30; and

(ii) Complete annual evaluation, maintain, and submit 20-year plan for NA-30 feedstock requirements.

1.2.5 Defense Nuclear Security (DNS): The DNS program protects NNSA interests from theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts which may cause unacceptable adverse impacts on national security, program continuity, security of employees, and the public. As required by the security assets at each site, the Contractor shall provide a highly trained, competent, qualified, and certified Protective Force (PF) to protect nuclear explosives, SNM, classified matter, and other NNSA property. The actual PF staffing is determined by the posts and patrols and their required hours of operation. The Contractor is expected to provide staffing to meet requirements in a cost-effective manner. These responsibilities include planning, integration, management, and execution of all program elements **excluding** drug and alcohol testing for all site personnel.

PF operations are included in the scope of this Contract for Pantex and Y-12 and not SRTO. The Government will furnish PF operations at the SRTO. In accordance with the Contract's Section H, H-9, Limitation on Protective Force Subcontracting, the Contractor shall not subcontract protective force services and responsibilities.

The Contractor shall interface, as directed by the CO, with other contractors that perform safeguards and security work within the Oak Ridge Reservation and the Savannah River Site. In addition, at Pantex and Y-12 the scope entails coordination with local law enforcement agencies as well as management and operation of all shared security support services (e.g., Technical Surveillance Countermeasures and pre-event discovery operations) and facilities (inclusive of the Central Training Facility) in Oak Ridge, as well as implementation of the "Graded Security Protection Policy." The Contractor shall establish a formal training program which ensures appropriate personnel are competently trained, and fully qualified to perform the tasks within their assigned responsibilities under both normal and emergency conditions. This responsibility also includes the DOE standardized security training of DOE-Oak Ridge PF personnel at the Central Training Facility. For other PF contractors within the ORR, the Contractor shall develop and conduct site-specific training curricula through coordination with the affected contractors.

1.2.6 Cyber Security: The NNSA Cyber Security program ensures that sufficient information technology and information management security safeguards are implemented throughout the NSE to adequately protect information assets. The overarching goal is to implement a flexible, comprehensive, full life-cycle, risk-based cyber security program including a cyber security architecture aligned with the NNSA enterprise architecture and plans of the NNSA Office of the Chief Information Officer. The Contractor shall allow full, unfettered access to security

logs and cyber security sensor data to the Joint Cyber Coordination Center (JC3) to provide cyber security situational awareness for the NSE. The Contractor shall implement a cyber security baseline program and provide adequate performance metrics to generate a risk-based budget process for the NSE.

1.3 Strategic Partnership Projects/Other Reimbursable Work

This includes the management and execution of other assigned programs related to national security missions for DOE, other Government agencies, or privately owned organizations on a non-interference basis with NNSA work as approved by the Contracting Officer.

2.0 FUNCTIONAL SUPPORT

The Contractor shall provide:

2.1 General Support:

General management and program management functions including executive direction, human resources, financial support services, procurement, legal services, central administrative services, program and project controls, information outreach, information services, and other general support functions.

In addition, provide legacy health and welfare benefits administration regarding former Contractor employees at Portsmouth Gaseous Diffusion Plant, located near Piketon, Ohio and Paducah Gaseous Diffusion Plant, located approximately 15 miles west of Paducah, Kentucky. Provide legacy pension, health and welfare benefits administration regarding former Contractor employees at K-25, located five miles west of Y-12.

2.2 Mission Support

Mission support functions including environmental, safety and health, facilities management, maintenance, utilities, safeguards and security, logistics support, quality assurance, and laboratory/technical support.

In addition, provide services and support, as directed by NNSA, in the following areas:

(i) Office of Secure Transportation facilities;

(ii) DOE Central Scrap Management Office;

(iii) DOE Business Center for Precious Metals Sales and Recovery;

(iv) DOE Tri-Laboratory Office; and

(v) Sandia-operated Weapons Evaluation Test Laboratory (WETL) operations.

23 Site Specific Support

Site specific support includes management and incentive fee administration, state and local taxes, and direction of a DOE-approved Plant-Directed Research, Development and Demonstration (PDRD) Program that supports science-based manufacturing related to the NNSA weapons mission, and encourages advanced research, development, and demonstration work to enhance the science and technology capabilities and core competencies required to fulfill the mission of nuclear production.

CHAPTER III. Human Resources

1.0 DEFINITIONS

Incumbent Employees are the employees in good standing of B&W Technical Services Pantex, LLC and B&W Technical Services Y-12, LLC under Contracts DE-AC04-00AL66620 and DE-AC05-00OR22800, and the Protective Services subcontract DE-AC55-07NA25750 between G4S Government Solutions, Inc., d/b/a WSI-Oak Ridge and B&W Technical Services Y-12, LLC, respectively as of the effective date of the Contract, and Tritium Operations and select employees of the Savannah River Nuclear Solutions, LLC Contract DE-AC09-08SR22470 as of the date of SRTO option exercise.

Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor upon the beginning of the Base Term at Y-12 and PX and new hires other than Incumbent Employees at SRS who perform Tritium Operations work under this Contract.

2.0 WORKFORCE TRANSITION

The following are requirements the Contractor shall carry out during the Transition Term. After the effective date of the Contract, the Contractor may propose alternate due dates for the deliverables described in 2.1, Staffing Plan, 2.2, Pay & Benefits, 2.3, Incumbent Employees Right of First Refusal, and 2.4, Advance Understanding on Human Resources. The Contracting Officer may approve such changes provided the deliverable dates make transition more effective and efficient for both parties.

2.1 Staffing Plan

No later than 30 calendar days after the effective date of the Contract the Contractor shall provide NNSA its plan for achieving the right workforce size and skills mix and an estimate of the number of employees at each site to whom they expect to make employment offers.

2.2 Pay & Benefits

Consistent with the requirements identified in 3.0 COMPENSATION and 4.0 BENEFITS below, the Contractor shall develop and submit for NNSA approval an integrated pay and benefits program to cover non-bargaining unit Incumbent and non-bargaining unit Non- Incumbent Employees at PX & Y12. It is expected that the benefits program will be developed utilizing best practice and market based design concepts to achieve maximum efficiency and lower cost through such features as vendor and benefit plan consolidation. If the SRTO option is exercised, the Contractor shall provide information regarding their plans to incorporate SRTO employees into their integrated pay and benefits program.

2.2.1 No later than 45 calendar days after the effective date of the Contract, the Contractor shall submit for NNSA approval all proposed benefit plans. The submission shall include all plan documents that will describe benefits provided to employees at Y12 and PX including existing plans to which the Contractor becomes a sponsor at the beginning of the Base Term as well as newly proposed plans.

The submission shall also include an "Employee Benefits Value Study" comparing the proposed benefit plans for non-bargaining unit Incumbent Employees and non-bargaining unit Non-Incumbent Employees using the NNSA Consolidated Employee Benefit Value Study methodologies and comparator companies, to be provided by the Contracting Officer, described in 4.1.5 below. Contracting Officer's approval of the Contractor's benefits program will be contingent on the net benefit value not exceeding the comparator group by more than five percent.

2.2.2 No later than 120 calendar days after the effective date of the Contract, the Contractor shall submit a plan with a timeline for implementing an integrated Compensation system that meets the criteria defined 3.0 COMPENSATION below.

2.3 Incumbent Employees Right of First Refusal

The Contractor shall use the Transition Term to make hiring decisions. The Contractor shall give a right of first refusal of employment for every position identified by the Contractor as necessary for completing the requirements of the contract (other than positions occupied by Key Personnel and managers who directly reported to them) under this Contract to Incumbent Employees as defined in *1.0 Definitions* who meet the qualifications for a particular position. The Contractor shall provide a written offer of employment that identifies the individual's pay and a summary of the benefits package that will be available to the individual. Incumbent employees offered the same position shall be provided their same base salary/pay rate in existence (provided by the incumbent Contractor) at the time the offer is made. Incumbent employees offered a different position than the position they are performing at the time the offer is made shall be provided pay commensurate with the position. Such offer shall be provided to employees as soon as possible, however, no later than no later than 90 calendar days after the effective date of the Contract.

2.4 Advance Understanding on Human Resources

The Contractor shall submit no later than 120 calendar days after the effective date of the Contract a proposed Human Resources Plan. The Plan shall describe the Contractor's proposed Human Resources policies, programs and related expenses that will have cost implications under the Contract. The plan should provide information showing that these proposed policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce. This document will serve as the starting point for negotiation with which NNSA and the Contractor will reach an advance understanding on Contractor Human Resources costs. The advance understanding enables both the Contractor and the NNSA to determine allocability, allowability and reasonableness of costs prior to incurrence, thereby avoiding (to the maximum extent possible) subsequent disallowance and disputes; provide appropriate and reasonable compensation levels to recruit and retain Contractor employees to meet NNSA mission objectives; and assure prudent expenditure of public funds. The language identified in *3.0 Compensation, 4.0 Benefits, 5.0 Labor Relations, and 6.0 Workforce Planning* below will serve as the governing text for development of the advance understanding. The Personnel Appendix will include but is not limited to such topics as compensation, welfare benefits, labor relations, retirement plans, severance schedules, holidays,

vacation, etc., or any other human resource costs the Contractor or NNSA deems necessary. It is understood that any advance understanding will be appended to the Contract as the Personnel Appendix (Section J, Appendix I, Personnel Appendix).

3.0 COMPENSATION

The Contractor shall recruit and retain a highly skilled, motivated, and experienced workforce in a cost effective manner capable of carrying out the technical and other requirements set forth elsewhere in this Statement of Work.

3.1 Total Compensation System

Consistent with the requirement in 2.2, Pay and Benefits, the Contractor shall establish an integrated, market based pay and benefit program. The objective is to provide a level of total compensation which, within available funds, attracts, motivates and retains a highly competent workforce and maintains a competitive position in the applicable labor markets.

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system including a compensation system Self-Assessment Plan consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services" (Total Compensation System). In addition, the Contractor's total compensation system shall include the following components:

(i) Philosophy and strategy for all pay delivery programs.

(ii) System for establishing a job worth hierarchy.

(iii) Method for relating internal job worth hierarchy to external market.

(iv) System that includes a documented method and process for evaluating individual job performance and that bases individual and/or group compensation decisions on individual performance and Contractor performance as appropriate. In addition, the system must show the link to the annual evaluation of Contractor performance for individual compensation actions as appropriate.

(v) Method for planning and monitoring the expenditure of funds.

(vi) System for internal controls and self-assessment.

(vii) System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be pro-rated according to the amount of time the employee spent performing work under this Contract.

3.2 Cash Compensation

The Contractor shall submit the following to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract.

3.2.1 Additional Compensation System Self-Assessment Data

Any additional compensation system self-assessment data requested by the Contracting Officer that may be needed to validate and approve the total compensation system.

3.2.2 Proposed Major Compensation Program Design Changes

Any proposed major compensation program design changes prior to implementation.

3.2.3 Annual Compensation Increase Plan (CIP)

(i) The CIP shall be provided to the Contracting Officer on October 1 annually and shall include the following components and data:

(1) Comparison of average pay to market average pay;
(2) Information regarding surveys used for comparison;
(3) Aging factors used for escalating survey data and supporting information;
(4) Projection of escalation in the market and supporting information;
(5) Information to support proposed structure adjustments, if any;
(6) Analysis to support special adjustments;
(7) Funding requests and supporting analysis for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement;

(a) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous plan year.
(b) All pay actions granted under the CIP are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year-end.
(c) Specific payroll groups (e.g., exempt, nonexempt, key personnel) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer.
(d) The Contracting Officer may unilaterally adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).
(e) The Contractor is authorized to make minor shifts (up to 10%) in funds between payroll groups without prior Contracting Officer approval. The Contractor shall notify the Contracting Officer at the time funds are shifted.

(8) A discussion of the impact of budget and business constraints on the CIP amount; and
(9) Discussion of relevant factors other than market average pay (e.g., turnover and offer-to-acceptance statistics, collective bargaining provisions, geographic considerations, total compensation).

(ii)) Contracting Officer approval is not required for the CIP under the following circumstances: 1) the CIP submission is equal to or less than

the salary increase projection (e.g. World at Work projection); and (2) NNSA does not notify the Contractor of any questions or concerns that may negate cost allowability. NNSA will provide notification within the two weeks following the Contractors' submission (date will be identified in the annual NNSA CIP guidance).

(iii) Contracting Officer approval is required for the CIP under the following circumstances (1) the CIP percent exceeds the professionally recognized salary budget survey's salary increase projection (e.g. World at Work projection provided in the annual NNSA CIP guidance); (2) the Contractor's position to market warrants less than the survey's salary increase projection such that application of the CIP at the full increase projection, would result in the overall position to be above market; and/or (3) the Contractor's overall position to market is above market.

(iv) Contracting Officer approval is not required for any salary structure adjustments that do not exceed the professionally recognized salary budget survey's mean structure adjustments projected for the CIP year (e.g., World at Work projection provided in the annual NNSA CIP guidance).

3.2.4 Compensation Actions for All Key Personnel

The compensation actions for all Key Personnel shall be submitted for approval upon replacement. The top contractor official (i.e., Nuclear Production Contract Plant Manager or equivalent) salary actions including merit pay increases shall be submitted annually to the Contracting Officer for approval. The top contractor official's approved reimbursed base salary will serve as the maximum allowable salary reimbursement under the Contract. With these compensation actions, the Contractor shall provide supporting justification related to internal and external equity, individual performance and the Application for Contractor Compensation Approval Form (DOE 3220.5).

3.2.5 Incentive Compensation Plan

For any proposed establishment of an Incentive Compensation Plan (variable pay plan/pay-at-risk), documentation shall be provided to the Contracting Officer no later than 60 days prior to proposed implementation. Such proposal must contain:

(i) The design of the Incentive Compensation Plan, the funding methodology, and linkage to Contract performance measures;
(ii) Requirement for approval of Incentive Compensation Plan design changes by the Contracting Officer prior to implementation;
(iii) Requirement for an annual approval, prior to the performance period, of the total dollar amount of the pool, the eligible positions, and linkage to Contract performance goals;
(iv) Requirement for policy that provides a specific passover rate, i.e., percent of participants who will not receive an incentive;
(v) Requirement for an annual summary report on distributions made under an Incentive Compensation Plan; and

(vi) For any Executive Incentive Plans, a requirement for pay at risk.

3.2.6 Assignments Outside of Normal Duty Station

Assignments of employees outside of their normal duty station for which the NNSA/DOE will reimburse all or some of their compensation or other expenses shall be in accordance with NNSA Policy Letter, NAP-31, titled NNSA M&O Off-Site Extended Duty Assignments.

3.2.7 Contractor's Total Compensation System

The Contractor's Total Compensation System (e.g., to be set forth in Section J, Appendix I, Personnel Appendix), shall meet the tests of allowability in FAR 31.205-6 and DEAR 970.3102-05-6, be fully documented, be consistently applied, and be acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be approved by the Contracting Officer. Any changes to the Total Compensation System shall be submitted to the Contracting Officer 60 days prior to implementation. Changes that impact current or future costs shall be approved by the Contracting Officer prior to implementation.

3.2.8 Human Resources Plan

As a part of the Human Resources Plan the Contractor shall submit a severance plan. The severance plan must include the notification period, pay-in-lieu policy, and the severance schedule. Supporting documentation must include information regarding standards from nationally recognized sources and or comparator firms (including corporate parents).

Severance Pay is not payable to an employee under this Contract if the employee:

(i) Voluntarily separates, resigns or retires from employment, except that in the event the Contractor conducts an NNSA approved voluntary separation program;

(ii) Is offered employment with a successor/replacement Contractor;

(iii) Is offered employment with a parent or affiliated company; and/or

(iv) Is discharged for cause.

(v) Occupies one of the Key Positions identified in Section J, Appendix J.

Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement Contract.

3.3 **Reports *and Information: Compensation***

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

(i) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure, showing actual against approved amounts, no later than 30 days after Compensation Increase Plan expenditures.

(ii) Other compensation reports as requested by the Contracting Officer.

4.0 BENEFITS

4.1 Assumption of Existing Pension Plan

The Contractor will be required to become a sponsor of the existing pension plans and other Post Retirement Benefit Plans (PRB), as applicable, with responsibility for management and administration of the plans, including maintaining the qualified status of those plans. The Contractor shall carry over the length of service credit and leave balances for Incumbent Employees accrued as of the date of the Base Term.

4.1.1 No presumption of allowability will exist when the Contractor implements a new benefit plan or makes changes to existing benefit plans until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans which will result in additional costs. Justification for new benefit plans and changes to plan design or funding methodology which will increase costs must include cost impact, and the basis of determining cost. The Contractor shall notify the Contracting Officer prior to implementation of benefit plans that are either new or first time for the site, are a significant impact to employees, or which may set a precedent for the DOE/NNSA contractor system.

4.1.2 Cost reimbursement for pension and other benefit programs sponsored by the Contractor for non-bargaining and bargaining unit employees will be based on the "Employee Benefits Value Study" as described in 4.1.5.1 and 4.1.5.2 and an "Employee Benefits Cost Study Comparison" as described in 4.1.5.3 below.

4.1.3 The Contractor shall notify the Contracting Officer prior to terminating any benefit plan during the term of the Contract.

4.1.4 Service Credit for cost reimbursement for employee benefits to include PRB eligibility will be determined in accordance with NNSA Supplemental Directive NA SD O 350.1, M&O Contractor Service Credit Recognition.

4.1.5 Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall participate in and/or submit the studies required in paragraphs 4.1.5.1, 4.1.5.2, and 4.1.5.3 below. The studies shall be used by the Contractor in calculating the cost or value of benefits under existing benefit plans. In addition, the Contractor shall submit updated values to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan that will increase costs.

4.1.5.1 The NNSA Consolidated Employee Benefits Value Study for non- bargaining unit employees, shall be submitted by July 31st every two years or as directed by the Contracting Officer. An Employee Benefits Value Study (Ben Val) is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to employees measured against the RV of benefit

programs offered by comparator companies. The Contractor will utilize the comparator companies previously utilized in the last NNSA Consolidated Benefit Value Study. If any of the comparator companies no longer participate, the Contractor will recommend replacement companies for approval by the Contracting Officer. The Value Study shall include major non-statutory benefits plans offered by the contractor, including qualified defined benefit (DB) plans and defined contribution (DC) retirement and capital accumulation plans, and death, disability, health, and paid time-off welfare benefit programs. Any M&O Contractor defined benefit pension plans and post-retirement benefits plans, closed to new entrants, do not have to be included in the Ben Val measurement.

4.1.5.2 An Employee Benefits Value Study for bargaining unit employees shall be completed 6 months prior to the end of the bargaining unit Contract. The Benefits Value Study must include at least 15 comparator companies approved by the Contracting Officer. The Value Study must include major non-statutory benefit plans offered by the Contractor, including qualified DB & DC retirement and capital accumulation plans and death, disability, health, and paid time off welfare benefit programs Any M&O Contractor defined benefit pension plans and post-retirement benefits plans, closed to new entrants, do not have to be included in the Ben Val measurement..

4.1.5.3 An Employee Benefits Cost Study Comparison for non-bargaining and bargaining unit employees, shall be submitted by July 31st annually. The cost study must utilize a professionally recognized measure approved by the Contracting Officer that analyzes the Contractor's employee benefits cost for employees as a percent of payroll and compares it with the cost as a percent of payroll including geographic factor adjustments, reported by the U. S. Labor's Bureau of Labor Statistics or other Contracting Officer approved comparator group or broad based national benefit cost survey. Any M&O Contractor defined benefit pension plans and post-retirement benefit plans, closed to new entrants, do not have to be included in the Benefit Cost study measurement.

4.1.5.4 When the weighted average net benefit value for non-bargaining employees exceeds the comparator group by more than five percent, the Contractor may be required to provide, for Contracting Officer approval, a Corrective Action Plan describing the specific actions they plan to take to get to the 105% within a specified period of time.

4.1.5.5 When the benefit costs as a percent of payroll exceeds the comparator group by more than five percent, when and if required by the Contracting Officer, the Contractor shall submit an analysis of the specific plan costs that result in or contribute to the

percent of payroll exceeding the costs of the comparator group and may be required to submit a corrective action plan and specified period of time if directed by the Contracting Officer.

4.1.5.6 Within two years, or longer period as agreed to between the Contractor and the Contracting Officer, of the Contracting Officer's acceptance of the Contractor's corrective action plan, the Contractor may be required to align employee benefit programs with the benefit value and the cost as a percent of payroll in accordance with its corrective action plan.

4.1.6 In the event the NNSA determines it is appropriate to spin off any portion of any defined benefit plan in order to address benefits for employees who used to perform work under the former M&O Contract, but who subsequently perform work under a different NNSA contract, the Contractor shall negotiate in good faith regarding the disposition of pension plan assets and liabilities consistent with direction from the Contracting Officer.

4.2 Reports and Information: Benefits

The Contractor shall provide to the Contracting Officer:

(i) Annually, the Report of Contractor Expenditures for Employee Supplemental Compensation (DOE F 3220.8); and

(ii) Quarterly, input requested benefits data into DOE's iBenefits pension and benefits management system.

4.3 Workers' Compensation

4.3.1 The Contractor, unless workers' compensation coverage is provided through a state funded arrangement or a corporate benefits program, shall submit to the Contracting Officer for approval all new workers' compensation policies and all initial proposals for self-insurance. Additionally, Contractors shall provide copies to the Contracting Officer of all renewal policies for workers' compensation.

4.3.2 Workers' compensation loss income benefit payments when supplemented by other programs (such as salary continuation, short term disability) are to be administered so that the total benefit payments from all sources shall not exceed 100% of employee's net pay.

4.4 Pension Plans

4.4.1 For cost allocability and reimbursement purposes, any defined benefit (DB) or defined contribution (DC) pension plans established by the Contractor and any DB or DC plans for which the Contractor assumes sponsorship upon the start of the Base Term, shall be maintained consistent with the requirements of the Internal Revenue Code (IRC),

Employee Retirement Income Security Act of 1974 (ERISA) as amended and any other applicable laws.

4.4.2 Any pension plan maintained by the Contractor, for which NNSA reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan which provides credit for service not performed under a DOE cost- reimbursement Contract. Each Contractor pension plan shall be submitted to an annual, full-scope audit by an outside independent organization and the resulting report, submitted to NNSA, must provide the accounting details specified in ERISA Sections 103 and 104.

4.4.3 The Contractor will be reimbursed for pension contributions in the amounts necessary to ensure that the plans are funded to meet the annual minimum required contribution under ERISA, as amended. If a minimum contribution payment is required to avoid benefit restrictions to Plan participants, the Contractor shall notify the Contracting Officer at least sixty (60) days prior to the date the payment is due. Reimbursement above the annual ERISA required minimum contribution will require prior approval of the Contracting Officer. The Contracting Officer will take into consideration all pre-funding balances and funding standard carryover balances when evaluating whether to approve reimbursement above the minimum required contribution. Timing of a Contractor's contributions to a plan must enable a plan's actuary to certify that a plan is adequately funded at the beginning of a plan year.

4.4.4 At least 60 days prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required in 4.4.4.1 and 4.4.4.2 below, as applicable, to the Contracting Officer for approval or disapproval and a determination as to whether the costs to be incurred are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

4.4.4.1 For proposed changes to DB and DC plans that are not mandated by law the Contractor shall provide the following to the Contracting Officer:

(i) A clean copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout;

(ii) An analysis of the impact of any proposed changes on actuarial accrued liabilities and an analysis of relative benefit value and a cost study index;

(iii) Except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from legal counsel for purposes of compliance with all legal requirements applicable to private sector DB pension plans;

(iv) The Summary Plan Description; and

(v) Any such additional information as requested by the Contracting Officer.

When changes to DB and/or DC plans are required by law, the Contractor must provide a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout no later than 30 days before the new amendment is to take effect.

4.4.4.2 The Contractor shall obtain the advance written approval of the Contracting Officer for any required pension plan changes that are not required by law and which may increase costs or liabilities, and any proposed special programs (including, but not limited to, plan-loan features, employee contribution refunds, or ancillary benefits) and shall provide a justification to the Contracting Officer. The justification must: (a) demonstrate the effect of the plan changes on the contract net benefit value or percent of payroll benefit costs, (b) provide the dollar estimate of savings or costs, and (c) provide the basis of determining the estimated savings or costs.

4.4.5 When operations at a designated NNSA facility are terminated and no further work is to occur under the prime Contract, the following apply.

4.4.5.1 No further benefits for service shall accrue;

4.4.5.2 The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the NNSA Contract;

4.4.5.3 The Contractor shall base its DB pension liabilities attributable to NNSA Contract work on the market value of annuities or dispose of such liabilities through a competitive purchase of annuities. The Contractor, as pension plan sponsor, must adhere to Department of Labor guidance set forth at 29 CFR 2509.95-1 regarding selection of an annuity provider for the purpose of benefit distributions from a DB pension plan;

4.4.5.4 Assets shall be determined using the “accrual-basis market value” on the date of termination of operations; and

4.4.5.5 NNSA and the Contractor shall establish an effective date for spinoff or plan termination. On the same day as the Contractor notifies the IRS of the spinoff or plan termination, all NNSA assets assigned to a spun-off or terminating plan shall be placed in a high-yield, fixed-income portfolio until the successor trustee, or an insurance company, is able to assume stewardship

of those assets. The portfolio shall be rated no lower than Standard & Poor's "AA."

4.4.6 Terminating Plans.

4.4.6.1 NNSA Contractors shall not terminate any pension plan (commingled or site specific) without notifying the Department at least 60 days prior to the scheduled date of plan termination.

4.4.6.2 To the extent possible, the Contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market. The Contractor, as pension plan sponsor, must adhere to Department of Labor guidance set forth at 29 CFR 2509.95-1 regarding selection of an annuity provider for the purpose of benefit distributions from a DB pension plan The Contractor shall apply the assumptions and termination procedures of the Pension Benefit Guaranty Corporation.

4.4.6.3 Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.

4.4.6.4 If ERISA or IRC rules prevent a full transfer of excess NNSA reimbursed assets from the terminated plan, the Contractor shall pay any deficiency directly to NNSA according to a schedule of payments to be negotiated by the parties.

4.4.6.5 On the same day as the Contractor notifies the IRS of the plan termination, all NNSA assets will be placed in a high-yield, fixed-income portfolio until full disposition of the terminating plan's liabilities. The portfolio shall be rated no lower than Standard & Poor's "AA."

4.4.6.6 NNSA liability to a commingled pension plan shall not exceed that portion which corresponds to participants' service accrued for their work under an NNSA Contract. The NNSA shall have no other liability to the plan, to the plan sponsor, or to the plan participants.

4.4.6.7 After all liabilities of the plan are satisfied, the Contractor shall return to NNSA an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to NNSA. Such amount and such earnings shall be subject to NNSA audit. To affect the purposes of this paragraph, NNSA and the Contractor may stipulate to a schedule of payments.

4.4.7 Post Contract Responsibilities for Pension and Other Benefit Plans

4.4.7.1 If this Contract expires or terminates and NNSA has awarded a Contract under which the new Contractor becomes a sponsor and assumes responsibility for management and administration of the pension or other benefit plans covering active or retired Contractor employees with respect to service, the Contractor shall cooperate and transfer to the new Contractor its responsibility for sponsorship, management and administration of the plans consistent with direction from the Contracting Officer. If a comingled plan is involved, the Contractor shall:

(i) Spin off the NNSA portion of any commingled plan that provides benefits for employees working at the NNSA facility into a separate plan. The new plan shall provide benefits similar to those provided by the commingled plan and shall carry with it the NNSA assets on an accrual basis market value, including NNSA assets that have accrued in excess of NNSA liabilities.

(ii) Bargain in good faith with NNSA or the successor Contractor to determine the assumptions and methods for establishing the liabilities involved in a spinoff. NNSA and the Contractor(s) shall establish an effective date of spinoff. On the same day as the Contractor notifies the IRS of the spinoff, all NNSA assets assigned to a spun-off plan shall be placed in a high-yield, fixed income portfolio until the successor trustee is able to assume stewardship of those assets. The portfolio shall be rated no lower than Standard & Poor's “AA.”

4.4.7.2 If this Contract expires or terminates and NNSA has not awarded a Contract to a new Contractor under which the new Contractor becomes a sponsor and assumes responsibility for management and administration of the Plans, or if the Contracting Officer determines that the scope of work under the Contract has been completed (any one such event may be deemed by the Contracting Officer to be “Contract Completion” for purposes of this paragraph), whichever is earlier, and notwithstanding any other obligations and requirements concerning expiration or termination elsewhere in this Contract, the following actions shall occur regarding the Contractor’s obligations regarding the Plans at the time of Contract Completion:

(i) Subject to paragraph 4.4.7.2(ii) below, and notwithstanding any legal obligations independent of the Contract the Contractor may have regarding responsibilities for sponsorship, management, and

administration of the Plans, the Contractor shall remain the sponsor of the Plans, in accordance with applicable legal requirements.

(ii) The parties shall exercise their best efforts to reach agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion. However, if the parties have not reached agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion, unless and until such agreement is reached, the Contractor shall comply with written direction from the Contracting Officer regarding the Contractor's responsibilities for continued provision of pension and welfare benefits under the Plans, including but not limited to continued sponsorship of the Plans, in accordance with applicable legal requirements. To the extent that the Contractor incurs costs in implementing direction from the Contracting Officer, the Contractor's costs will be reimbursed pursuant to applicable Contract provisions.

4.4.8 Reports and Information - Retirement Plans: For each DB and DC pension plan as applicable or portion of a pension plan for which NNSA reimburses costs, the Contractor shall provide the Contracting Officer with the following information within nine months of the last day of the current pension plan year except for the Pension Management Plan which shall be submitted by January 30 of each year.

4.4.8.1 The annual actuarial valuation report for each NNSA-reimbursed pension plan. When a pension plan is commingled, the Contractor shall submit separate reports for NNSA's portion and the plan total.

4.4.8.2 Copies of IRS Forms 5500 with Schedules for each NNSA-funded pension plan, no later than that submitted to the IRS.

4.4.8.3 Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

4.4.8.4 The annual Pension Management Plan as described below (4.5 Pension Management Plan) by January 30 of each year.

4.5 Pension Management Plan

4.5.1 The Contractor shall submit a plan for management and administration (Pension Management Plan) for each defined benefit pension plan (Plan) for which the Department has a continuing obligation to reimburse pension contributions that is consistent with the terms of this Contract and which

includes projected assets, projected liabilities, and estimated contributions and the prior year's actuarial valuation report annually on January 30.

4.5.2 The Pension Management Plan shall include:

4.5.2.1 The Contractor's best projection of the contributions which it will be legally obligated to make to the Plan(s), beginning with the required contributions for the current fiscal year, based on the latest actuarial valuation, and continuing for the following four fiscal years. This estimate will be based upon compliance with all applicable legal requirements relating to the determination of contributions and upon the assumptions set out in the Plan document(s). All contribution calculations should reflect payments made during DOE fiscal years, beginning Oct 1, through September 30, and the next succeeding six fiscal years. Please include a summary of the key actuarial assumptions used to determine the required contribution. All projections must be based upon the most recently available asset information for the Plan. For example, for a Plan with a July 1 valuation date, project the July 1, value of assets for the current year to be used in the calculation from the actual January 1, value of assets from the same year.

4.5.2.2 If the actuarial valuation submitted pursuant to the annual Pension Management Plan update indicates that the sponsor of the Plan must impose benefit restrictions, the Contractor shall provide the following information:

(i) The type of benefit restriction that will take place;

(ii) The number of Contractor employees that potentially could be impacted and the nature of the restriction (e.g., financial impact) by imposition of the required benefit restriction;

(iii) The amount of money that would need to be contributed to the Plan and the timing of such contribution to avoid legally required benefit restrictions; and

(iv) A recommendation regarding whether the additional money should be contributed to the Plan and the rationale for the recommendation.

4.5.2.3 A detailed discussion of how the Contractor intends to manage the Plan(s) to maximize contribution predictability (i.e. forecasting accuracy) and to contain current and future costs, to include the rationale for selection of all Plan assumptions (i.e., actuarial experience studies) that determine the required contributions and which impact the level and predictability of required contributions. As part of the Contractor's plan to

maximize contribution predictability, the Contractor may propose funding strategies other than ERISA minimums for NNSA's consideration and approval. The Contractor shall submit the following for NNSA to consider in deciding on the alternate funding strategy:

(i) Identify whether the current year additional amount can be absorbed within the current operating budget;

(ii) Discuss the integration of Plan's funding strategy and investment strategy taking into consideration the plan's demographic profile, liability duration, and impact of current year funding decisions on future year contribution requirements;

(iii) Discuss the strategy for achieving fully funded status and protecting against erosion of the Plan's funded status;

(iv) Discuss the strategy for specifically protecting any pension funding contributions reimbursed in excess of the minimum required contribution against the risk of significant loss; and

(v) Discuss whether the plan has a prefunding or funding standard carryover balance that could be used to improve the plan's AFTAP without requiring additional contributions. Provide a rationale regarding the recommended use of the available balance(s).

4.5.2.4 An assessment to evaluate the effectiveness of the Contractor's Plan(s) investment management/results. The assessment must include at a minimum: a review and analysis of Plan investment objectives and asset allocations; results of the most recent asset liability study and investment policy review; the strategies employed to achieve the Plan's investment objectives; and the methods used to monitor execution of those strategies and the achievement of the investment objectives. The Contractor shall also identify its plans, if any, for revising any aspect of its Pension Management Plan based on the results of the review.

Within thirty (30) days after the date of the submission, appropriate Contractor representatives will meet with the Contracting Officer and other DOE/NNSA representatives to discuss the Contractor's proposed Pension Management Plan. The Contractor must be prepared to discuss any differences between the prior fiscal year's projected pension contributions for future fiscal years and the most recent projected pension contributions for future fiscal years and the rationale for any such discrepancies. In addition, discrepancies between the

actual contributions made for the most recent fiscal year preceding the meeting and the projected contributions for that fiscal year and the rationale for any such discrepancies, and funding strategies for the Plan will be discussed.

5.0 LABOR RELATIONS

(i) The Contractor shall comply with the National Labor Relations Act, DEAR Subpart 970.2201, and all applicable Federal and State labor laws.

(ii) No later than 60 days before the commencement of bargaining, the Contractor shall provide to the Contracting Officer in writing 1) the proposed changes to the current collective bargaining agreement that will increase costs over and above the current collective bargaining agreement costs; 2) the proposed savings to the current collective bargaining agreement; 3) the dollar amounts associated with the proposed changes to reflect a total cost and total net cost (or savings). Cost increase figures shall be provided for each of the following distinct categories: wages, health benefits, retirement benefits and all other benefits that increase costs under the existing collective bargaining agreement. Upon the request of the Contracting Officer, provide the full financial impact of the proposed wage increases, including but not limited to the impact on overtime and shift differential costs and an estimate of overhead burden increases that will occur as a result of the proposed wage and benefit increases over the life of the collective bargaining agreement.

The Contractor will provide regional wage survey information, Benefits Value study information, Cost Study information and any other information to support the collective bargaining cost figures set forth in the Contractor's proposal no later than 60 days prior to the commencement of bargaining.

Prior to the commencement of collective bargaining, the Contracting Officer will communicate to the Contractor the total approved, aggregate cost ceiling for the cost associated with the successor collective bargaining agreement. Once the aggregate threshold is determined and provided to the Contractor, no further approval of economic parameters is required unless 1) the changes would exceed the aggregate figure or 2) the changes proposed are contrary to Departmental policy or written instructions. To the extent the Contractor assumes savings from new negotiation positions not set forth in the Contractor's initial cost proposal, the Contractor must notify the Contracting Officer of such assumed savings by no later than 15 days after the collective bargaining agreement is executed.

(iii) The Contractor shall provide an electronic copy of the bargaining agreement to the Contracting Officer 30 days after formal ratification. The Contractor shall provide the "Report of Settlement" 30 days after formal ratification using the Work Force Information System (WFIS). The Contractor shall provide information requested by the Contractor Officer regarding ratified collective bargaining agreements to which the Contractor is a party. The Contractor shall enter information, including but not limited to the executed collective bargaining agreements, into the iBenefits system (or any successor database) quarterly, or upon Contracting Officer request.

(iv) The Contractor shall notify the Contracting Officer in a timely fashion of labor relations issues that may cause a significant impact to the workforce.

(v) The Contractor shall immediately (within twenty-four hours) advise the Contracting Officer of the following:

(A) Possible strike situations or other actions affecting the continuity of operations including work stoppages and picketing;

(B) Formal action by the National Labor Relations Board (NLRB) including but not limited to issuance of a complaint against the Contractor. Copies of complaints, settlement agreements, judgments and any other documents issued in connection with Contractor actions with respect to labor practices shall be provided to the Contracting Officer;

(C) Recourse to procedures under the Labor-Management Relations Act of 1947 as amended or any other state law;

(D) Any grievance scheduled for arbitration under any collective bargaining agreement that has the potential for significant economic or other impact as well as the decision of the arbitrator; and

(E) Other significant issues that may involve review by other federal or state agencies.

6.0 WORKFORCE PLANNING

6.1 Workforce Planning - General

The Contractor shall analyze workforce requirements consistent with current and future mission requirements and develop appropriate workforce transition strategies to ensure appropriate skills are available at the right time, in the right number, in the right place. Particular attention shall be paid to current and future critical skills. This analysis shall be available for review upon Contracting Officer request.

6.2 Reductions in Contractor Employment – Workforce Restructuring

6.2.1 Voluntary Separations: In order to minimize the number of involuntary separations and mitigate the impact on affected employees, the Contractor will consider in consultation with the Contracting Officer, the use of a Voluntary Separation Program (VSP) before consideration is given to conducting an Involuntary Separation Program (ISP) when workforce restructuring is necessary. The Contractor shall submit the VSP for approval by the Contracting Officer prior to implementation regardless of the number of employees involved. No reimbursement of costs associated with VSPs will be allowable if not approved by the Contracting Officer prior to implementation.

6.2.2 Involuntary Reductions in Contractor Employment

6.2.2.1 If the restructuring involves separating between 10-99 employees in a rolling twelve-month period, the Contractor shall notify the Contracting Officer no later than 15 days in advance of the action.

6.2.2.2 For restructuring actions that involve separating between 50-99 employees, the Contractor shall prepare a specific workforce restructuring plan and submit the plan to the Contracting Officer for informational purposes. In addition, the Contractor shall perform a diversity impact analysis and provide a copy of the analysis to the NNSA Site Counsel at the Nuclear Production Site Office for any restructuring actions that involve 50 or more employees within a 12-month period.

If the restructuring may involve the separation of 100 or more employees within a 12-month period, the Contractor shall submit a specific workforce restructuring plan, for approval by the Contracting Officer, to enable compliance with Section 3161 of the National Defense Authorization Act for Fiscal Year 1993 at a minimum, no later than 90 days in advance of the date the Contractor needs to begin notification to employees in accordance with the law and its attendant timeframes to effect the separations.

6.2.2.3 All notifications to the NNSA must contain pertinent information such as reasons, costs, dates, and numbers of impacted employees.

6.2.3 Any payment of benefits beyond those already approved in the Contract must be approved by the Administrator, NNSA, through the Contracting Officer.

CHAPTER IV. Uranium Processing Facility (UPF)

1.0 INTRODUCTION

As discussed in Section J, Appendix A, Chapter II, Work Scope Structure, the Contractor retains Design Authority for the Uranium Processing Facility at Y-12 under CLIN 0001. CLIN 0002 (defined herein, as Design Agent) is inclusive of all project management elements associated with the design, procurement, construction, start-up, and turnover to operations of the facilities and processes for UPF. Applicable requirements discussed in Section J, Appendix A, Chapter I, Objectives, Scope, and Requirements, Chapter II, Work Scope Structure, and Chapter III, Human Resources, also apply to CLIN 0002, and supplemental requirements for CLIN 0002 are contained in this Chapter.

2.0 BACKGROUND

The UPF project is the solution to meeting NNSA's mission need for Enriched Uranium (EU) processing – by consolidating Y-12's EU processing and manufacturing into appropriately sized modern facilities that meet current safety and security requirements while eliminating the high cost and risk of maintaining Y-12's aging infrastructure. Existing EU processing equipment and technologies are outdated and oversized for the current mission. Y-12 facilities face significant deferred maintenance, require intensive routine maintenance, and are subject to escalating operating, utility, and maintenance costs. Worker protection relies on administrative controls and personal protection equipment rather than engineered controls. Replacement of the Y-12 facilities and equipment will be required to sustain operations, incorporate updated technology, and right-size processes.

3.0 ACQUISITION STRATEGY

The government may evaluate discrete scopes of work to determine the appropriate acquisition strategy for UPF design and construction. In response to these decisions, the Contractor shall be prepared to have:

(i) The appropriate systems, processes, and procedures in place to support the full suite of potential Federal acquisition strategies, such as Direct Federal Contracting and Interagency Agreements;

(ii) The ability to perform in a wide variety of roles on behalf on the Government, including serving as an owner's agent, construction manager, or staff augmentation (e.g. estimating, proposal development, etc.); and

(iii) A full suite of contracting mechanisms in its agreement with the Government including fixed-price, cost-reimbursement, incentive, indefinite-delivery, time-and-materials, and agreements as applicable and deemed necessary, in those cases where the Government decides not to perform the work directly (Note: the terms and conditions of contract may require modification for each type).

4.0 ROLES OF THE DESIGN AUTHORITY AND DESIGN AGENT

The role of the Design Authority will be performed by Mission Engineering under CLIN 0001 and will consist of defining the operational, high-level design, safety basis, and mission

requirements for the UPF engineering scope. The Design Authority is responsible for establishing and recommending approval of the UPF Safety Basis. The Design Authority is responsible for ensuring the operational, design, safety basis, and mission requirements are met. The Design Authority will provide conflict resolution and interpretation of design requirements. The Design Authority will provide oversight of design activities.

The role of the Design Agent will be performed by UPF Engineering under CLIN 0002, using the operational, design, safety basis, and mission requirements as defined by the Design Authority. The Design Agent is responsible for the professional quality, technical accuracy and adequacy, and the coordination of all designs, drawings, specifications and other services furnished under this contract. The Design Agent prepares all design documents and supporting information, maintains the design basis, controls configuration, and trends performance of systems.

The Contractor will be responsible for developing a detailed division of responsibility and interaction protocol between the Design Authority and Design Agent. This protocol will be contained within an Interface Control Document that will be jointly approved by the UPF Project Director and the Mission Engineering Manager.

5.0 DESIGN CODE OF RECORD

The Design Code of Record (COR), a term that shall be utilized for this Contract under CLIN 0002, refers to the requirements that are in effect during the entire life cycle of a facility or item of equipment, and includes Federal and state laws, DOE requirements, and specific design criteria defined by national codes and standards. The Design COR and its supporting documents form a single reference source for project design, construction, startup, operating, and decommissioning requirements. The Design COR organizes these documents in a manner that supports accessibility, traceability, and maintainability of facility requirements. Establishing the Design COR early in the design phase, and maintaining it under change control for the entire facility lifecycle, improves project costs, schedule, and safety, which enables effective turnover of the facility requirements for design, construction, operation, and decommissioning if the Contractor changes.

The UPF Project is an engineering, procurement, and construction (EPC) project that will be designed, constructed, tested/started up, and turned over to operations, in accordance with an established and approved Design COR, which is specifically applicable to the operational and mission requirements for the UPF engineering scope. The UPF project has adapted this approach to ensure that the UPF Design COR is established early in the design phase by the Contractor, accepted by NNSA early in the Critical Decision process, and controlled by both NNSA and the Contractor during design, construction, operations, and decommissioning.

The *Uranium Processing Facility (UPF) Design Code of Record*, PL-RM-801768-A001, herein referenced as "UPF Design Code of Record," along with the additional documents and standards identified in the *Uranium Processing Facility (UPF) Other Basis Records*, PL-RM-801768-A002, herein referenced as "UPF Other Basis Records," shall be adopted as a control point for establishing the project's design basis and shall remain under change control for the life of the project. This adoption does not constitute validation or approval of the content of these documents, since final approval will occur following the Contractor's submittal of the Conceptual Safety Design Report.

The UPF Federal Project Director, herein referenced as "FPD," shall be the final approval authority for the UPF Design Code of Record. Any equivalencies (including "modifications" or "alternatives" where used in lieu of equivalencies) and exemptions that are determined to be applicable:

(i) Shall clearly demonstrate an equivalent level of safety (i.e., meets or exceeds the required level of protection);

(ii) Shall be reviewed by the Senior Management Change Control Board prior to initiating an impact assessment and/or adoption; and

(iii) Shall be approved prior to implementation by the FPD.

The FPD and NPO Manager shall resolve any conflicts between UPF Design Code of Record document(s) within his authority, and provide formal Technical Direction to the Contractor, in accordance with this Contract. Where a change to the UPF Design Code of Record document(s) is determined to not be of benefit to the UPF Project in terms of cost or safety, and the FPD does not have the direct authority to approve the equivalency and/or exemption, the FPD will follow the provisions for relief as specified in DOE O 251.1C, *Departmental Directives Program* and DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*. Any formal concurrence and approvals from the Central Technical Authority (CTA), Chief of Nuclear Safety (CNS), or Chief of Defense Nuclear Safety (CDNS) shall be clearly captured in the supporting documentation reviewed by the Senior Management Change Control Board and incorporated into the UPF Design Code of Record after FPD approval, as applicable.

6.0 FUNCTIONAL ORGANIZATION

While the UPF project will be organized in a traditional functional organization approach, an integrated team culture is expected and required. The purpose of this integrated execution approach is to improve safety, quality, inter-discipline communication and efficiency, foster synergy, increase productivity, improve decision making ownership and accountability, and focus on completing the work scope. Typical areas where the integrated team concept is employed are:

(i) During the design phase with meaningful design and constructability reviews;

(ii) Through potential material/equipment vendor consolidation;

(iii) In engineering, procurement, and construction sequencing and integration; and

(iv) Including interfaces, support, and services required from other organizations across Y-12. For example, Design Authority, Procurement, Operations, Security, Nuclear Safety, Facility Maintenance, Emergency Management, etc.

7.0 GOALS AND OBJECTIVES

The benefits of executing the UPF project include ensuring reliable, long-term, consolidated EU processing capability for the NSE through modern technologies and facilities, an improved

security posture, and an improved health and safety environment for workers. The goals and objectives of the UPF project are to:

(i) Improve the security posture;

(ii) Replace end-of-life facilities and ensure a reliable EU processing capability to meet the mission of NNSA;

(iii) Improve worker protection with an emphasis on incorporating engineered controls; and

(iv) Comply with modern codes, standards, and Environmental Safety and Health (ES&H) practices.

8.0 PROJECT DESCRIPTION

The Contractor shall be responsible for performance of all UPF project activities including the following:

(i) Designing the facility for a 50-year life cycle.

(ii) Completing a detailed cost estimate and schedule to establish a baseline for scope associated with long-lead procurements and site preparations;

(iii) Obtaining approval of the full project performance baseline;

(iv) Constructing the facilities for EU processing capabilities;

(v) Constructing adjacent support and administrative buildings;

(vi) Procuring and installing electrical components, heating, ventilation and air conditioning equipment, communications, fire system monitoring, diesel generators, and fire water storage and distribution;

(vii) Procuring and installing process services equipment for delivery of industrial gases, chemicals, cooling water, etc.;

(viii) Constructing/installing electrical substation;

(ix) Installing security systems;

(x) Installing information technology systems;

(xi) Completing Perimeter Intrusion Detection and Alarm System (PIDAS) and portal work;

(xii) Installing long-lead items as received to support the construction schedule;

(xiii) Procuring the balance of process equipment and install the remaining capabilities for full functionality of UPF;

(xiv) Constructing the Highly Enriched Uranium Materials Facility (HEUMF) Connector;

(xv) Completing final site work; and

(xvi) Pre-operational testing.

Designing engineered controls into the facility equipment and processes will reduce or eliminate the numerous administrative controls relied on today. Consideration of long-term maintenance and reliability is an important aspect of facility and equipment design and selection to ensure a reliable, cost-efficient UPF while providing a safe workplace. Equipment shall be selected with appropriate assessment of life cycle cost factors. Automation and/or remote operation shall be considered where hazardous conditions, human factors, and/or efficiency of operations warrant.

The core EU processing capabilities that will be transitioned from the aging Y-12 infrastructure to the new UPF shall be defined in the NNSA issued PRD and approved SRD. These capabilities are expected to include, but are not limited to:

(i) Casting;

(ii) Special Oxide Processing;

(iii) Salvage Processing (e.g. chemical recovery), including conversion of scrap and salvage EU to safe forms for disposition; and

(iv) Material Accountability.

9.0 PROJECT GOALS AND MILESTONES

Project management of UPF includes: (1) Title I – Preliminary/Conceptual Design including Pre-Design, Schematic Design and Design Development; (2) Title II – Construction Documents including construction drawings, specifications, and cost estimate; (3) Title III – Construction Management including submittal review and inspection; and (4) Services for test and check out, integration with ongoing operations, and transition to operations, which shall be performed in accordance with the UPF Project Management Plan (Section J, Appendix G). The project management objectives provided in Section J, Appendix A, Chapter II, 1.1.3(iii), paragraphs (A) through (D) applies to the UPF project as well as the following:

(i) Executing the project consistent with a comprehensive plan and the UPF Program Requirement Document for managing EU production capabilities at Y-12 enabling NNSA to meet its mission;

(ii) Completing design and construction of the UPF in accordance with the current design information and the approved design for the final update of the UPF Project Management Plan, within the approved total project cost range and the funding profile;

(iii) Installation and preoperational startup of the EU process capabilities in the UPF buildings;

(iv) Managing under project management best business practices to include, but not limited to configuration control such that changes in the scope, cost, and schedule basis are documented;

(v) Regular updates of estimates at completion shall be provided to NNSA;

(vi) Documenting project management requirements in accordance with DOE O 413.3B entitled "Program and Project Management for the Acquisition of Capital Assets";

(vii) The Contractor shall provide input in the formulation of a project fee plan, as prescribed in Section B, B-8, UPF Fee Plan for CLIN 0002 scope of work;

(viii) The Contractor shall establish performance metrics consistent with Contract at Section J, Appendix B-2, UPF Fee Plan, in a way that quickly and accurately provides NNSA and Contractor management an overall assessment of the "health of the project"; and

(ix) Once established, the fee plan process and metrics shall become part of the Contractor's Contractor Assurance System, which shall allow NNSA with transparency to information in order to aid in the timely identification and understanding of significant performance issues.

10.0 COST REQUIREMENTS

Manage the UPF Project, as a severable cost center within the SUBCLIN structure defined under Section B CLIN 0002 of the Contract. This shall include all services (provided by M&O organizations under CLIN 0001) and subcontracts that support CLIN 0002, which shall be clearly defined by the Contractor (e.g. Statement of Work, Cost, and Roles and Responsibilities, etc.).

11.0 PROJECT DELIVERABLES

The following UPF Design Requirements Document, DOE/ORO-2171 Uranium Processing Facility (UPF) Program Requirements Document (PRD), and Deliverables Table of Contents, Contract Data Requirements List (CDRL) and Data Item Descriptions (DIDs), is hereby incorporated into the contract by reference, and shall be contained and maintained under configuration control pursuant with UPO-95-A025 UPF Project Senior Management Change Control Board (SMCCB) Process in full text, as revised, in PL-RM-801768-A002 Uranium Processing Facility (UPF) Other Basis Records (OBR), in accordance with section 5.0 Design Code of Record.

DATA ITEM DESCRIPTION (DID) #	TITLE
DID-ENG-0001/T	As-Built Configuration List
DID-ENG-0002/T	As-Built Drawings
DID-ENG-0003/T	Code of Record Document
DID-ENG-0004/T	Conceptual Design Report
DID-ENG-0009	Design Master Record Index
DID-ENG-0010	Facility Design Description
DID-ENG-0012/T	Final Design Review
DID-ENG-0014/T	Interface Control Document
DID-ENG-0015/T	Preliminary Design Report
DID-ENG-0017/T	SystemDesign Description
DIE-ENG-0018/T	Technology Readiness Assessment
DID-ENG-0019/T	Reliability, Availability, Maintainability, and Inspectability
DID-ENG-0020/T	Design Review Plan
DID-ENG-0021/T	Engineering Drawings
DID-ENG-0023/T	Equipment List
DID-ENG-0025/T	Design Change Control Plan
DID-ENG-0026	Requestfor Deviation (Request for Variance)

OT-ENG-1027	Design Criteria
OT-ENG-1028	Engineering Execution Plan
OT-ENG-1029	Material& Energy Balance Design Analysis Calculations
OT-ENG-1030	Process Narratives
OT-ENG-1031	Scope of Facilities
OT-ENG-1032	SystemRequirement Document
OT-ENG-1003	Other Basis Records
DID-ITS-0002	Technical Requirements Document
DID-ITS-0003	Cyber Security Plan
DID-OPS-0001	Operations and Maintenance Plan
DID-OPS-0002	Startup Notification Report
DID_OPS-0003	Startup Plan
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0002/T	Configuration Management Document Pick List
DID-PM-0003	Configuration Management Plan
DID-PM-0004/T	Project Completion Verification
DID-PM-0005	Document Control Plan
DID-PM-0006/T	Earned Value Management (EVM) Plan
DID-PM-0008	Long Lead Items List
DID-PM-0009	Systems Engineering Management Plan
DID-PM-0010	Procurement Plan
DID-PM-0011/T	Project Acquisition Plan
DID-PM-0012	Project Execution Plan
DID-PM-0013/T	Project Management Plan
DID-PM-0014/T	Project Performance Baseline Control Plan
DID-PM-0015/T	Records Management Plan
DID-PM-0016/T	Requirements Management Plan
DID-PM-0017/T	Risk Analysis Report
DID-PM-0018/T	Risk Management Plan
DID-PM-0019/T	Risk Register
DID-PM-0022/T	Work Breakdown Structure and WBS Dictionary
DID-PM-0023/T	Critical Path Schedule
DID-PM-0024	Fixed Price Contract Milestone & Schedule Status Report
DID-PM-0026/T	Monthly Project Report
DID-PM-0027/T	Resource Loaded Schedule
DID-PM-0028	Statement of Work
DID-PM-0029/T	Total Project Cost
DID-PM-0030/T	Emergency Management Plan
DID-PM-0031/T	Quality Assurance Plan
OT-PM-1031	Contractor Assurance System
DID-PM-0032	Technology Maturation Plan
DID-PM-0033/T	Value Engineering Plan
OT-PM-1033	Value Engineering ProgramStatus Report
DID-PM-0034	Communications Management Plan
DID-PM-0035/T	Project Funding Requirements Profile
DID-PM-0036/T	Federal Project Director Monthly Project Review
DID-PM-0037/T	Data Management Plan
DID-PM-0039/T	Master Document List
DID-PM-0040/T	Life Cycle Cost
DID-PM-0041/T	Project Closeout Report
DID-PM-0056	Root Cause Analysis
DID-PM-0059	Corrective Action Plan
DID-PM-0066	Integrated Baseline Review Report
DID-PM-0071	Nonconformance Report
DID-PRG-0001	Checkout, Testing, and Operations Acceptance
DID-PRG-0003/T	Key Performance Parameters
DID-PRG-0004/T	Key Project Assumptions
DID-PRG-0005	Operations and Maintenance Configuration Management

DID-PRG-0006/T	Performance Baseline Development Plan
DID-PRG-0009/T	Transition to Operations Plan
DID-PRG-0011	ProgramRequirements Document
DID-PRG-0014/T	Analysis of Acquisition Alternatives
DID-PRG-0015/T	Project Master Schedule
DID-PRG-0016	Performance Work Statement
DID-PRG-0017	Contract Data Requirements List
DID-PRG-0019/T	Project Data Sheet
DID-PRG-0020/T	Contracting Strategy Analysis
DID-PRG-0021	Monthly Status PARS II Report
DID-PRG-0022/T	Integrated ProgramManagement Report(IPMR)
DID-SAF-0001	Conceptual Safety Design Report
DID-SAF-0003	Operational Readiness Review Implementation Plan
DID-SAF-0004	Final Hazards Analysis Report
DID-SAF-0005	Hazardous Analysis Report
DID-SAF-0006	Preliminary Documented Safety Analysis
DID-SAF-0007	Preliminary Hazards Analysis
DID-SAF-0008	Preliminary Safety Design Report
DID-SAF-0009	Safety Design Strategy
DID-SAF-0010	Technical Safety Requirements
DID-SAF-0011	Documented Safety Analysis
DID-SAF-0012/T	Readiness to Proceed(RTP) Memorandum
DID-SAF-0013/T	Contractor Operational Readiness Review Plan of Action
DID-SAF-0014/T	Integrated Safety Management Plan
DID-SAF-0015	Safety Design Control Plan
DID-SAF-0016	Fire Hazards Analysis
DID-SAF-0017/T	Occurrence Report
DID-SAF-0018/T	Lessons Learned Report
DID-SAF-0019/T	Occupational Safety Plan and Reporting
OT-ADM-1001	Conference Minutes
DID-SEC-0001/T	Final Security Vulnerability Assessment
DID-SEC-0002/T	Preliminary Security Vulnerability Assessment
DID-SEC-0003/T	Security Plan
DID-SEC-0004/T	Safeguards and Security Requirements
OT-SEC-1006/T	Comprehensive Emergency Management System
DID-ITS-0001	Information Technology Management Plan
DID-EPC-0001	Environmental Compliance Strategy
DID-EPC-0002	Environmental Management SystemDocumentation
DID-EPC-0003	Final NEPA Documentation
DID-EPC-0004	NEPA Compliance Strategy
DID-CST-0001/T	Pre-Construction (Site Preparation) Plan
DID-CST-0002/T	Construction Management Plan
DID-CST-0003/T	Construction Work Authorization Plan
DID-CST-0004/T	Construction Safety Plan
OT-CST-1005	Daily Construction Progress Report
OT-CST-1006	Weekly Construction Working Schedules
DID-MGMT-81468/T	Contract Funds Status Report

APPENDIX B.

PERFORMANCE EVALUATION PLANS

[*MODs 0015, 0045, 0052, 0075, 0084, 0118, 0162, 0177, 0201, 0211, 0246, 0276, 0285, 0299, 0303, 0345, 0356*]

*B-1 PERFORMANCE EVALUATION PLAN FOR THE MANAGEMENT AND OPERATION (M&O) OF Y12/PX *[Replaced in its entirety by MOD 0015, Fiscal Year 2015 version added by MOD 0045, Fiscal Year 2016 version added by MOD 0052, Fiscal Year 2017 version added by MOD 0084, Fiscal Year 2018 version added by MOD 0118, Fiscal Year 2019 version added by MOD 0162, Fiscal Year 2020 version added by MOD 0177, Fiscal Year 2021 version added by MOD 0211, Fiscal Year 2022 version (Oct12022-Mar312022) added by MOD 0246, Revised FY22 PEMP-Fiscal Year 2022 version (Oct12022-Sept302022) added by MOD 0276, Fiscal Year 2023 version added by MOD 0276, Fiscal Year 2023 Revision 1 added by Mod 0285, Fiscal Year 2023 Revision 2 added by Mod 0299, Fiscal Year 2024 version added by Mod 0303, Fiscal Year 2024 Revisions 1 and 2 added by Mod 0345, Fiscal Year 2025 version and Revisions 1 and 2 added by Mod 0356]*

*For the latest B-1 Performance Evaluation and Measurement Plans (PEMPs) revisions, including those for each Fiscal Year, please refer to the hyperlink below. You will find them under the *PEMPs and PERs*, *Pre-2015 Pantex PEMPs and PERs*, and *Pre-2015 Y-12 PEMPs and PERs* dropdown menus. All historical revisions of the PEMP are located under the *Contract and modifications* dropdown menu within their respective Modification document hyperlink.

https://www.energy.gov/nnsa/y-12-national-security-complex-contract

**B-2 PERFORMANCE EVALUATION PLAN FOR UPF PROJECT MANAGEMENT
[Incorporated by MOD 0075, Amended by MOD 0201]

**B-2 is found below.

B-2

PEFORMANCE EVALUATION PLAN FOR UPF PROJECT MANAGEMENT

CLIN 0002

[MODs 0075, 0201]

Uranium Processing Facility (UPF)

UPF FEE PLAN

Contract No. DE-NA0001942

With

Consolidated Nuclear Security, LLC (CNS)

National Nuclear Security Administration

[redacted]

Date

Brian P. Reilly
UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]

Date

Dale E. Christenson
Federal Project Director
NNSA, UPF Project Office

[redacted]

Date

Scott S. Crawford
UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]

Date

Michael C. Bocskovits
Contracting Officer
NNSA, UPF Project Office

Revision Log

Revision	Date	Description	Total Pages	Affected Pages
0	November 3, 2015	Initial issue.	Front matter, i–ii Body, 1–6; Appendix A; Appendix B.	All
1	September 1, 2016	Added language for CO timeframe on Contractor earned fee requests.	Front matter, i–ii Body, 1–6; Appendix A, 1-3; Appendix B, 1.	6

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FEE PLAN TERMINOLOGY

APPENDIX B B-1

COST PLUS INCENTIVE FEE (CPIF) COMPONENTS

1. Introduction

The Uranium Processing Facility (UPF) project, herein referenced as "Project," is a major capital asset line item project for the United States Department of Energy (DOE), at the Y-12 National Security Complex in Oak Ridge, Tennessee, and is overseen by the National Nuclear Security Administration (NNSA) under the Office of Acquisition and Project Management (NA-APM).

The Project is being managed under the Cost Reimbursement Management and Operations (M&O) Contract No. DE-NA0001942, Contract Line Item Number (CLIN) 0002 - UPF Project Management, with Consolidated Nuclear Security, LLC (CNS), herein referenced as "Contractor," pursuant to the terms and conditions of the subject prime contract, including any special contract requirements, herein referenced as "Contract."

Under the terms and conditions of the Contract, the incentive fee associated to CLIN 0002 is separate and severable from all other fee provisions set forth in the Contract, so a separate and severable fee plan shall be maintained for the entire performance of the Project. Any Project scope allocated between the Contractor and NNSA Direct scope will be managed through the Baseline Change Proposal (BCP) process and authorized via Work Authorization and Contract modification when moving scope and/or funding.

2. Purpose

The UPF Fee Plan, herein referenced as "Plan," documents the base fee structure and implementation of fee provisions in which Project performance will be evaluated and upon which NNSA will determine the amount of Contractor provisional and earned fee.

The purpose of the Plan is to document the performance objectives and incentive provisions of the Contract, as well as the approach, procedures, and metrics the Government will use to administer the Plan. The desired behavior of the Contractor is to deliver high quality products and services (technical requirements), within the approved Performance Measurement Baseline (PMB), cost and schedule, which will ultimately deliver a UPF fully capable of meeting all DOE/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The Plan replaces the standard NNSA-corporate strategic governance and oversight model for typical standalone M&O contracts, with a framework that utilizes the NA-APM construct (DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*) for managing major capital asset projects under an M&O contract.

The Plan will cover all CNS authorized Project scope, including Work Authorizations and Authorized Unpriced Work. The Project scope is broken out by Design Management Plan (DMP), and Construction Management (CM) subprojects, which will be measured in accordance with the oversight methods of the Contract, or as defined in the Plan.

3. Approach

The approach for the Plan is to have a fee structure that will appropriately motivate Contractor performance while reducing Government risk through the use of Performance Objectives and Cost Plus Incentive Fee (CPIF) arrangements.

The goal of the Plan and fee structure is to incentivize the Contractor to deliver the Project on time and on budget, with a facility that meets all of the contractual requirements. Therefore, an element of the fee structure is the Contractor's demonstrated performance in completing Contract deliverables that comply with DOE O 413.3B, including, but not limited to: Statement of Work, Program Requirements Document (PRD), Systems Requirements Document (SRD), Contract Data Requirements List (CDRL)/Data Item Descriptions (DID), and all other applicable DOE Orders, Standards, and Contractor Requirements Documents, as set forth in the Contract.

In order to provide a balanced fee structure, the Plan may include a mix of incentive provisions for meeting discrete Project scope.

4. Establishing Plan

The Contracting Officer (CO) must ensure that the cost and fee structure is commensurate with the Critical Decision (CD) phase and performance risks, as it pertains to DOE guidelines, limitations, and factors for determining fees.

Pursuant to DOE O 413.3B (Appendix C, Page C-3)(3), the Performance Baseline (PB) is established at CD-2, which marks the completion of preliminary design. The PB represents NNSA's commitment to Congress for delivering the Project's defined scope by a particular date at a specific cost, with the exception of any separately approved subprojects and long lead procurements, as applicable. Cost estimates for the DMP in advance of CD-2 do not represent finite commitments, and therefore need to be managed differently.

The Plan includes a separate exhibit, herein referenced as "Annex," for establishing the negotiated fee structure and performance objectives for each discrete scope of work. In order for the CO to determine the proposed costs are fair and reasonable, the Contractor shall provide a cost/schedule baseline proposal in sufficient detail for the Government to perform the appropriate price/cost analysis. Pursuant to FAR 15.404-1(b), the Government may use various price analysis techniques to definitize the negotiated target cost and target fee structure in the Contract.

Prior to CD-2 approval, the Government will manage authorized scope, whether definitized or undefinitized through the use of Work Authorizations or Limitations of Costs constraints via letters of direction. Additionally, the Government may opt to use the DMP baselines and/or estimated cost/schedule baseline(s) for subprojects for performance purposes until annexes are established.

5. Plan Oversight

The Contractor is responsible for Project management, and the quality level required to meet the Project's technical requirements, deliverables, and terms and conditions of the Contract.

The Plan will be monitored by the Government through an "open book" assessment of the Contractor's technical, cost, and schedule data, which includes the Government's own evaluation of costs, fee, and Earned Value Management Systems (EVMS) metrics, as well as oversight across all functional areas, including, but not limited to: Safeguards and Security; Quality Assurance; Project Management; Integrated Project Schedule and EVMS; Engineering, Procurement & Subcontract Management, and Construction (Processes, Procedures, and Systems); Environmental, Safety, and Health; Technology Development; and Business and Contract Management.

Each Annex will have an oversight section that describes the approach the Government will use for conducting performance objective oversight to ensure the Contractor delivers high quality products and services that meet the Project requirements. The Contracting Officer's Representatives (CORs), with input from functional area managers, will use the Annexes to measure how the key performance objectives of the Contract are met. The role of the Government oversight model is to ensure Contract objectives are achieved. The CO may notify the Contractor anytime during performance of the Contract to address cost, schedule, and/or performance concerns needing attention.

6. Change Procedures

The Plan and Annexes shall be approved and incorporated into the Contract by modification at Section J, Appendix B-2, UPF Fee Plan by the CO. The Plan and Annexes will be updated as necessary during Contract performance. These updates may include, but are not limited to, required changes caused by new authorized scope, CO/COR direction, project phasing, change control, and/or establishing/adjusting cost incentives and performance objectives. Any changes to the Plan and Annexes shall be codified by a Contract modification.

7. Programmatic and Contractual Terminology Clarifications

a. Project Changes vs. Contract Changes

Project Changes: Pursuant to DOE O 413.3B (A-21)(6e) the Contractor, Federal Project Director (FPD), and Project Management Executive (PME) use approved BCPs to change the estimated or approved PB and PMB of the Project, based on change control approval thresholds. However, these baseline changes do not change the Contract.

Contract Changes: The CO is the only individual who has the authority to issue Contract changes and modifications; and only when they comply with regulatory and statutory requirements in accordance with the changes clause of the Contract. Part II - Section I, Sub-Section I-2, DEAR 970.5243-1, *Changes* (Dec 2000). Thus, the Contractor shall coordinate with the CO to identify any specific Contract changes that may be required as the result of a BCP, prior to submitting for approval.

b. Contingency

Pursuant to DOE Acquisition Letter AL 2009-01, when establishing the negotiated pricing and fee structure for each Annex, only the Contractor's controlled and proposed contingency costs, i.e., Management Reserve (MR), consistent with FAR 31.205-7(c)(1) shall be allowed and included in the overall cost against which fee is calculated – "those that may arise from presently known and existing conditions, the effects of which are foreseeable within reasonable limits of accuracy; e.g., anticipated costs of rejects or defective work."

However, the Contractor has the burden of proof in demonstrating its proposed costs, including any Contractor controlled contingency costs, are reasonable, allocable, and allowable.

c. Contract Price

Pursuant to DOE O 413.3B and DOE G 413.3-10, *Earned Value Management System (EVMS)(Appendix B),* the following information is provided to ensure clarity of terms used in the Plan.

a. Contract Price (CP), a performance measurement term, represents Contract Budget Base (CBB) plus fee/profit, or *CP = CBB + profit/fee*.

b. CBB, a performance measurement term, includes all the authorized work, i.e., Negotiated Contract Cost (NCC) plus any Authorized Unpriced Work (AUW), from which the PMB is derived. However, CBB excludes Government contingency, other DOE direct costs, and any fee/profit. *CBB = PMB + MR*.

c. PMB, a project management and performance measurement term, represents an element of CBB, but by itself excludes MR (Contractor held contingency) and any fee/profit.

d. The Contract Estimated Price on Contract, a contractual term, represents the Governments estimated costs or negotiated costs of authorized priced scope, including any earned fee or allowable contingency costs, shown as a limitation of costs constraint under Cost Reimbursement contracts. Any changes that affect the Contract price on Contract shall be definitized by a modification to Contract, Section B, CLIN 0002 by the Contracting Officer.

8. Provisional Fee

Pursuant to DOE Acquisition Letter AL 2014-02, provisional payment of fee is paid to the Contractor for progress towards meeting performance objectives *before* the Contractor has earned the available fee. Therefore, provisional payment of fee is 100% at risk until earned.

The Contractor may request provisional fee payments on established Annexes, or as otherwise authorized by the CO, however, these requests shall be made no more frequently than "quarterly" and in writing to the CO. The amount of each provisional fee payment will be directly and expressly linked to the Contractor's demonstrated and continued performance towards earning fee. The Contractor's request shall summarize the basis for the amount of provisional fee requested. Each successive provisional fee payment, if any, shall reflect the Contractor's cumulative performance to date.

The CO's evaluation of provisional fee requests shall rely on the Contractor's ability to clearly demonstrate satisfactory progress and/or completion of discrete scopes of work against the budgeted value of work actually accomplished for each Annex. Other inputs may include, but are not limited to, routine and un-scheduled site visits, inspections, assessments, and peer reviews. The CO will notify the Contractor in writing within 30 calendar days from receipt of request outlining the amount of approved provisonal fee that can be drawn down from the letter of credit.

The CO, with coordination from NNSA HQs, will monitor performance to determine if the Contractor has met the requirements under which the Government will pay provisional fee to the Contractor, as well as any adjustments to the cumulative amount of provisional fee already paid.

In the event the CO determines the Contractor has over drawn provisionally paid fee, the Contractor shall return that provisionally paid fee to the Government within 60 calendar days of notification:

- The Contactor's obligation to return the provisionally paid fee is independent of its intent to dispute, and/or its disputing the CO determination in accordance with the disputes clause of the Contract. Part II - Section I, Sub-Section I-1, FAR 52.233-1, *Disputes, Alternate I* (Dec 1991)(Jul 2002); and

- If the Contractor fails to return the provisionally paid fee within 60 calendar days of the CO notification, the Government, in addition to all other rights that accrue to the Government, may withhold/deduct the amount of the provisionally paid fee from amounts the Government would otherwise authorize the Contractor to draw down under a Letter of Credit, or any other Contractor owed obligation.

9. Earned Fee

Earned fee is due the Contractor by virtue of its meeting the stated performance objectives of the Plan, Annexes, and Contract requirements entitling it to fee.

For the purposes of this Plan:

- All fee is 100% at risk until earned;
- Contractor performance objectives will be primarily measured against Cost 50% and Schedule 50%, with the flexibility for adjusting percentage split or adding other performance objectives to negotiated annexes based on scope and risk.
- All negotiated fee associated with cost performance objectives shall be provisional through the end of the project and/or contract, as spelled out in each Annex;
- Maximum fee will be > 5%, based on negotiated target cost and target fee share lines;
- How and when fee is earned will be negotiated and captured in each Annex; and,
- All fee is subject to the terms and conditions of the Contract, including any special contract requirements.
- The CO will notify the Contractor in writing within 45 calendar days or as mutually agreed between the parties, from receipt of an acceptable request outlining the amount of approved earned fee that can be drawn down from the letter of credit.

10. Incentive Fee Structure

The Government will bilaterally establish the incentive fee structure under the Plan by negotiating each discrete element of scope and incorporating the agreement, i.e., Annex, into the Contract via modification. However, the Government is under no obligation to pay provisional or earned fee without an approved Plan with agreed to Annexes.

The creation of each Annex and establishment of performance objectives, target cost, target fee, share lines, and maximum/minimum fee will be the result of several variable factors, including:

- The Government's price objective; and
- The Contractor's price objective.

It is anticipated that each Annex may contain a cost incentive, schedule incentive, and other applicable performance objectives. It is anticipated that some scope may require a deeper analysis of the reasonableness of and necessity for all costs incurred, risks, and the relative effectiveness of the Contractor's management and overall performance. Regardless, the Government’s objective is the same, to negotiate and definitize a reasonable price and fee structure with the Contractor. The final fee determination shall be made by the Government using the criteria and/or conditions contained in the annexes.

APPENDIX A

FEE PLAN TERMINOLOGY

Refer to DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets* and DOE G 413.3-10, *Earned Value Management System (EVMS)* for additional terms related to EVMS managed Projects. Additional terms may be added as Annexes are developed.

Actual Cost – the reasonable costs that the Contractor can claim, i.e., reasonable, allowable, and allocable.

Annex – the method for capturing the negotiated fee structure, performance objectives, and oversight for each discrete scope of work.

Authorized Unpriced Work (AUW) – is contractually approved scope, i.e., approved baseline changes, but not yet negotiated or definitzed on Contract.

Baseline – A quantitative definition of cost, schedule and technical performance that serves as a base or standard for measurement and control during the performance of an effort; the established plan against which the status of resources and the effort of the overall projects are measured, assessed and controlled.

Baseline Change Proposal – A document that provides a complete description of a proposed change to an approved performance baseline, including the resulting impacts on the project scope, schedule, design, methods, and cost baselines.

Earned Value – The budgeted value of work actually accomplished in a given time. Simply defined, Earned Value represents the value of work accomplished during the period.

Earned Value Management – A project performance method that utilizes an integrated set of performance measurements (e.g., scope, cost and schedule) to assess and measure project performance and progress, and estimate cost and schedule impacts at completion.

Earned Value Management System – An integrated set of policies, procedures and practices to objectively track true performance on a project. EVMS represents an integration methodology that is able to provide an early warning of performance problems while enhancing leadership decisions for successful corrective action.

Fee Plan – Captures the fee strategy. The base plan details the processes and procedures for implementing the fee structure and methodology of developing annexes for evaluating the contractor's performance.

Final Fee – The amount of fee owed to the Contractor, which includes adjustements for Contractor underruns, overruns or other performance objective fee adjustments.

Maximum Fee – The highest fee that may be earned, usually expressed as a percentage, but translated into a fixed dollar amount.

Minimum Fee – The lowest fee that may be earned, usually expressed as a percentage, but translated into a fixed dollar amount.

Other NNSA Direct Costs – Refers to scope being performed by someone other than the M&O Contractor, e.g. the United States Army Corps of Engineers (USACE), but included in the Projects PB and TPC.

Other Project Costs (OPC) – All other costs related to a project that are not included in the Total Estimated Cost (TEC).

Performance Baseline (PB) – The collective key performance, scope, cost, and schedule parameters, which are defined for all projects or subprojects at CD-2. The PB includes the entire project budget (TPC including fee and contingency) and represents DOE's commitment to Congress.

Performance Measurement Baseline (PMB) – The baseline cost that encompasses all contractor project work packages and planning packages, derived from summing all the costs from the Work Breakdown Structure. Undistributed management reserve, contingency, profit, fee and DOE direct costs are not part of the PMB. The PMB is the benchmark used within EVM systems to monitor project (and contract) execution performance.

Performance Objectives – The objective of incentive contracts is to motivate contractors to earn more compensation by achieving better performance objectives (cost, schedule, and/or technical); to better control costs and performance.

Range of Incentive Efectiveness (RIE) – RIE is a judgment of the range of probable costs and not an estimate of the range of possible costs above or below that range. Thus, RIE is the byproduct of cost analysis, and the conclusion reached after fact-finding, negotiations, and analysis of cost projections. The RIE is that conclusion translated into target cost/fee, share lines, and maximum/minimum fee dollars.

Share Line (Ratio) – The agreed upon cost sharing proportion, normally expressed in percentage, which is often different for cost overruns and cost underruns.

Target Cost – The estimated total contract cost for a subject Annex. The Target Cost will represent the point in the range of possible costs which both parties to the Contract agree is the “most probable.” The RIE sets the range of what Contract costs are likely to be, expressed in terms of most pessimistic to most optimistic.

Target Fee – The estimated fee for a subject Annex. The Target Fee is the amount of fee to be paid if the Target Cost matches the Actual Cost. The Target Fee will

represent the point in the range of possible fees which both parties to the Contract agree is the “most probable.” The RIE sets the range of what Contract fees are likely to be, expressed in terms of most pessimistic to most optimistic.

Total Estimated Cost – All engineering design costs, facility construction costs and other costs specifically related to those construction efforts.

Total Project Cost – All costs between CD-0 and CD-4 specific to a project incurred through the startup of a facility, but prior to the operation of the facility. Thus, TPC includes TEC plus OPC.

Variances – A measurable change from a known standard or baseline. It is the difference between what is expected and what is actually accomplished. A variance is a deviation or departure from the approved scope, cost or schedule performance. Variances are expected, but the Contractor’s potential of earned fee is directly related to the final variances.

Work Breakdown Structure – Used by the project management team to organize and define a project into manageable objectives and create a blueprint by which the steps leading to the completion of a project are obtained.

APPENDIX B

CPIF STRUCTURE COMPONENTS

CPIF Structure Components

The following CPIF structure component definitions will be used for developing the share line formulas in each Annex for calculating final fee. This structure forms the basis for the Plans incentive arrangement and sharing of risks between the Government and the Contractor regardless of the use of a single or multi-level share line model.

C_T = Target Cost // Negotiated Target Cost ($).

C_{TAC} = Total Allowable Cost // Actual Cost ($) the Contractor can claim.

F_T = Target Fee // Negotiated Target Fee ($).

F_{MAX} = Maximum Fee // *Maximum Fee ($) > Target Fee, but within statutory range.*

F_{MIN} = Minimum Fee // *Minimum Fee ($) < Target Fee, but not < Zero.*

F_{ATF} = Adjusted Target Fee // Calculated Fee amount ($) after share line(s) applied.

F_{AFF} = Adjusted Final Fee // Calculated Fee amount ($) after adjustments applied.

C_{TAP} = Total Adjusted Price // Calculated Contract Price ($) after Fee applied.

Share Ratios: Government Under/Over Target Shares, expressed as the Government percentage share of cost risk over the Contractor percentage share of cost risk.

Under Target Share = S_{GU}/S_{CU} // Government Share (%)/Contractor Share (%).

Over Target Share = S_{GO}/S_{CO} // Government Share (%)/Contractor Share (%).

Uranium Processing Facility (UPF)

Design Management Plan (DMP)
Fee Structure

Annex 1 (REV 7)

National Nuclear Security Administration

[redacted]

Date

John P. Howanitz
UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]

Date

Dale E. Christenson
Federal Project Director
NNSA, UPF Project Office

[redacted]

Date

Scott S. Crawford
UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]

Date

Michael C. Bocskovits
Contracting Officer
NNSA, UPF Project Office

Revision Log

Revision	Date	Description	Total Pages	Affected Pages
0	April 21, 2016	Initial issue.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	All
1	August 10, 2016	Change to target cost/target fee related to BCP 16P159 for increase in UPF testing scope required to achieve TRL 7 for microwave casting technology.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	A-1-10 B-2
2	September 1, 2016	Added Target Price Change Log.	Front matter, i–ii Body, 1–2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-2
3	November 1, 2016	Change to target cost/target fee related to BCP17P018 return to contingency of hours/costs related to LEED certification no longer required. Max Fee correction.	Front matter, i–ii Body, 1–2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-1-11 B-2
4	June 16, 2017	Change to target cost/target fee related to BCP17P336 draw from contingency for revised PIDAS design requirements.	Front matter, i–ii Body, 1–2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-1-11 B-2
5	March 5, 2018	Change to target cost/target fee related to BCP18P095, 18P098, and 18P0138 return to contignecy for removal of duplicate scope.	Front matter, i–ii Body, 1–2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-1-11 B-2
6	June 19, 2018	Change to target cost/target fee related to Procurement Pool removal. Includes Journal correction to correct Rev 4 error to provisional schedule objective fee total.	Front matter i-ii Body, 1-2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-1-11 B-2
7	September 12, 2018	Change to target cost/target fee related to negotaited agreement for DMP Closure.	Front matter i-ii Body, 1-2; Appendix A, 1-18; Appendix B, 1-2; and Appendix C, 1-3.	A-1-11 B-2

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DMP PERFORMANCE OBJECTIVES

APPENDIX B B-1

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

APPENDIX C C-1

GOVERNMENT OVERSIGHT MODEL

1. Introduction

The Uranium Processing Facility (UPF) Design Management Plan, herein referenced as "DMP," was authorized by the National Nuclear Security Administration (NNSA) to advance design activities for the multiple building, campus approach for the Uranium Processing Facility (UPF). The DMP scope is being performed by Consolidated Nuclear Security, LLC (CNS), herein referenced as "Contractor," as defined in the UPF Project Execution Plan, UPF Project Execution Plan, PL-PJ-801768-A006, which establishes the formal plan for executing the project.

The DMP scope supports the UPF Project by completing Conceptual, Preliminary, and Final design, which includes all the associated safety basis documents as logical predecessors to establishing Critical Decisions. The DMP scope is best characterized as nuclear and non-nuclear design work, and includes new technologies. The DMP scope shall be managed through the use of the Project's design management baseline in order to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base (CBB), Statement of Work, and Key Performance Parameters (KPPs) required for achieving design completion requirements and critical decisions before construction authorization.

The DMP scope shall support the Enriched Uranium Mission (EUM), with timely, cost effective, high quality deliverables.

2. Purpose

The DMP Fee Structure, herein referenced as "DMP Annex" (Annex 1), is a subset of the overarching Contract, Section J, Appendix B-2, "UPF Fee Plan," that documents the Performance Objectives and Cost Plus Incentive Fee (CPIF) arrangement, in which DMP performance will be evaluated. The purpose of the DMP Annex is to document the target cost and incentive fee/fixed fee structure, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a "contract price" for the DMP scope.

3. Approach

The desired performance of the Contractor is to deliver high quality DMP deliverables (technical requirements) and/or integration support, which will ultimately deliver a UPF fully capable of meeting all DOE/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The desired goal is to properly incentivize the Contractor to deliver DMP scope on/or under budget and on/or ahead of schedule, by establishing a reasonable Target Price, including Cost and Schedule Performance Objectives for meeting the DMP scope.

4. Establishing Annex

The DMP Annex shall be approved and incorporated into the Contract by modification at Section J, Appendix B-2, UPF Fee Plan by the Contracting Officer (CO).

The Government will primarily incentivize the Contractor using the following critical performance objectives, unless otherwise documented in the Annex:

- Cost
- Schedule

By employing these incentives, the Government expects to motivate the Contractor to aggressively manage resources as required in order to provide high-quality and timely completion of authorized scope and integration/support of all DMP deliverables. Eligibility and the amount of the incentive fee earned shall be dependent on the Contractor meeting or exceeding the established performance objectives. Failure to meet any of the established DMP Performance Objectives, Appendix A, may result in the Contractor's forfeiture of incentive fee for that assigned objective or element.

5. Annex Oversight

The Government Oversight Model, Appendix C, describes the approach NNSA will use for conducting surveillance and oversight of DMP Performance Objectives and Contract deliverables, in order to ensure the Contractor delivers high quality products and services that meet the UPF Project requirements. The CO and Contracting Officer's Representatives (CORs), with input from functional area managers, will measure how the key performance objectives of the Contract are met. The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives, i.e., final outcomes, are achieved. The CO/COR may notify the Contractor anytime during performance of the Contract to address cost, schedule, and/or performance concerns needing attention.

In order to provide high confidence in the performance baseline and construction start authorizations, major design completion requirements have been extracted from the UPF Plan for Design Reviews Supporting Design Completion PL-EG-801768-A006 for use within the DMP Annex. Design completion requirements used in the DMP Annex shall be consistent with DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets and recent DOE and NNSA guidance. Specifically, the design for the nuclear facilities subprojects will be at least 90 percent complete prior to CD-2/3 approval, and the design of the non-nuclear subprojects is required to be sufficiently complete to establish a Performance Baseline (PB).

6. Change Procedures

The DMP Annex may be updated as necessary during Contract performance. These updates may include, but are not limited to, required changes caused by new authorized scope, project phasing, approved target cost change control, and/or establishing/adjusting fee incentives and performance objectives. Any changes shall be codified by a Contract modification within Section J, Appendix B-2, UPF Fee Plan.

All changes, including DMP Baseline Changes, are subject to the thresholds outlined in the UPF Project Execution Plan, PL-PJ-801768-A006, Appendix C.

Appendix A

DMP PERFORMANCE OBJECTIVES

Fee – Summary	
Target Price (P_T), includes available fee	$943,529,075
Available Fee (F_A), only includes unrealized cost and schedule fee	$44,929,956
NOTE: The Target Price for DMP includes the Target Cost for work completed and work planned through July 01, 2014 to February 16, 2018, and includes the amount of available fee for this period. NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report. Cost and Schedule performance objectives apply to the project requirements being delivered and/or performed under this scope. For the purposes of this negotiated annex, all fee associated to the cost objective is provisional to the end of the project (UPF CD-4) or contract, subject to the final fee determination and Contract modification.	
Cost Objective Elements – 50%	
Target Cost (C_T)	$898,599,119
Target Fee (F_T)	$22,464,978
Level 1 Under Target Cost (C_{UT1})	$878,599,119
Level 1 Under Target Share Ratio (S_{GU1}/S_{CU1})	90/10
Level 2 Under Target Cost (C_{UT2})	$837,859,764
Level 2 Under Target Share Ratio (S_{GU2}/S_{CU2})	60/40
Maximum Fee (F_{MAX})	$40,760,720
Level 1 Over Target Cost (C_{OT1})	$918,599,119
Level 1 Over Target Share Ratio (S_{GO1}/S_{CO1})	90/10
Level 2 Over Target Cost (C_{OT2})	$939,064,097
Level 2 Over Target Share Ratio (S_{GO2}/S_{CO2})	0/100
Minimum Fee (F_{MIN})	$0

Schedule Objective Elements - 50%	
Schedule Fee (F_{SM}) Milestones	$22,464,978
Schedule Fee (F_{SSG}) Stretch Goals *	$0
* Stretch goal incentives are only available when DMP Actual Costs are ≤ Level 1 Over Target Cost (COT1).	

Target Price - Change Log

Modification	Target Cost	Avalable Fee	Target Price
Rev 0	$909,426,000.00	$45,471,300.00	$954,897,300.00
Rev 1	$6,136,108.00	$306,806.00	$6,442,914.00
Rev 2	0.00	$0.00	$0.00
Rev 3	($379,990.00)	($19,000.00)	($398,990.00)
Rev 4	$867,517.00	$43,376.00	$910,893.00
Rev 5	($1,372,012.00)	($68,601.00)	($1,440,613.00)
Rev 6	($3,087,064.00)	($154,353.00)	($3,241,417.00)
Rev 7	($12,991,440.00)	($649,572.00)	($13,641,012.00)
	$898,599,119.00	$44,929,956.00	$943,529,075.00

Scope – Summary

UPF is being designed to house the necessary capabilities and capacities to comply with the requirements of DOE/ORO-2171, Uranium Processing Facility Project: Replacement of Select Building 9212 Capabilities Subproject at Y-12 National Security Complex Program Requirements Document. Detailed systems requirements are delineated in the Systems Requirements Document for the Uranium Processing Facility Project (SRD) (SR-PE-801768-A001). Design criteria, which govern the overall design of the project, are detailed in the multi-volume Uranium Processing Facility Design Criteria (U) (DE-PE-801768-A001 through A053). See UPF Project Execution Plan, PL-PJ-801768-A006, Section 4.1, Scope Baseline for additional details.

NOTE: Major scope elements are identified in the Work Break Down (WBS) section.

Critical Decision (CD) - Summary	
CD-4 Forecasted Approval	4th QTR FY 2025
Key Performance Parameters, as it relates to design.	
1	Provide the necessary facilities with the appropriate safety and security functions to support the enriched uranium operations.
2	Provide the capability and capacity to conduct enriched uranium casting operations to produce cast uranium metal and alloyed items.
3	Provide the capability and capacity to convert bulk enriched uranium metal and casting residue to enriched uranium oxide.
4	Provide the capability and capacity to manufacture special uranium oxides from enriched uranium feedstock materials including alloys.
5	Provide the capability and capacity to process enriched uranium salvage streams from UPF and existing Y-12 facilities to provide material accountability, convert material to a stable form for storage, and prepare materials for waste distribution.
6	Provide the support operations required to run the processing capabilities (to include process support, maintenance shop, and packaging/shipping).

Schedule Milestones – Deliverable Summary [1]

Deliverable	Submission Date	Approval Date [5]	Impact Date
PSDR Submittal/PSVR Approval	June 15, 2016	November 10, 2016	November 11, 2016

Earned Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal
$1,000,000	$0	N/A

Definition of Complete: The PSDR submittal shall be suitable for review by having the format and content prescribed by DOE-STD-3009-94. The PSDR approval shall meet the DOE-STD-1189-2008 and shall be approved by the NNSA Safety Basis Approval Authority by issuance of a PSVR such that the Conditions of Approval within the PSVR do not impact the on-time submission and approval of the PDSA.

The fee associated with this Earned Value at Milestone is only available until November 10, 2016.

NNSA Review Duration: 148 Calendar Days.

Deliverable	Submission Date	Approval Date [5]	Impact Date
MEB CD-2/3 Package Submittal and Approval	August 23, 2016	February 13, 2017	March 30, 2017

Earned Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal
$1,000,000	$0	N/A

Definition of Complete: Critical Decision 2 and Critical Decision 3 requirements in Department of Energy Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* and the Secretarial Policy Memoranda *Project Management Policies and Principles*, dated June 8, 2015. Verification of completeness shall be performed by a series of reviews including a UPO Sufficiency Review, an Independent Cost Estimate team and an External Independent Review. Critical Decision 2 and Critical Decision 3 approval by the Project Management Executive shall be obtained.

The fee associated with this Earned Value at Milestone is only available until March 29, 2017.

NNSA Review Duration: 174 Calendar Days.

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable	Submission Date	Approval Date [5]	Impact Date
CD-3B and CD-3C Long Lead Procurement Packages for Gloveboxes and Skids Submittal and Approval	October 31, 2016	March 30, 2017	June 30, 2017

Earned Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal	Approval Delay Reductions (Calendar Days) [4]
$1,000,000	$0	N/A	$10,870/day; $1,000,000 max

Definition of Complete: Applicable Critical Decision (CD)-2 and CD-3 requirements in Department of Energy Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* and the Secretarial Policy Memoranda *Project Management Policies and Principles*, dated June 8, 2015. Applicability shall be determined in advance by an UPO FPD approved CD-3B and CD-3C Tailoring Strategy. Verification of completeness shall be performed by a series of reviews including a UPO Verification Review, an Independent Cost Estimate team and a NNSA independent review. Critical Decision 3B/3C approval by the Project Management Executive or the Chief Executive of Project Management shall be obtained.

Additional requirements include:

- Complete the design review for all long-lead procurement items, including resolution of all relevant pre-CD submittal comments, in accordance with the UPF Design Review Plan.
- Provide well documented schedule basis by procurement packages, modules and/or commodities for the selection of "long lead" scope that is supported by the project schedule and demonstrates the needed on-site delivery times to support the UPF construction schedule.
- Pursuant to the approved CD-3B/3C Tailoring Strategy, complete Acquisition Plans (APs) or Acquisition Strategy (AS) documents for each major long-lead equipment/material category that describes the basis for the recommended acquisition approach (e.g., design/bid/build, design/build, or other) and subcontracting strategy (e.g., single or multiple awards, Basic Ordering Agreements, firm fixed price, cost plus, or other). The appropriate acquisition documents shall also adequately describe the proposed approach for conducting Factory Acceptance Tests, pre-installation integrated testing, vendor or on-site storage, and preventive maintenance.
- Risk analysis shall thoroughly define risks associated with procurement of each of the major equipment/material categories in advance of completing the final design and establishing a performance baseline. The risk items shall consider the Quality Level, complexity of the item being procured, vendor capabilities, and impact to the overall UPF project cost/schedule if the selected vendor fails to deliver a quality product on time.

The fee associated with this Earned Value at Milestone is reduced daily after March 30, 2017.

NNSA Review Duration: 150 Calendar Days.

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Submission Date	Approval Date [5]	Impact Date
PDSA Submittal and SER Approval			August 24, 2017	December 27, 2017	December 28, 2017
Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**	**Approval Acceleration Incentive (Calendar Days) [3]**		
$2,000,000	$0	+ $1,433,620	1-120 days SER Issued by DOE/NNSA: $11,947/day; $1,433,620 max		

Definition of Complete: The PDSA submittal shall be suitable for review by having the format and content prescribed by DOE-STD-3009-94. The PDSA approval shall meet the DOE-STD-1189-2008 and shall be approved by the NNSA Safety Basis Approval Authority by issuance of an SER such that the Conditions of Approval within the SER do not impact the start of nuclear construction.

The fee associated with this Earned Value at Milestone is only available until December 27, 2017.

NNSA Review Duration: 152 Calendar Days.

Deliverable			Submission Date	Approval Date [5]	Impact Date
Microwave Casting Furnace TRL-7 Submittal and Approval			August 5, 2017	October 5, 2017	November 30, 2017
Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**	**Approval Delay Reductions (Calendar Days) [4]**		
$1,153,053	$0	N/A	$20,590/day; $1,153,053 max		

Definition of Complete: The Technology Readiness Assessment (TRA) Report submittal, with supporting technical evidence that the TRL-7 Requirements identified in the Microwave Casting Furnace Technology Maturation Plan for achieving TRL-7 have been satisfactorily achieved, shall meet the criteria for content and format as defined in DOE Technology Readiness Assessment Guide 413.3-4A. The TRA Report approval shall meet the DOE Technology Readiness Assessment Guide 413.3-4A and shall be approved by the NNSA Program Secretarial Office by issuance of an approval letter. Pursuant to DMP Annex 1 - Rev 1, conduct the Depleted Uranium testing described in the UPF Microwave Casting Technology Maturation Plan, PL-EX-801768-A006, Rev. 0; UPF Microwave Casting Depleted-Uranium Test Plan PL-EX-801768-A008, Rev. 0; and Baseline Change Proposal 16P159, Depleted Uranium (DU) Testing of Microwave Casting to Demonstrate Technology Readiness 7 Revised.

The fee associated with this Earned Value at Milestone is reduced daily after October 5, 2017.

NNSA Review Duration: 31 Calendar Days.

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable	Submission Date	Approval Date [5]	Impact Date
SAB and PSF CD-2/3 Packages Submittal and Approval	September 5, 2017	January 31, 2018	March 30, 2018

Earned Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal	Approval Delay Reductions (Calendar Days) [4]
$3,437,000	$0	N/A	$59,258/day; $3,437,000 max

Definition of Complete: Critical Decision 2 and Critical Decision 3 requirements in Department of Energy Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* and the Secretarial Policy Memoranda *Project Management Policies and Principles*, dated June 8, 2015. Verification of completeness shall be performed by a series of reviews including a UPO Sufficiency Review, an Independent Cost Estimate team and an External Independent Review. Critical Decision 2 and Critical Decision 3 approval by the Project Management Executive or Chief Executive for Project Management as appropriate.

Additional requirements include:

- Processes, procedures and tools are in place and ready to support and oversee nuclear construction.
  - Procedures necessary to manage nuclear construction are issued and on-board staff have been trained.
  - Appropriate staffing levels and disciplines are identified, and plans are in place to hire, accommodate badging, office space and equipment, and computer hardware/software that would not hinder successful project execution.
- This completion criteria regarding staffing will be verified by the External Independent Review Team in accordance with Department of Energy Guide 413.3-9 U.S. Department of Energy Project Review Guide for Capital Asset Projects (see section 5.4 Approve Start of Construction Review (CD-3), paragraph A(3) Construction/Execution Planning).

The fee associated with this Earned Value at Milestone is reduced daily after January 31, 2018. The SAB/PSF CD-2/3 approval is a prerequisite for MPB stretch goal.

NNSA Review Duration: 148 Calendar Days.

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Submission Date	Approval Date [5]	Impact Date
MPB CD-2/3 Package Submittal and Approval			September 5, 2017	January 31, 2018	March 30, 2018
Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**	**Approval Acceleration Incentive (Calendar Days) [3]**		
$13,255,200	$0	+ $7,166,380 (includes SAB, PSF, and MPB CD-2/3 approval)	$69,720/day; $7,166,380 max (all schedule milestones must be completed to achieve stretch goal)		
			Approval Delay Reductions (Calendar Days) [4]		
			$229,293/day; $13,255,200 max		

Definition of Complete: Critical Decision 2 and Critical Decision 3 requirements in Department of Energy Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* have been completed and verified complete by an Independent Cost Estimate team and an Critical Decision 2 and Critical Decision 3 requirements in Department of Energy Order 413.3B *Program and Project Management for the Acquisition of Capital Assets* and the Secretarial Policy Memoranda *Project Management Policies and Principles*, dated June 8, 2015. Verification of completeness shall be performed by a series of reviews including a UPO Sufficiency Review, an Independent Cost Estimate team and an External Independent Review. Critical Decision 2 and Critical Decision 3 approval by the Project Management Executive or Chief Executive for Project Management as appropriate.

Additional requirements include:

- A non-project expense (NPE) estimate shall be prepared for all UPF scope and included with the UPF CD-2 documentation. This estimate shall be signed by the impacted CNS program owners (funding source; requires CNS coordination with NPO) indicating responsibility for obtaining and providing the funding.
- Processes, procedures and tools are in place and ready to support and oversee nuclear construction.
  - Procedures necessary to manage nuclear construction are issued and on-board staff have been trained.
  - Appropriate staffing levels and disciplines are identified, and plans are in place to hire, accommodate badging, office space and equipment, and computer hardware/software that would not hinder successful project execution.
- This completion criteria regarding staffing will be verified by the External Independent Review Team in accordance with Department of Energy Guide 413.3-9 U.S. Department of Energy Project Review Guide for Capital Asset Projects (see section 5.4 Approve Start of Construction Review (CD-3), paragraph A(3) Construction/Execution Planning).

The fee associated with this Earned Value at Milestone is reduced daily after January 31, 2018.

NNSA Review Duration: 148 Calendar Days.

Schedule Milestones – Deliverable Summary [1] (continued)

NOTES:

1 – Schedule Milestones and Schedule Stretch Goals are tied to deliverable dates and definitions of complete.

2 – Earned Value at Impact ($0) is achieved on the Impact Date for each milestone for circumstances related and attributable to CNS performance.

3 – Approval Acceleration Incentives are accelerations in achieving Government approval where the acceleration results from early submission of deliverables and/or efficiencies in Government review and approval enabled by the Contractor.

4 – Approval Delay Reductions are delays in achieving Government approval where the delays result from circumstances attributable to CNS performance.

5 – Approval Dates assume high quality deliverables, with no deficiencies (major findings or findings: attributable to significant scope, cost, schedule or safety impacts) that would prevent the project team from executing baseline.

Schedule of Values – Fee Liquidation Schedule [1]

When Paid	Scope	Cost Objective			Schedule Objective	
		Provisional	Earned	Unliquidated	Provisional	Earned
Annex Signed	DMP Work Completed.	$5,110,000	-	$2,191,000	$7,299,000	-
On Completion	63.0% Design Complete as measured by EPPR (in hours). As per March 2016 plan.[3, 4]	$1,544,000	-	$661,000	-	-
On Completion	69.6% Design Complete as measured by EPPR (in hours). As per June 2016 plan.[3, 4]	$1,544,000	-	$661,000	-	-
On Completion	NNSA Acceptance of *Preliminary Design Review*. As per September 2016 plan.[5, 6]	$1,544,000	-	$661,000	-	-
On Completion	81.0% Design Complete as measured by EPPR (in hours). As per December 2016 plan.[3, 4]	$1,544,000	-	$661,000	-	-
On Completion	86.7% Design Complete as measured by EPPR (in hours). As per March 2017 plan.[3, 4]	$1,544,000	-	$661,000	-	-
On Completion	91.2% Design Complete as measured by EPPR (in hours). As per June 2017 plan.[3, 4]	$1,544,000	-	$661,000	-	-
On Completion	NNSA Acceptance of *Final Design Review*. As per September 2017 plan.[5, 7]	$1,552,532	-	$630,355	-	$21,688
On Submission	PSDR Submitted for DOE Approval	-	-	-	$1,000,000	-
On Approval [2]	**PSVR Issued by DOE**	**-**	**-**	**-**	**-**	**$1,000,000**
On Submission	MEB CD-2/3 Package Submitted to DOE for Approval	-	-	-	$1,000,000	-
On Approval [2]	**MEB CD-2/3 Package Approved**	**-**	**-**	**-**	**-**	**$1,000,000**
On Submission	CD-3B and CD-3C Glovebox and Skid Long Lead Procurements Submitted for DOE Approval	-	-	-	$1,000,000	-
On Approval [2]	**CD-3B and CD-3C Glovebox and Skid Long Lead Procurements Approved by DOE**	**-**	**-**	**-**	**-**	**$1,000,000**
On Submission	Microwave Casting Furnace TRL-7 Submitted to DOE for Approval	$153,053	-	-	$1,153,053	-
On Approval [2]	**Microwave Casting Furnace TRL-7 Approved by DOE**	**-**	**-**	**-**	**-**	**$1,153,053**

Schedule of Values – Fee Liquidation Schedule [1] (continued)

When Paid	Scope	Cost Objective			Schedule Objective	
		Provisional	Earned	Unliquidated	Provisional	Earned
On Submission	PDSA Submitted to DOE for Approval				$2,000,000	-
On Approval [2]	**SER Issued by DOE**				**-**	**$2,000,000**
On Submission	SAB and PSF CD-2/3 Packages Submitted to DOE for Approval	-	-	-	$3,437,000	-
On Approval [2]	**SAB and PSF CD-2/3 Packages Approved**	**-**	**-**	**-**	**-**	**$3,437,000**
On Submission	MPB CD-2/3 Package Submitted to DOE for Approval	-	-	-	$5,990,500	-
On Approval [2]	**MPB CD-2/3 Package Approved**	**-**	**-**	**-**	**-**	**$13,255,200**
Journal Correction	Procurement Pool Removal			($77,176)	($89,789)	($77,177)
Journal Correction	DMP Closure			($324,786)		($324,786)
TBD	Final Fee Determination [9]	$16,079,585	UPF CD-4 [8]	$6,385,393	$22,464,978	$22,464,978

NOTES:

1 – Schedule Milestones and Schedule Stretch Goals are tied to deliverable dates and definitions of complete.

2 – All DOE/NNSA approvals are pursuant to DOE O 413.3B and assume high quality deliverables, with no deficiencies (major findings or findings: attributable to significant scope, cost, schedule or safety impacts) that would prevent the project team from executing baseline.

3 – Percent Design Complete will continue to be calculated in accordance with the method used for reporting percent design complete in the Monthly Project Review. For the provisional cost fee payments scheduled for the quarters ending March 2016, June 2016, December 2016, March 2017 and June 2017, UPO will assess the percent design complete reported. The assessment will consist of a sampling of EPPR gates reported as complete since the last assessment and comparing completed gates with project and design documentation posted in InfoWorks. The assessment will also consist of a sampling of EPPR gates reported as partially complete, and comparing reported gate progress with the remaining duration shown in the forecast schedule.

4 – Percent Design Complete shall be calculated based on engineering hours planned and engineering hours earned as follows:

- CNS determined the usable design completed before the July 1, 2014 contract transition is 2,240,626 hours. This value was reviewed and accepted by UPO. This value represents both the engineering hours planned and earned prior to July 1, 2014.

- The source for CNS engineering hours planned and earned is EPPR.
- CNS engineering hours planned and earned will include Engineering Management.
- Vendor design to be completed post March 2018 is not included in the calculation.
- As a point of reference, for this calculation, the engineering hours planned as of August 2015 month end close is 6,524,834, and the hours earned is 3,295,915, or 50.5% design complete.
- The Percent Design Complete values on the Fee Liquidation Schedule were taken from January 2016 month end reporting data.

5 – For the quarters ending September 2016 and September 2017, the Preliminary Design Review and the Final Design Review conducted by UPO will be used as the assessment for the provisional cost fee payment.

6 – **Preliminary Design Completion Milestone - Definition of Complete:** Engineering Deliverables have advance to preliminary design status as specified in UPF Design Review Plan PL-EG-801768-A006. The Preliminary Design Review Assessment has verified and documented the design to meet the Review Plan CRAD's in a Report. Type A Findings shall be resolved or corrected prior to approval of the Preliminary Design Completion Project Milestone per the UPF Design Review Plan PL-EG-801768-A006.

7 – **Final Design Completion Milestone - Definition of Complete:** Engineering Deliverables have advanced final design status as specified in UPF Design Review Plan PL-EG-801768-A006. The Final Design Review Assessment has verified and documented the design to meet the Review Plan CRAD's in a Report. Type A Findings shall be resolved or corrected prior to approval of the Final Design Completion Project Milestone per the UPF Design Review Plan PL-EG-801768-A006.

8 – NNSA will liquidate the remaining cost objective fee on the last CD-2/3 approval; however, all fee associated with cost objective is provisional to CD-4.

9 – NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report.

Reporting Requirements	
The Federal Project Director and Contracting Officer, with inputs from other Government personnel, will verify the on time submission of project reports that meet DOE/NNSA requirements contained in the Data Item Descriptions (DIDs). The Government will perform this verification by comparing the DOE/NNSA requirements contained in the following DIDs to the deliverables provided by the Contractor:	
Data Item Description	Title
DID-ENG-0001/T	As-Built Configuration List
DID-ENG-0002/T	As-Built Drawings
DID-ENG-0003/T	Code of Record Document
DID-ENG-0004/T	Conceptual Design Report
DID-ENG-0009	Design Master Record Index
DID-ENG-0010	Facility Design Description
DID-ENG-0012/T	Final Design Review
DID-ENG-0014/T	Interface Control Document
DID-ENG-0015/T	Preliminary Design Report
DID-ENG-0017/T	System Design Description
DIE-ENG-0018/T	Technology Readiness Assessment
DID-ENG-0019/T	Reliability, Availability, Maintainability, and Inspectability
DID-ENG-0020/T	Design Review Plan
DID-ENG-0021/T	Engineering Drawings
DID-ENG-0023/T	Equipment List
DID-ENG-0025/T	Design Change Control Plan
DID-ENG-0026	Request for Deviation (Request for Variance)

OT-ENG-1027	Design Criteria
OT-ENG-1028	Engineering Execution Plan
OT-ENG-1029	Material & Energy Balance Design Analysis Calculations
OT-ENG-1030	Process Narratives
OT-ENG-1031	Scope of Facilities
OT-ENG-1032	System Requirement Document
OT-ENG-1003	Other Basis Records
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0002/T	Configuration Management Document Pick List
DID-PM-0003	Configuration Management Plan
DID-PM-0004/T	Project Completion Verification
DID-PM-0005	Document Control Plan
DID-PM-0006/T	Earned Value Management (EVM) Plan
DID-PM-0008	Long Lead Items List
DID-PM-0009	Systems Engineering Management Plan
DID-PM-0010	Procurement Plan
DID-PM-0011/T	Project Acquisition Plan
DID-PM-0012	Project Execution Plan
DID-PM-0013/T	Project Management Plan
DID-PM-0014/T	Project Performance Baseline Control Plan
DID-PM-0015/T	Records Management Plan
DID-PM-0016/T	Requirements Management Plan

DID-PM-0017/T	Risk Analysis Report
DID-PM-0018/T	Risk Management Plan
DID-PM-0019/T	Risk Register
DID-PM-0022/T	Work Breakdown Structure and WBS Dictionary
DID-PM-0023/T	Critical Path Schedule
DID-PM-0024	Fixed Price Contract Milestone & Schedule Status Report
DID-PM-0026/T	Monthly Project Report
DID-PM-0027/T	Resource Loaded Schedule
DID-PM-0028	Statement of Work
DID-PM-0029/T	Total Project Cost
DID-PM-0030/T	Emergency Management Plan
DID-PM-0031/T	Quality Assurance Plan
OT-PM-1031	Contractor Assurance System
DID-PM-0032	Technology Maturation Plan
DID-PM-0033/T	Value Engineering Plan
OT-PM-1033	Value Engineering Program Status Report
DID-PM-0034	Communications Management Plan
DID-PM-0035/T	Project Funding Requirements Profile
DID-PM-0036/T	Federal Project Director Monthly Project Review
DID-PM-0037/T	Data Management Plan
DID-PM-0039/T	Master Document List
DID-PM-0040/T	Life Cycle Cost

DID-PM-0041/T	Project Closeout Report
DID-PRG-0001	Checkout, Testing, and Operations Acceptance
DID-PRG-0003/T	Key Performance Parameters
DID-PRG-0004/T	Key Project Assumptions
DID-PRG-0005	Operations and Maintenance Configuration Management
DID-PRG-0006/T	Performance Baseline Development Plan
DID-PRG-0009/T	Transition to Operations Plan
DID-PRG-0011	Program Requirements Document
DID-PRG-0014/T	Analysis of Acquisition Alternatives
DID-PRG-0015/T	Project Master Schedule
DID-PRG-0016	Performance Work Statement
DID-PRG-0017	Contract Data Requirements List
DID-PRG-0019/T	Project Data Sheet
DID-PRG-0020/T	Contracting Strategy Analysis
DID-PRG-0021	Monthly Status PARS II Report
DID-PRG-0022/T	Integrated Program Management Report (IPMR)
DID-SAF-0001	Conceptual Safety Design Report
DID-SAF-0003	Operational Readiness Review Implementation Plan
DID-SAF-0004	Final Hazards Analysis Report
DID-SAF-0005	Hazardous Analysis Report
DID-SAF-0006	Preliminary Documented Safety Analysis
DID-SAF-0007	Preliminary Hazards Analysis

DID-SAF-0008	Preliminary Safety Design Report
DID-SAF-0009	Safety Design Strategy
DID-SAF-0010	Technical Safety Requirements
DID-SAF-0011	Documented Safety Analysis
DID-SAF-0012/T	Readiness to Proceed (RTP) Memorandum
DID-SAF-0013/T	Contractor Operational Readiness Review Plan of Action
DID-SAF-0014/T	Integrated Safety Management Plan
DID-SAF-0015	Safety Design Control Plan
DID-SAF-0016	Fire Hazards Analysis
DID-SAF-0017/T	Occurrence Report
DID-SAF-0018/T	Lessons Learned Report
DID-SAF-0019/T	Occupational Safety Plan and Reporting
OT-ADM-1001	Conference Minutes
DID-SEC-0001/T	Final Security Vulnerability Assessment
DID-SEC-0002/T	Preliminary Security Vulnerability Assessment
DID-SEC-0003/T	Security Plan
DID-SEC-0004/T	Safeguards and Security Requirements
OT-SEC-1006/T	Comprehensive Emergency Management System
DID-ITS-0001	Information Technology Management Plan
DID-EPC-0001	Environmental Compliance Strategy
DID-EPC-0002	Environmental Management System Documentation
DID-EPC-0003	Final NEPA Documentation

DID-EPC-0004	NEPA Compliance Strategy
DID-CST-0001/T	Pre-Construction (Site Preparation) Plan
DID-CST-0002/T	Construction Management Plan
DID-CST-0003/T	Construction Work Authorization Plan
DID-CST-0004/T	Construction Safety Plan
OT-CST-1005	Daily Construction Progress Report
OT-CST-1006	Weekly Construction Working Schedules
	Monthly Project Briefing Package to NA-APM
	Monthly Labor Charges Report
	Weekly Status Report

APPENDIX B

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

DMP Incentive Fee - Terms

The Government will use the following CPIF Model terms for DMP fee calculation.

P_T = Target Price // Estimated Target Price ($) if all available fee earned.

F_A = Available Fee // Combined unrealized Target Fee and Schedule Fee ($).

C_T = Target Cost // Negotiated Target Cost ($).

F_T = Target Fee // Negotiated Target Fee ($).

F_{SM} = Schedule Fee Milestones // Schedule Fee Milestones ($).

F_{SSG} = Schedule Fee Stretch Goals // Schedule Fee Stretch Goals ($).

F_{MAX} = Maximum Fee // *Maximum Fee ($) realized for Level 2 Under Target Cost.*

F_{MIN} = Minimum Fee // *Minimum Fee ($) realized for Level 2 Over Target Cost.*

Level 1 Under Target Cost (C_{UT1}) // Actual Costs ($) before L1- Fee realized.

Level 2 Under Target Cost (C_{UT2}) // Actual Costs ($) when Maximum Fee realized.

Level 1 Over Target Cost (C_{OT1}) // Actual Costs ($) before L1+ Fee realized.

Level 2 Over Target Cost (C_{OT2}) // Actual Costs ($) when Minimum Fee realized.

C_{TAC} = Total Allowable Cost // Actual Cost ($) the Contractor can claim.

F_{TA1} = Target Fee Adjustment // Calculated Level 1 Adjustment ($) for Under/Over.

F_{TA2} = Target Fee Adjustment // Calculated Level 2 Adjustment ($) for Under/Over.

F_{ATF} = Adjusted Target Fee // Calculated Fee Adjustment ($) applied to Target Fee.

F_{AFF} = Adjusted Final Fee * // Calculated Fee Adjustment ($) for Schedule.

P_C = Contract Price ** // Calculated Contract Price ($) after Final Fee applied.

* Final fee calculations, minus any adjustments, will be made using Government CPIF model.

** Earned fee rules and adjustments apply in determining final Contract Price.

Share Ratios: Government Under/Over Target Shares, expressed as the Government percentage share of cost risk over the Contractor percentage share of cost risk.

Under Target Share = S_{GU}/S_{CU} // Government Share (%)/Contractor Share (%).

Over Target Share = S_{GO}/S_{CO} // Government Share (%)/Contractor Share (%).

Level 1 Under Target Share Ratio (S_{GU1}/S_{CU1}) // Level 1 Under Target Share Ratio

Level 1 Over Target Share Ratio (S_{GO1}/S_{CO1}) // Level 1 Over Target Share Ratio

Level 2 Under Target Share Ratio (S_{GU2}/S_{CU2}) // Level 2 Under Target Share Ratio

Level 2 Over Target Share Ratio (S_{GO2}/S_{CO2}) // Level 2 Over Target Share Ratio

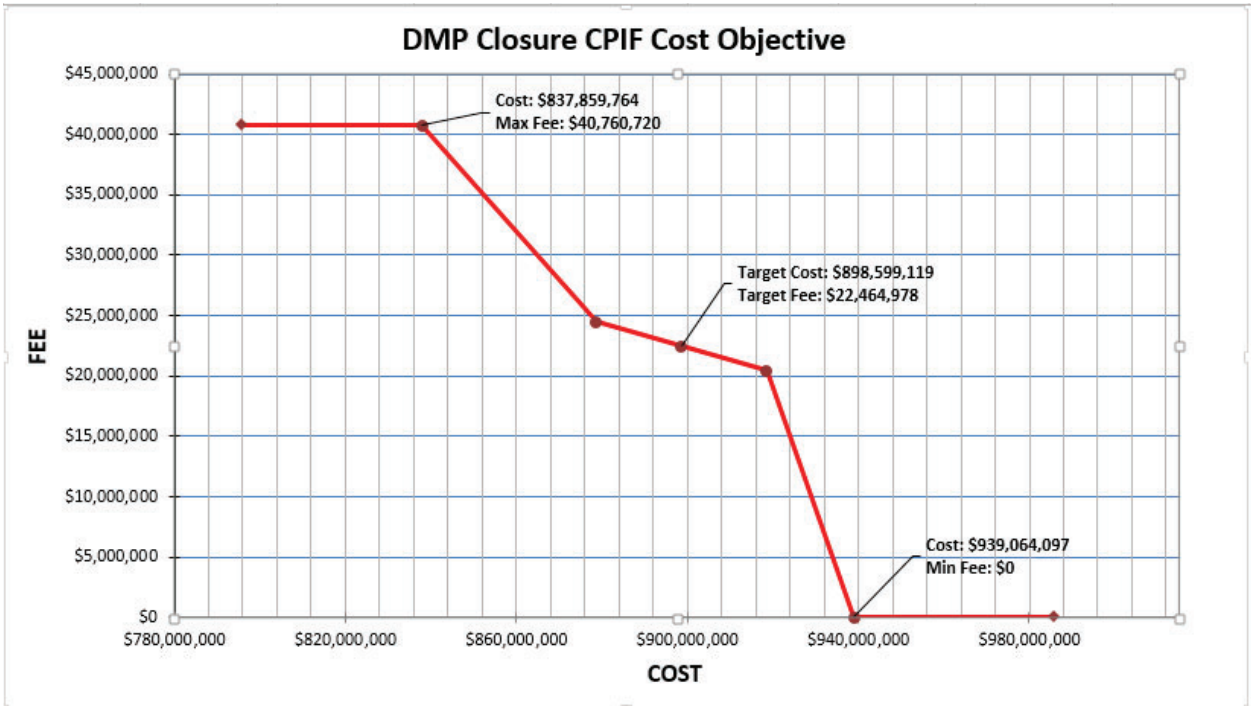


Chart Table Data								
		Chart Range	**Max fee**	**L1 - Range**	**Target**	**L1 + Range**	**Min fee**	*Chart Range*
	Cost Data Points	*$795,966,776*	$837,859,764	$878,599,119	$898,599,119	$918,599,119	$939,064,097	*$986,017,302*
	Fee Data Points	*$40,760,720*	$40,760,720	$24,464,978	$22,464,978	$20,464,978	$0	*$0*
	Total Cost		**$837,859,764**	**$878,599,119**	**$898,599,119.00**	**$918,599,119**	**$939,064,097**	
	Cost Fee		$40,760,720	$24,464,978	$22,464,978.00	$20,464,978	$0	
	% Fee		4.86%	2.78%	2.50%	2.23%	0.000%	
	Sched Fee Milestones		$22,464,978	$22,464,978	$22,464,978.00	$22,464,978	$22,464,978	
	% Fee Milestones		7.55%	5.34%	5.00%	4.67%	2.39%	
	Total Fee		**$63,225,698**	**$46,929,956**	**44,929,956.00**	**$42,929,956**	**$22,464,978**	
	Total Price		**$901,085,462**	**$925,529,075**	**943,529,075.00**	**$961,529,075**	**$961,529,075**	

Figure 1: DMP CPIF Cost Objective Graph

APPENDIX C
GOVERNMENT OVERSIGHT MODEL

Cost Objective: The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but not limited to:

- Complete authorized scope in accordance with the approved Performance Measurement Baseline; provide timely project reporting.
- Manage a deliverable-based Work Breakdown Structure (WBS); cost control accounts, work packages and planning packages consistent with WBS/scope.
- Use established DOE earned value methods, measure work accomplishment, and assess project performance; perform variance analysis to identify, correct, and report problems; and regularly evaluate Estimates at Completion (EAC).
- Expend funds and resources that optimally provide the maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant to the GAO Best Practices for Developing and Managing Capital Costs Guide and DOE G 413.3-21, Cost Estimating Guide; consider life cycle cost when evaluating proposed project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, e.g., designs, specifications, plans, procurement, construction, testing, and commissioning; demonstration of implementation of an approved DOE O 414.1D Quality Program.
- Identify, quantify and mitigate technical, programmatic, schedule, and cost risks.

APPENDIX C - Continued

Schedule Objective: The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix, Appendix N, DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but not limited to:

- Execute scope in accordance with NNSA approved Project Execution Plans.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify Work Breakdown Structure (WBS) elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, and technology, procurement, construction, testing, and commissioning); incorporate labor, material and equipment resources and ensure reasonable/available.
- Manage a credible critical path as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is reasonable. Incorporate subcontracted activity into schedule/critical path to ensure visibility to the Government.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a Federal, State, or local regulatory agency; excellent safety DART/TRC rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to CO/FPD.
- Support USACE construction in accordance with NNSA approved Execution Plans and Procedure UPO-95-A026, Interfaces Between UPO, M&O and USACE for UPF Construction.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication and construction expeditiously without major problems or delays (Title II).
- Provide Resident Engineering representation as directed to support Construction

and oversee the design's intent and requirements; exceptions are rare to non-existent without problems or delays (Title III).

- Perform pre-award/award/post-award, surveillance/oversight functions to support and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.
- Identify, quantify and mitigate project schedule risks; perform schedule risk assessments to predict the probability of completing on time.

Uranium Processing Facility (UPF)

Site Readiness (SR)
Subproject Fee Structure

Annex 2

National Nuclear Security Administration

[redacted]
Date

Brian P. Reilly
UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]
Date

Dale E. Christenson
Federal Project Director
NNSA, UPF Project Office

[redacted]
Date

Scott S. Crawford
UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]
Date

Michael C. Bocskovits
Contracting Officer
NNSA, UPF Project Office

Revision Log

Revision	Date	Description	Total Pages	Affected Pages
0	December 24, 2015	Initial issue.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	All

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3. Approach 1
4. Establishing Annex 2
5. Annex Oversight 2
6. Change Procedures 2

APPENDIX A A-1

SR PERFORMANCE OBJECTIVES

APPENDIX B B-1

FIXED FEE STRUCTURE

APPENDIX C C-1

GOVERNMENT OVERSIGHT MODEL

1. Introduction

The Uranium Processing Facility (UPF) Site Readiness (SR) Subproject, herein referenced as “SR,” was authorized by the National Nuclear Security Administration (NNSA) to advance the Site Preparatory activities. The SR CD-2/3 scope was divided between Consolidated Nuclear Security, LLC (CNS), herein referenced as “Contractor,” and the United States Army Corps of Engineers (USACE), as defined in the SR Execution Plan, PL-PM-801768-A015, which establishes the formal plan for executing the subproject.

The SR scope supports the UPF Project by completing early key critical-path site preparation construction work so that the Project site will be ready for subsequent nuclear facility construction. The SR scope is best characterized as standard commercial work, and does not implement new technologies. The SR scope shall be managed through the use of the Project’s construction management baseline in order to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base (CBB), Statement of Work, and Key Performance Parameters (KPPs) that must be achieved by the Critical Decision (CD) 4 date.

The SR scope shall include subproject optimization of Y-12 activities in support of the Enriched Uranium Mission (EUM), are met with timely, cost effective, high quality deliverables as defined in the Contract and in accordance with DOE O 413.3B and ANSI/EIA-748B.

2. Purpose

The SR Fee Structure, herein referenced as “SR Annex” (Annex 2), is a subset of the overarching Contract, Section J, Appendix B-2, “UPF Fee Plan,” that documents the fee structure arrangement, in which SR performance was evaluated. The purpose of the SR Annex is to document the fixed fee structure, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a “contract price” for the SR scope.

3. Approach

The desired performance of the Contractor is to deliver high quality SR deliverables (technical requirements) and/or integration support, which will ultimately deliver a UPF fully capable of meeting all DOE/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The desired goal is to properly incentivize the Contractor for scope already completed, by establishing a fair and reasonable Contract Price for meeting the SR scope.

4. Establishing Annex

The SR Annex shall be approved and incorporated into the Contract by modification at Section J, Appendix B-2, UPF Fee Plan by the Contracting Officer (CO).

The Government will primarily incentivize the Contractor using the following fee arrangement, unless otherwise documented in the Annex:

- Fixed Fee

5. Annex Oversight

The Government Oversight Model, Appendix C, describes the approach NNSA used for conducting surveillance and oversight of SR Contract deliverables, in order to ensure the Contractor deliverables meet the UPF Project requirements. The CO and Contracting Officer's Representatives (CORs), with input from functional area managers, reviewed and considered actual performance. The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives, i.e., final outcomes, are achieved. The CO/COR may notify the Contractor anytime during performance of the Contract to address cost, schedule, and/or performance concerns needing attention.

6. Change Procedures

The SR Annex may be updated as necessary during Contract performance. These updates may include, but not limited to, required changes caused by new authorized scope, project phasing, approved change control, and/or establishing/adjusting fee incentives and performance objectives. Any changes shall be codified by a Contract modification within Section J, Appendix B-2, UPF Fee Plan.

All changes, including SR Baseline Changes, are subject to the thresholds outlined in the UPF Project Execution Plan, PL-PJ-801768-A006, Appendix C, and the SR Execution Plan, PL-PM-801768-A015.

Appendix A

SR PERFORMANCE OBJECTIVES

Fee – Summary	
Contract Price (P_C), includes fixed fee	$12,908,530.00
Fixed Fee (F_F)	$436,520.00
NOTE: NNSA will make a Final Fee Determination after NNSA approval of SR CD-4 and acceptance of SR closeout report. For the purposes of this negotiated annex, all fee is considered earned upon full execution of SR annex and Contract modification.	

Scope – Summary
NOTE: The major SR scope tasks and responsibility for performing each task are defined in SR Subproject Project Execution Plan (PL-PM-801768-A015). A summary of the major scope elements are identified in the Work Break Down (WBS) summary section, with USACE having the majority of scope and CNS providing support services.

Critical Decision (CD)- Summary	
CD-4 Approval	February 28, 2015

Key Performance Parameters	
1	Bear Creek Road relocated and open to traffic, including a security vehicle turnoff.
2	New Potable water lines relocated, tied in, and delivering water to the City of Oak Ridge and Y-12 site.

3	Construction site cleared of electrical lines, and designated electrical and communication lines relocated and active.
4	Wet spoils area prepared and ready to receive wet spoils from construction excavation.
5	Wet spoils area ready to receive wet spoils from excavation.
6	Haul road constructed from UPF site to batch plant area and ready for trucks hauling concrete and other materials to the construction site.
7	Portal 10 excavated and retaining wall installed as designed.
8	Jack-and-bore installation of utility casing completed and ready for utility installation.
9	Wetland expansion/creation completed to mitigate wetland impacts.

Schedule Milestones - Summary	
Site Readiness CD-4 Completion/Ready for Use.	February 28, 2015

Work Break Down Structure (WBS)
1.07.02.09.25.05.10.10.95.40 – Electrical Utilities
1.07.02.09.25.05.10.10.95.50 – Civil Work
1.07.02.09.25.90.10.10 – Project Functional Support
1.07.02.09.25.40.91.10.10 – Title III Engineering
1.07.02.09.25.50.92.10.51.10 – Wet Spoils
1.07.02.09.25.50.92.10.51.20 – West Borrow Area
1.07.02.09.25.50.92.10.53 – Construction Equipment, Tools and Supplies
1.07.02.09.25.50.92.10.54 – Field Non-Manual

Reporting Requirements	
The Federal Project Director and Contracting Officer, with inputs from other Government personnel, will verify the on time submission of project reports that meet DOE/NNSA requirements contained in the Data Item Descriptions (DIDs). The Government will perform this verification by comparing the DOE/NNSA requirements contained in the following DIDs to the deliverables provided by the Contractor:	
Data Item Description	Title
DID-PM-0026/T	Monthly Project Report
DID-PRG-0022/T	Integrated Program Management Report (IPMR)
DID-PRG-0021	Monthly Status PARS II Report
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0004/T	Project Completion Verification
DID-PM-0027/T	Resource Loaded Schedule
DID-PM-0029/T	Total Project Cost
DID-PM-0036/T	Federal Project Director Monthly Project Review
DID-PM-0041/T	Project Closeout Report
	Monthly Project Briefing Package to NA-APM
	Monthly Labor Charges Report

APPENDIX B
FEE STRUCTURE

SR Fee Structure - Terms
The Government will use the following fee structure for SR fee calculation. P_C = Contract Price // Negotiated Contract Price ($), including fee. F_F = Fixed Fee // Negotiated Fixed Fee ($), based on negotiated actuals.

APPENDIX C
GOVERNMENT OVERSIGHT MODEL

Cost Objective: The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but not limited to:

- Complete authorized scope in accordance with the approved Performance Measurement Baseline; provide timely project reporting.
- Manage a deliverable-based Work Breakdown Structure (WBS); cost control accounts, work packages and planning packages consistent with WBS/scope.
- Use established DOE earned value methods, measure work accomplishment, and assess project performance; perform variance analysis to identify, correct, and report problems; and regularly evaluate Estimates at Completion (EAC).
- Expend funds and resources that optimally provide the maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant to the GAO Best Practices for Developing and Managing Capital Costs Guide and DOE G 413.3-21, Cost Estimating Guide; consider life cycle cost when evaluating proposed project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, e.g., designs, specifications, plans, procurement, construction, testing, and commissioning; demonstration of implementation of an approved DOE O 414.1D Quality Program.
- Identify, quantify and mitigate technical, programmatic, schedule, and cost risks.

APPENDIX C - Continued

Schedule Objective: The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix, Appendix N, DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but not limited to:

- Execute scope in accordance with NNSA approved Execution Plans.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify Work Breakdown Structure (WBS) elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, and technology, procurement, construction, testing, and commissioning); incorporate labor, material and equipment resources and ensure reasonable/available.
- Manage a credible critical path as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is reasonable. Incorporate subcontracted activity into schedule/critical path to ensure visibility to the Government.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a Federal, State, or local regulatory agency; excellent safety DART/TRC rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to CO/FPD.
- Support USACE construction in accordance with NNSA approved Execution Plans and Procedure UPO-95-A026, Interfaces Between UPO, M&O and USACE for UPF Construction.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication and construction expeditiously without major problems or delays (Title II).
- Provide Resident Engineering representation as directed to support Construction

and oversee the design's intent and requirements; exceptions are rare to non-existent without problems or delays (Title III).

- Perform pre-award/award/post-award, surveillance/oversight functions to support and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.
- Identify, quantify and mitigate project schedule risks; perform schedule risk assessments to predict the probability of completing on time.

Uranium Processing Facility (UPF)

Site Infrastructure and Services (SIS) Subproject Fee Structure

Annex 3 (Rev 3)

National Nuclear Security Administration

[redacted]
Date

John P. Howanitz
UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]
Date

Dale E. Christenson
Federal Project Director
NNSA, UPF Project Office

[redacted]
Date

Scott S. Crawford
UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]
Date

Philip M. Kirby
Contracting Officer
NNSA, UPF Project Office

Revision Log

Revision	Date	Description	Total Pages	Affected Pages
0	January 25, 2016	Initial issue.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	All
1	July 11, 2016	Target Cost/Fee adjustment for USACE Support beyond planned completion date.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	Header/Footer Appendix A and B
2	November 10,2016	Change to target cost/target fee realted to new CNS scope required to complete subcontractor installation of 48” storm water line.	Front matter, i-ii Body, 1-2; Appendix A, 1-16; Appendix B, 1-2; and Appendix C, 1-3	Appendix A-1, A-2, A-4, A-14 Appendix B-2
3	June 1, 2018	Change to target cost/target fee related to Procurement Pool removal.	Front matter, i-ii Body, 1-2; Appendix A, 1-16; Appendix B, 1-2; and Appendix C, 1-3	Appendix A-1, A-2, A-5 Appendix B-2

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SIS PERFORMANCE OBJECTIVES

APPENDIX B B-1

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

APPENDIX C C-1

GOVERNMENT OVERSIGHT MODEL

1. Introduction

The Uranium Processing Facility (UPF) Site Infrastructure and Services (SIS) Subproject, herein referenced as "SIS," was authorized by the National Nuclear Security Administration (NNSA) to advance the Site Preparatory activities initiated during the Site Readiness Subproject. The SIS CD-2/3 scope was divided between Consolidated Nuclear Security, LLC (CNS), herein referenced as "Contractor," and the United States Army Corps of Engineers (USACE), as defined in the SIS Execution Plan, PL-PM-801768-A030, which establishes the formal plan for executing the subproject.

The SIS scope supports the UPF Project by completing key critical-path site preparation construction work so that the Project site will be ready for subsequent nuclear facility construction. The SIS scope is best characterized as standard commercial work, and does not implement new technologies. The SIS scope shall be managed through the use of the Project's construction management baseline in order to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base (CBB), Statement of Work, and Key Performance Parameters (KPPs) that must be achieved by the Critical Decision (CD) 4 date.

The SIS scope shall support the Enriched Uranium Mission (EUM), with timely, cost effective, high quality deliverables.

2. Purpose

The SIS Fee Structure, herein referenced as "SIS Annex" (Annex 3), is a subset of the overarching Contract, Section J, Appendix B-2, "UPF Fee Plan," that documents the Performance Objectives and Cost Plus Incentive Fee (CPIF) arrangement, in which SIS performance will be evaluated. The purpose of the SIS Annex is to document the target cost and incentive fee structure, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a "contract price" for the SIS scope.

3. Approach

The desired performance of the Contractor is to deliver high quality SIS deliverables (technical requirements) and/or integration support, which will ultimately deliver a UPF fully capable of meeting all DOE/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The desired goal is to properly incentivize the Contractor to deliver SIS scope on/or under budget and on/or ahead of schedule, by establishing a reasonable Target Price, including Cost and Schedule Performance Objectives for meeting the SIS scope.

4. Establishing Annex

The SIS Annex shall be approved and incorporated into the Contract by modification at Section J, Appendix B-2, UPF Fee Plan by the Contracting Officer (CO).

The Government will primarily incentivize the Contractor using the following critical performance objectives, unless otherwise documented in the Annex:

- Cost
- Schedule

By employing these incentives, the Government expects to motivate the Contractor to aggressively manage resources as required in order to provide high-quality and timely completion of authorized scope and/or integration/support of all SIS deliverables. Eligibility and the amount of the incentive fee earned shall be dependent on the Contractor meeting or exceeding the established performance objectives. Failure to meet any of the established SIS Performance Objectives, Appendix A, may result in the Contractor's forfeiture of incentive fee for that assigned objective or element.

5. Annex Oversight

The Government Oversight Model, Appendix C, describes the approach NNSA will use for conducting surveillance and oversight of SIS Performance Objectives and Contract deliverables, in order to ensure the Contractor delivers high quality products and services that meet the UPF Project requirements. The CO and Contracting Officer's Representatives (CORs), with input from functional area managers, will measure how the key performance objectives of the Contract are met. The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives, i.e., final outcomes, are achieved. The CO/COR may notify the Contractor anytime during performance of the Contract to address cost, schedule, and/or performance concerns needing attention.

6. Change Procedures

The SIS Annex may be updated as necessary during Contract performance. These updates may include, but not limited to, required changes caused by new authorized scope, project phasing, approved change control, and/or establishing/adjusting fee incentives and performance objectives. Any changes shall be codified by a Contract modification within Section J, Appendix B-2, UPF Fee Plan.

All changes, including SIS Baseline Changes, are subject to the thresholds outlined in the UPF Project Execution Plan, PL-PJ-801768-A006, Appendix C, and the SIS Execution Plan, PL-PM-801768-A030, Table 4.5.

Appendix A
SIS PERFORMANCE OBJECTIVES

Fee – Summary	
Target Price (P_T), includes available fee	$26,284,967.00
Available Fee (F_A), only includes unrealized cost and schedule fee	$1,052,034.00
Note: NNSA will make a Final Fee Determination after NNSA approval of SIS CD-4 and acceptance of SIS closeout report. Cost and Schedule performance objectives apply to the project requirements being delivered and/or performed under this scope. For the purposes of this negotiated annex, all fee associated to the cost objective is provisional to the end of the subproject (SIS CD-4), subject to the final fee determination and Contract modification.	
Cost Objective Elements – 50%	
Target Cost (C_T)	$25,232,933.00
Target Fee (F_T)	$526,017.00
Under Target Cost (C_{UT})	$24,485,191.00
Under Target Share Ratio (S_{GU}/S_{CU})	50/50
Maximum Fee (F_{MAX})	$899,888.00
Over Target Cost (C_{OT})	$25,758,950.00
Over Target Share Ratio (S_{GO}/S_{CO})	0/100
Minimum Fee (F_{MIN})	$0
Schedule Objective Elements - 50%	
Schedule Fee (F_S)	$526,017.00

Target Price - Change Log			
Modification	**Target Cost**	**Avalable Fee**	**Target Price**
Rev 0	$24,000,000.00	$1,000,000.00	$25,000,000.00
Rev 1	$1,156,816.00	$48,202.00	$1,205,018.00
Rev 2	$79,279.00	$3,964.00	$83,243.00
Rev 3	($3,162.00)	($132.00)	($3,294.00)
	$25,232,933.00	$1,052,034.00	$26,284,967.00

Scope - Summary

The major SIS scope tasks and responsibility for performing each task are defined in CD-2/3 Request for UPF Project Site Demolition and Security Upgrades - Scope, Cost, and Schedule (PL-PM-80 I768-A025), CD-2/3 Request for UPF Project Concrete Batch Plant - Scope, Cost, and Schedule (PL-PM-80 I768-A041), CD-2/3 Request for UPF Construction Support Building - Scope, Cost, and Schedule (PL-PM-80 I768-A040), Letter of Direction (COR-ESH-4. 40. 2015-624559) Contracting Officer's Direction for the UPF Construction Support Building, and Technical Direction (COR-ESH-5.4.20 15-627981) UPF SIS, Construction Support Building.

NOTE: Major scope elements are identified in the Work Break Down (WBS) section.

Critical Decision (CD)- Summary

CD-4 Approval	April 30, 2018

Key Performance Parameters

1	Required grading and water management features have been constructed in accordance with the approved plans and specifications.
2	Security features for the Haul Road extension have been constructed and tested in accordance with the approved plans and specifications.
3	The Concrete Batch Plant has been installed and commissioned and is ready to support UPF construction.

4	The Construction Support Building has been constructed in accordance with the approved plans and specifications. (USACE scope, not part of this annex.)

Schedule Milestones - Summary	
Site Demolition and Security Upgrades	
VAS Gate and Portal 19 Complete and Ready for Use.	April 15, 2016
Monitoring Wells Plug and Abandonment Complete.	June 23, 2015
Building 9107 Demolition Complete.	June 17, 2015
Concrete Batch Plant	
Concrete Batch Plant Design Complete	March 31, 2016
Concrete Batch Plant Commissioning is Complete.	October 30, 2016
Construction Support Building	
Construction Support Building Performance Specification Complete.	March 2, 2015
Civil and Utility Design for Construction Support Building Complete.	October 22, 2015
Construction Support Building Beneficial Occupancy	November 20, 2017

Schedule Incentives *

	Earned Value at Milestone	Delay Reductions (Calendar Days)	Earned Value at CD-4 Impact **
Building 9107 Demolition & Monitoring Wells Plug and Abandonment	$15,000.00	N/A	$0
VAS Gate	$34,803.00	1-30 days late: $150/day; $4.5k Max 31-60 days late: $300/day; $18k Max ≥61 days late: $600/day; $30k Max	$0
Portal 19	$50,197.00	1-30 days late: $180/day; $5.4k Max 31-60 days late: $360/day; $21k Max ≥61 days late: $720/day; $45k Max	$0
Concrete Batch Plant	$270,000.00	1-30 days late: $1k/day; $30k Max 31-60 days late: $2K/day; $120k Max ≥61 days late: $3k/day; $200k Max	$0
Construction Support Building Support	$154,101.00	N/A	$0

NOTE: * Schedule incentives are tied to schedule milestones dates and WBS definitions of complete.
** CD-4 impacts directly related and attributable to CNS performance.

Schedule of Values – Fee Liquidation Schedule *

When Paid	Scope	Cost Objective			Schedule Objective	
		Provisional	Earned	Unliquidated	Provisional	Earned
Annex Signed	Building 9107 Demolition	$22,750.00	-	$9,750.00	-	$14,810.00
Annex Signed	Monitoring Wells Plug and Abandonment	$292.00	-	$125.00	-	$190.00
Annex Signed	Initial Construction Support Building (CSB) Support	$11,520.00	-	$4,938.00	-	$10,000.00
Annex Signed	Concrete Batch Plant Awarded	$28,438.00	-	$12,187.00	-	$16,000.00
On Completion	Concrete Batch Plant Design	$28,438.00	-	$12,187.00	-	$16,000.00
On Completion	VAS Gate	$75,833.00	-	$32,500.00	-	$34,803.00
On Completion	Portal 19	$109,375.00	-	$46,875.00	-	$50,197.00
On Completion	Concrete Batch Plant Commissioned and Accepted	$56,875.00	-	$24,375.00	-	$238,000.00
Rev 1 Signed	USACE Support through May 2016	$19,139.00		$8,203.00	-	$16,612.00
On Completion	48” Stormwater Line Installation	$1,387.00	-	$595.00	-	$1,982.00
On Completion	USACE Support to Achieve CSB Beneficial Occupancy **	$14,211.00	-	$6,090.00	-	$127,489.00
Journal Correction	Procurement Pool Removal	-	-	($66.00)	-	($66.00)
TBD	Final Fee Determination ***	$368,258.00	SIS CD-4	$157,759.00	-	$526,017.00

NOTE: * Schedule of values for provisional and earned fee are tied to Schedule Milestones dates and WBS definitions of complete.

** CNS shall provide written notice to the Contracting Officer whenever it has reason to believe that the costs it expects to incur under the USACE support control account will exceed 75% of budget. The USACE support to go estimate is based on services and durations recommended by SIS FPD. CNS shall have the burden of proof for demonstrating and providing the basis for any adjustments or unforseen conditions outside the June 2016 basis for USACE support to go, including detailed labor charges for all subdivided tasks. The parties may agree to adjust the USACE support budget prior to the final fee determination, including reportioning USACE Support services and/or revising the Annex as necessary. CNS shall true up the Contract Budget Base (Performance Measurement Baseline and Management Reserve) to reflect any unused USACE support budget, and return any unused portion to Federal Project Director contingency.

*** NNSA will make a Final Fee Determination, including any potential Target Cost/Target Fee adjustments, after NNSA approval of SIS CD-4 and acceptance of SIS closeout report.

Work Break Down Structure (WBS)									
WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	25				**SITE INFRASTRUCTURE & SERVICES (SIS)**
Description of Scope									
This includes Site Demolition & Security Upgrades, Concrete Batch Plant, and Construction Support Building.									

1	07	02	09	45	25	30			**SIS SITE DEMOLITION & SECURITY UPGRADES (SDS)**
Description of Scope									
This work breakdown structure (WBS) element consists of defined scope for site demolition and security upgrades in advance of start of UPF construction.									

1	07	02	09	45	25	30	05		**SIS CNS/BNI PERFORM SIS CIVIL & SECURITY MODIFICATIONS**
Description of Scope									
This Control Account is for CNS/BNI scope per the As-Approved CD package for the Site Demolition & Security Upgrades including building demolition/debris removal, LOTOs, Asphalt Removal/Recovery, Well P&A, new Security Portal 19, VAS Gate #5, Site Maintenance, and Project Integration support including subcontracts and materials as needed. (see WP/PP for additional details).									

1	07	02	09	45	25	30	05	10	SIS CNS/BNI Perform Building 9107 Isolations/LOTO for Demolition
Description of Scope									
This WP is for the CNS Maintenance group to perform remaining utility isolations prior to demolition of buildings listed in WP 1.07.02.09.45.25.30.05.15 and supply water for dust control during demo and debris removal.									

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS Maintenance	Completed	Completion for this WP is the final isolations for buildings listed in WP 1.07.02.09.45.25.30.05.15 and dust control. All work scope is complete.

1	07	02	09	45	25	30	05	15	SIS CNS/BNI S/C Perform Building 9107 Demolition
Description of Scope									
This WP encompasses a subcontractor to perform building demolition and removal of debris for the following areas: 1) 9107 office building and surface slab. 2) 9124 storage building.									

3) 9720-37 (ammunition bunker).
4) 9723-35, 9983-GX, 9983-88 (trailers) (utilities will be abandoned in place).
5) Perimeter fence and guard rails, except for guard rail parallel to PIDAS (per demo dwg).
6) Relocate/Demolish security features (per approved Security Feature changes).

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed-price Sub	1) Completed 2) Completed 3) Completed 4) Completed 5) Completed 6) Completed	Completion of demolition/relocation scope. All work scope is complete.

1	07	02	09	45	25	30	05	20	SIS CNS/BNI Perform Civil & Utility Site Work Modification

Description of Scope

This WP encompasses the CNS/BNI direct hire labor to perform civil/utility site work:

1) Removal of 6" depth of Asphalt in the following locations:
   - Bear Creek, Pine Ridge, and 9107 parking lots.
   - East/West detour.
   - BCR from Pine Ridge parking lot to West detour.
   - Asphalt will be ground/crushed for reuse at Y-12.
2) Installation of sanitary sewer line inside PA (Per Design).
3) Electrical demolition of Old BCR & Pine Ridge parking lot lights and feeder.
4) Install guardrail along East detour (~600 lf) and striping of road.
5) Install mineral aggregate or recovered asphalt base along Haul Rd. from BCR parking lot to VAS gate.

Method of Accomplishment	Status of Work Scope	Definition of Complete
1) Direct Hire/CNS 2) Direct Hire/CNS 3) Direct Hire/CNS 4) Fixed-price Sub 5) Direct Hire/CNS	1) Completed 2) Ongoing 3) Completed 4) Completed 5) Completed	Final acceptance of sanitary sewer line and utility work by CNS Y-12 as evidence by authorized signatures on the acceptance documents.

1	07	02	09	45	25	30	05	23	SIS CNS/BNI Procure Civil & Utility Site Work Material

Description of Scope

This WP is for material procurements based on MTOs associated with:

1) Installation of the Sanitary Sewer line inside PA.
2) Installation of Mineral Aggregate for Haul Rd from BCR parking lot to VAS gate.
3) Guardrail along East detour (~600 lf).
4) Any minor materials for the Asphalt Removal and Electrical Demo to support the labor listed in 1.07.02.09.45.25.30.05.20.

Method of Accomplishment	Status of Work Scope	Definition of Complete

Local Suppliers - Material Receiving Reports	1) Ongoing 2) Completed 3) Completed 4) Completed	Material Receipt / Inspection Reports signed by authorized CNS Y-12 representatives.

1	07	02	09	45	25	30	05	25	SIS CNS/BNI S/C Perform P&A Monitoring Wells

Description of Scope

This WP is for a subcontractor to Plug and Abandon (P&A) two existing groundwater monitoring wells located within the excavation and grading footprint along the bank east of 9107.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed-price Sub	Completed	Plug and Abandon for two wells.

1	07	02	09	45	25	30	05	30	SIS CNS/BNI S/C Procure & Install Portal 19

Description of Scope

This scope includes procurement and installation of a new security Portal 19 on the haul road to control access. Includes guard building, fences, gates, walkup, and security equipment.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed-price Sub	Ongoing	Final acceptance of the new Security Portal 19 by CNS Y-12 as evidenced by authorized signatures on the acceptance documents.

1	07	02	09	45	25	30	05	35	SIS CNS/BNI Procure VAS Gate Bulks

Description of Scope

This WP is for bulk material procurements based on MTOs associated with installation of Vehicle Arresting System (VAS) Gate # 5 including required electrical materials and grading, excavation, asphalt and concrete placement materials. This WP does not include the purchase of the VAS Gate.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Local Suppliers - Material Receiving Reports	Ongoing	Material Receipt / Inspection Reports signed by authorized CNS Y-12 representatives.

1	07	02	09	45	25	30	05	36	SIS CNS/BNI Install VAS Gate

Description of Scope

This WP is for CNS/BNI direct hire labor to install the Vehicle Arresting System (VAS) Gate # 5 and associated electrical service, associated grading, excavation, asphalt, and concrete, relocation of a revetment, installation of Response Road, construct a Security Vehicle parking position, and the barrier wall at VAS Gate #5. Also included in this WP is the labor associated with VAS Gate #5 Construction Testing.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Direct-hire labor	Ongoing	Final acceptance of the new 40' VAS Gate #5 by CNS Y-12, as evidenced by authorized signatures on the acceptance documents.

1	07	02	09	45	25	30	05	37	SIS CNS/BNI Procure VAS Gate & Wall Barrier

Description of Scope

This WP is for procurement of the VAS Gate and Barrier Wall for installation of Vehicle Arresting System (VAS) Gate # 5 based specifications. This WP does not include the material purchase associated with VAS Gate #5 electrical supply and grading/finish.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Purchase order - Material Receiving Reports	Ongoing	Material Receipt / Inspection Reports signed by authorized CNS Y-12 representatives.

1	07	02	09	45	25	30	05	40	SIS Field Distribs

Description of Scope

This WP is for CNS/BNI scope during the As-Approved CD period for CNS/BNI SIS effort:

1) UPF Site maintenance, including weed eating and mowing of subcontractor's yard during CNS/BNI effort on SIS.
2) Maintenance of UPF site roads and walkways (safety barriers, traffic devices, misc. support) during CNS/BNI effort on SIS.
3) Field communications maintenance.
4) Purchase of small tools, consumables, and misc. materials for CNS/BNI effort on SIS.
5) Purchase of safety supplies (e.g., PPE): hard hats, gloves, glasses, first aid supplies for CNS/BNI effort on SIS.
6) Field Communications purchase, including two-way radios, wireless utilities (radios and computers will be provided to USACE) covering the SIS CD approved performance period.
7) General Services Administration (GSA) vehicle agreements.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct labor, subcontracts, and BPS purchases, GSA agreements. Distribs.	Ongoing	CD-4 approval from the DOE/NNSA Project Management Executive.

1	07	02	09	45	25	30	05	50	SIS Field Non-Manual

Description of Scope

This WP is for CNS/BNI Field Construction Management during the As-Approved CD period for CNS/BNI SIS effort including:

1) Construction Superintendents, Field Engineers, Subcontract Technical Representatives, field

administrative support and field document management center. 2) Field support provided by functional organization staff including Field Procurement, Quality Control (QC), Project Controls, and ES&H. 3) Inspections in the field by the QC organization will ensure appropriate level of quality. 4) Maintenance (Y-12 Infrastructure) for tie-in of utilities, lock-out/tag-out of plant systems, and utility disconnects not specified in other WPs associated with SIS.		
Method of Accomplishment	**Status of Work Scope**	**Definition of Complete**
CNS/BNI Const. Direct Staff	Ongoing	CD-4 approval from the DOE/NNSA Project Management Executive.

1	07	02	09	45	25	30	05	60	SIS Field Non-Manual Other Costs
Description of Scope									
This WP is for CNS/BNI site services such as Security, Fire Protection, Medical, Refuse/Recycling, Waste Management and RADCON during the As-Approved CD period for CNS/BNI SIS effort. Includes Site Usage Fee for BNI, S/C Non Manual and USACE FNM resources on-site.									
Method of Accomplishment			**Status of Work Scope**				**Definition of Complete**		
CNS/BNI contractor will provide security and Fixed Unit Rate subcontracts for service subcontracts			Ongoing				CD-4 approval from the DOE/NNSA Project Management Executive.		

1	07	02	09	45	25	30	15		**SIS CNS/BNI SIS PROJECT FUNCTIONAL SUPPORT**
Description of Scope									
This Control Account is for CNS/BNI scope per the As-Approved CD package for project management and functional support for the defined site infrastructure and services scope.									

1	07	02	09	45	25	30	15	10	SIS Project Integration
Description of Scope									
This WP is for project functional organizations to provide support for the CNS/BNI authorized scope during the As-Approved CD period for CNS/BNI SIS effort. This includes project management support; Project Controls baseline management support, change control support, and SIS reporting; Project Services document control and records management system; Procurement award and management of designated site infrastructure and services subcontracts (subcontract administration is included with each subcontract); Environment, Safety & Health (ES&H) management and integration for health, safety, and environmental compliance; CNS Maintenance interface support; and Security derivative classifiers for review of project documents. This WP also includes CNS/BNI functional organization support.									
Method of Accomplishment			**Status of Work Scope**				**Definition of Complete**		
CNS/BNI contractor staff -Passage of Time			Ongoing				CD-4 approval from the DOE/NNSA Project Management Executive.		

1	07	02	09	45	25	30	15	30	SIS Title III Engineering

Description of Scope

This WP is for Title III Engineering support during the As-Approved CD period for CNS/BNI SDS effort consisting of Engineering activities required to assure that SDS activities are executed in accordance with plans and specifications for scope executed under CNS authority.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff and BOA subcontractors	Ongoing	CD-4 approval from the DOE/NNSA Project Management Executive.

1	07	02	09	45	25	30	15	40	SIS USACE Support

Description of Scope

This WP is for CNS/BNI Project Integration (Project Management, Project Controls, etc.), Title III, Field Staff and Coordination, RADCON, Security Force/Canine search support, and other CNS/BNI services required during and as authorized in the As-Approved CD period to directly support the following SIS project scopes being executed by the USACE:

1) Building 9107 hillside excavation to specified grade level after demolition of Building 9107.
2) Demolition of specified portion of existing underground 24-inch (approx. 650LF) and 16-inch (approx. 600LF) potable water lines after new potable water lines are tied-in (Site Readiness scope).
3) Demolition of NNSA authorized site structures, including fencing, concrete curbing, concrete walks, guardrail, and other site appurtenances.
4) Installation of new storm drain line C which includes 48-inch RCP, and JC-3 and JC-4.
5) Installation of new storm drain line which includes C-4, SB-3, 24-inch RCP, and 24-inch HDPE Piping.
6) Installation of B-13 and temporary 24-inch HDPE storm drain piping.
7) Installation of Sanitary Sewer line MHB-7 to MHB-4.
8) Installation of Storm Drain Line G, including SB-6.
9) Perform erosion and sediment control and water management for USACE scope of work.
10) Installation of Sediment Basin 4 and associated outlet control structure.
11) Demolition and removal (excluding asphalt removal) of unused stretch of Phase I BCR that extends west beyond the tie-in on the east of BCR relocated as part of Site Readiness.
12) Installation of new storm drain line K which includes 48-inch RCP, and JK-2, JK-3, and JK-4.
13) Maintenance of West Borrow area, Wet Spoils area, and Haul Road during use by USACE.
14) Rough / finish excavation and grading of the Construction Support Building site.
15) Design Authority (DA) representation will also be provided on an as-needed basis to support USACE construction activities, including maintenance of Title III-related documents and the review and approval of contract submittals per NNSA approval.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI contractor direct staff and BOA subcontractors.	Ongoing	CD-4 approval from the DOE/NNSA Project Management Executive.

1	07	02	09	45	25	30	90		**SIS NNSA Direct ODC**

Description of Scope

This WBS element includes all scope directly executed by the NNSA. NNSA will procure specific site infrastructure and services activities through an Interagency Agreement with the U.S. Army Corps of Engineers (USACE).

1	07	02	09	45	25	30	90	10	SIS NNSA Direct USACE Civil Site Prep including CSB Excavation

Description of Scope

This USACE Task Order scope includes:

1) 9107 hillside excavation to grade after demolition of Building 9107 by the M&O/BNI contractor under WBS 1.07.02.09.45.25.30.05.10.
2) Demolition of portion of existing underground 24-inch and 16-inch potable water lines after new potable water lines are tied in as part of Site Readiness scope. This includes demo of approximately 600 LF of 16-inch waterline and 650 LF of 24-inch waterline.
3) Demolition of site structures, including fencing, concrete curbing, concrete walks, guardrail, and other site appurtenances.
4) Installation of new storm drain line C which includes 48-inch RCP, and JC-3 and JC-4.
5) Installation of new storm drain line which includes C-4, SB-3, 24-inch RCP, and 24-inch HDPE Piping.
6) Installation of B-13 and temporary 24-inch HDPE storm drain piping.
7) Installation of Sanitary Sewer line MHB-7 to MHB-4.
8) Installation of Storm Drain Line G, including SB-6.
9) Perform erosion and sediment control and water management for USACE scope of work.
10) Installation of Sediment Basin 4 and associated outlet control structure.
11) Demolition and removal (excluding asphalt removal) of unused stretch of Phase I BCR that extends west beyond the tie-in on the east of BCR relocated in Site Readiness.
12) Installation of new storm drain line K which includes 48-inch RCP, and JK-2, JK-3, and JK-4.
13) Maintenance of West Borrow area, Wet Spoils area, and Haul Road during use by USACE.
14) Rough / finish excavation and grading of the Construction Support Building site.

Method of Accomplishment	Status of Work Scope	Definition of Complete
USACE Task Order	Complete	Work scope not part of this annex.

1	07	02	09	45	25	30	90	20	SIS NNSA Direct USACE Supervision & Administration

Description of Scope

USACE Construction Management in the field for execution of Civil Site Work; includes engineering and design support, supervision and administration, mobilization, and preparatory work.

Method of Accomplishment	Status of Work Scope	Definition of Complete
USACE Task Order	Complete	Work scope not part of this annex.

1	07	02	09	45	25	30	90	30	SIS NNSA Direct Site Usage Fee

Description of Scope

This WBS element captures the cost included in the USACE Task Order for the Y-12 Site Usage Fee to cover fire protection, emergency services, security, etc. for USACE staff and subcontractors.

Method of Accomplishment	Status of Work Scope	Definition of Complete
USACE Task Order	Complete	Work scope not part of this annex.

1	07	02	09	45	25	50			**SIS CONCRETE BATCH PLANT**

Description of Scope

This Control Account is for the construction and commissioning of the As-Approved CD package On-Site Concrete Batch Plant (CBP) to provide concrete for UPF construction. This control account includes Subcontract to Furnish/Install/Commission the CBP, CNS/BNI labor and materials to supply utilities and services to/from the batch plant, and CNS/BNI Integrated Support for the Installation/Commissioning of the Batch Plant.

1	07	02	09	45	25	50	10		Batch Plant Furnish/Install

Description of Scope

Installation and commissioning of an on-site concrete batch plant to provide concrete for UPF construction. A furnish and install subcontract will be awarded to perform this scope.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Furnish/Install Subcontract	Ongoing (Phased work scope release by customer)	The UPF CBP is commissioned and ready to provide concrete for the UPF Construction scope.

1	07	02	09	45	25	50	30		Batch Plant Subcontract Support

Description of Scope

CNS/BNI support for the subcontractor Furnish, Installation, and Commissioning of the As-Approved CD package CBP including: field non-manual (construction management and oversight, STRs, field engineers, Quality, etc.), CNS RADCON services, and Title III Engineering. Subcontract costs to install temporary fencing are also included in this element.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff and subcontractors	Ongoing (Phased work scope release by customer)	The UPF CBP is commissioned and ready to provide concrete for the UPF Construction scope.

1	07	02	09	45	25	60	10		**SIS CNS/BNI CSB UTILITIES INSTALL AND NNSA /USACE SUPPORT**

Description of Scope

This Control Account is to provide Discrete CNS/BNI labor, subcontracts, and materials for the installation, testing, and tie-in of utilities (electrical, water, sewage, communications) to the 5' Limit of the Construction Support Building (CSB) and to provide LOE Project Integration support as authorized by NNSA during USACEs construction of the CSB.

1	07	02	09	45	25	60	10	10	SIS CNS/BNI Procure Matl for CSB Utilities

Description of Scope

This WP is for bulk material procurements based on MTOs needed to provide utilities (electric, water, sewer, communications) and tie-ins to the CSB. Distributable are also included in this element.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Local Suppliers - Material Receiving Reports	Work Not Authorized by NNSA	Material Receipt / Inspection Reports signed by authorized CNS Y-12 representatives.

1	07	02	09	45	25	60	10	20	SIS CNS/BNI CSB Utilities

Description of Scope

This Discrete WP is for CNS/BNI direct labor to install CSB utilities (electric, water, communications) and tie-ins to the CSB.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff	Work Not Authorized by NNSA	CSB utilities are installed, tested, tied-in, and accepted by CNS Y-12; as evidenced by authorized signatures on the acceptance / turnover documents.

1	07	02	09	45	25	60	10	30	SIS CNS/BNI Project Integration Support to USACE during CSB Design/Construction and Utility Installation

Description of Scope

Owner's Agent support as specified in COR-ESH-6.4.2015-628668 dated 8 Jun 2015, Contracting Officer's Clarification on Consolidated Nuclear Security, LLC Responsibilities for the UPF CSB, including:

1) Integrating the CSB schedule and risks into the overall UPF Site Infrastructure & Services (SIS) schedule and risk register.
2) Providing CNS/BNI Subject Matter Experts (SMEs) to participate in the USACE post award conference.
3) Reviewing and commenting on the USACE CSB Design submittals, with respect to compliance with the CNS performance specification. The current schedule shows:

- 30% Design Charrette meeting (13-19 Apr 2016)
- 60% Design Review (01-14 Jun)
- Onsite Meeting and Comment Resolution (15-16 Jun)
- 90% Design Review (29 Jul-11 Aug 2016)

- Onsite Meeting and Comment Resolution (12-15 Aug)
- Design Complete (26 Aug)

4) Posting the USACE Design and Submittals into the official UPF Project Record.
5) Interfacing with CNS Y-12 to provided site specific USACE support (badging, information technology, construction permits, lock out / tag outs, utility hookups and outages, waste disposition, RADCON services, HAZMAT monitoring services during the CSB Ground Source Heat Pump construction, security services, etc.).
6) Participating in weekly SIS IPT meetings, and preparing SIS progress reports / briefings.
7) Participating in walkdowns and inspections of USACE work, as SME advisors to UPO (plan for 8 hrs per week).
8) All support specified in Appendix B to PL-PM-801768-A030, UPF Site Infrastructure and Services Subproject Execution Plan.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI contractor direct staff and BOA subcontractors.	Work Not Authorized by NNSA.	CNS assumes responsibility and ownership for the CSB in the DOE FIMS database and on other required Real Property records. CD-4 approval from the DOE/NNSA Project Management Executive.

1	07	02	09	45	25	60	10	40	Northwind Subcontract for Instalation of 48” storm line.

Description of Scope

- Removal of existing pipe plug
- Excavation, hauling, and placement of material for approximately 80’ of 48” diameter RCP storm sewer piping, including junction box JC-3
- Installation of approximately 80’ of RCP storm sewer pipe including setting of junction box JC-3
- Providing new gasket materials if required
- Placement and compaction of pipe/structure bedding, initial and final backfill
- Inspection and testing
- As-built survey
- Submittal and acceptance of any replacement materials, if needed (new gaskets)
- Documentation as required per Inspection and Test Plan for storm sewer pipe and backfill installation
- Submittal of final as-built surveys and final geotechnical testing

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI subcontractor.	Ongoing	CNS to provide evidence of the acceptance of the subcontractors completion of this activity. Furnishing of approval of subcontractors invoice or equivalent for this work activity is sufficient.

1	07	02	09	45	26				**SIS Other Project Costs**

Description of Scope

This Control Account is for Other Project Costs (OPC) related to CD-4 and closeout activities for the Site Demolition & Security Upgrades scope, Concrete Batch Plant, and Construction Support Building (CSB). Includes all closeout reports, inspection and acceptance testing, and security testing of Portal 19 and VAS Gate 5.

1	07	02	09	45	26	30			SIS CNS/BNI Site Demolition & Security Upgrades Closeout (OPC)

Description of Scope

Site Demolition & Security Upgrades OPC scope includes CD-4 and Project Closeout activities. As a basis for CD-4 approval, a report will be prepared that documents inspection and acceptance of completed scope and a plan for transition of appropriate scope to the Y-12 site; i.e., Portal 19 and VAS gate. Project Closeout will be documented in a Final Project Closeout Report. The request for CD-4 and Project Closeout activities for this scope will be based on verifying that Key Performance Parameters (KPPs) have been achieved. Includes Security Testing of Portal 19/VAS Gate and checkout.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff and subcontractors		CD-4 approval from the DOE/NNSA Project Management Executive

1	07	02	09	45	26	50			SIS CNS/BNI Concrete Batch Plant Closeout (OPC)

Description of Scope

Concrete Batch Plant OPC scope includes CD-4 and Project Closeout activities. As a basis for CD-4 approval, a report will be prepared that documents inspection and acceptance of completed scope. Project Closeout will be documented in a Final Project Closeout Report. The request for CD-4 and Project Closeout activities for concrete batch plant scope will be based on verifying that Key Performance Parameters (KPPs) have been achieved.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff and subcontractors		CD-4 approval from the DOE/NNSA Project Management Executive

1	07	02	09	45	26	60			SIS Construction Support Building Closeout (OPC)

Description of Scope

Construction Support Building OPC scope includes CD-4 and Project Closeout activities. As a basis for CD-4 approval, a report will be prepared that documents inspection and acceptance of completed scope and a plan for transition of appropriate scope to UPO to be provided to the UPF Project as a government-furnished building. Project Closeout will be documented in a Final Project Closeout Report. The request for CD-4 and Project Closeout activities for SIS CSB scope will be based on verifying that Key Performance Parameters (KPPs) have been achieved.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS/BNI direct staff and subcontractors		CD-4 approval from the DOE/NNSA Project Management Executive

Reporting Requirements	
The Federal Project Director and Contracting Officer, with inputs from other Government personnel, will verify the on time submission of project reports that meet DOE/NNSA requirements contained in the Data Item Descriptions (DIDs). The Government will perform this verification by comparing the DOE/NNSA requirements contained in the following DIDs to the deliverables provided by the Contractor:	
Data Item Description	Title
DID-PM-0026/T	Monthly Project Report
DID-PRG-0022/T	Integrated Program Management Report (IPMR)
DID-PRG-0021	Monthly Status PARS II Report
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0004/T	Project Completion Verification
DID-PM-0027/T	Resource Loaded Schedule
DID-PM-0029/T	Total Project Cost
DID-PM-0036/T	Federal Project Director Monthly Project Review
DID-PM-0041/T	Project Closeout Report
	Monthly Project Briefing Package to NA-APM
	Monthly Labor Charges Report
	Monthly Expenditure Report for USACE Support
	Weekly Status Report

APPENDIX B

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

SIS Incentive Fee - Terms

The Government will use the following CPIF Model terms for SIS fee calculation.

P_T = Target Price // Estimated Target Price ($) if all available fee earned.

F_A = Available Fee // Combined unrealized Target Fee and Schedule Fee ($).

C_T = Target Cost // Negotiated Target Cost ($).

F_T = Target Fee // Negotiated Target Fee ($).

F_S = Schedule Fee // Negotiated Schedule Fee ($).

C_{UT} = Under Target Cost // Actual Costs ($) when Maximum Fee realized.

F_{MAX} = Maximum Fee // *Maximum Fee ($) realized for Under Target Cost.*

C_{OT} = Over Target Cost // Actual Costs ($) when Minimum Fee realized.

F_{MIN} = Minimum Fee // *Minimum Fee ($) realized for Over Target Cost.*

C_{TAC} = Total Allowable Cost // Actual Cost ($) the Contractor can claim.

F_{TA} = Target Fee Adjustment // Calculated Fee Adjustment ($) for Under/Over.

F_{ATF} = Adjusted Target Fee // Calculated Fee Adjustment ($) applied to Target Fee.

F_{AFF} = Adjusted Final Fee // Calculated Fee Adjustment ($) for Schedule.

P_C = Contract Price * // Calculated Contract Price ($) after Final Fee applied.

* Final fee determination will be made using Government CPIF Excel model formulas.

** Earned fee rules apply in determining final Contract Price.

Share Ratios: Government Under/Over Target Shares, expressed as the Government percentage share of cost risk over the Contractor percentage share of cost risk.

Under Target Share = S_{GU}/S_{CU} // Government Share (%)/Contractor Share (%).

Over Target Share = S_{GO}/S_{CO} // Government Share (%)/Contractor Share (%).

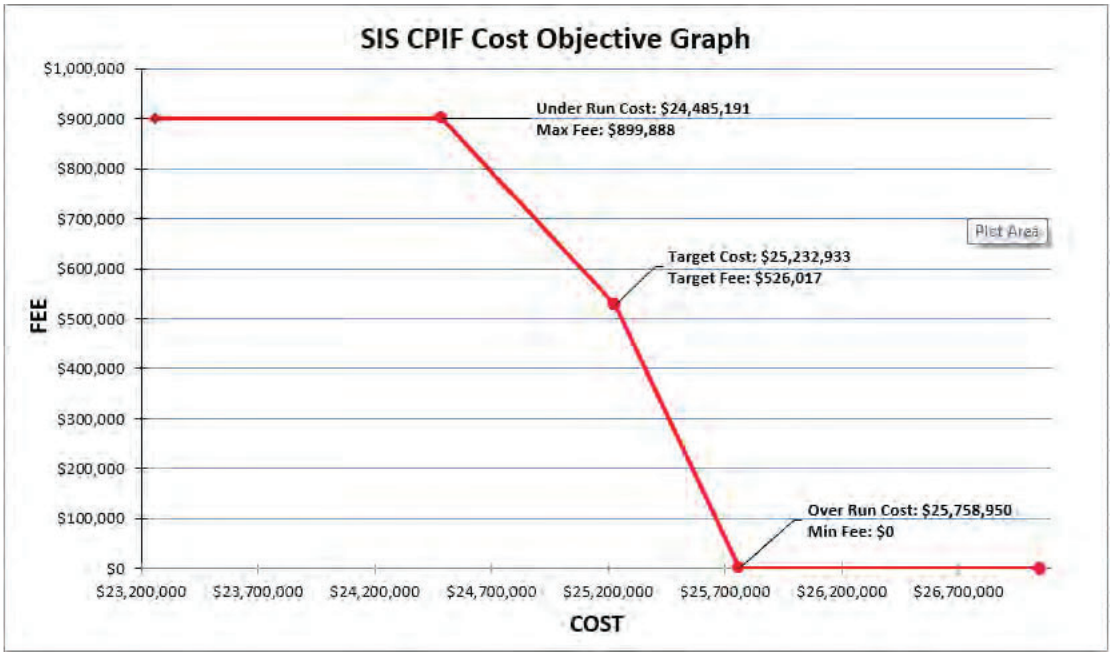


Figure 1: SIS CPIF Cost Objective Graph

APPENDIX C
GOVERNMENT OVERSIGHT MODEL

Cost Objective: The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but not limited to:

- Complete authorized scope in accordance with the approved Performance Measurement Baseline; provide timely project reporting.
- Manage a deliverable-based Work Breakdown Structure (WBS); cost control accounts, work packages and planning packages consistent with WBS/scope.
- Use established DOE earned value methods, measure work accomplishment, and assess project performance; perform variance analysis to identify, correct, and report problems; and regularly evaluate Estimates at Completion (EAC).
- Expend funds and resources that optimally provide the maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant to the GAO Best Practices for Developing and Managing Capital Costs Guide and DOE G 413.3-21, Cost Estimating Guide; consider life cycle cost when evaluating proposed project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, e.g., designs, specifications, plans, procurement, construction, testing, and commissioning; demonstration of implementation of an approved DOE O 414.1D Quality Program.
- Identify, quantify and mitigate technical, programmatic, schedule, and cost risks.

APPENDIX C - Continued

Schedule Objective: The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix, Appendix N, DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but not limited to:

- Execute scope in accordance with NNSA approved Execution Plans.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify Work Breakdown Structure (WBS) elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, and technology, procurement, construction, testing, and commissioning); incorporate labor, material and equipment resources and ensure reasonable/available.
- Manage a credible critical path as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is reasonable. Incorporate subcontracted activity into schedule/critical path to ensure visibility to the Government.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a Federal, State, or local regulatory agency; excellent safety DART/TRC rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to CO/FPD.
- Support USACE construction in accordance with NNSA approved Execution Plans and Procedure UPO-95-A026, Interfaces Between UPO, M&O and USACE for UPF Construction.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication and construction expeditiously without major problems or delays (Title II).
- Provide Resident Engineering representation as directed to support Construction

and oversee the design's intent and requirements; exceptions are rare to non-existent without problems or delays (Title III).

- Perform pre-award/award/post-award, surveillance/oversight functions to support and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.
- Identify, quantify and mitigate project schedule risks; perform schedule risk assessments to predict the probability of completing on time.

Uranium Processing Facility (UPF)

Site Preparation and Long Lead Procurement
CD-3A (SP/LL)
Fee Structure

Annex 4 (REV 3)

National Nuclear Security Administration

[redacted]
Date

John P. Howanitz
UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]
Date

Dale E. Christenson
Federal Project Director
NNSA, UPF Project Office

[redacted]
Date

Scott S. Crawford
UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]
Date

Philip M. Kirby
Contracting Officer
NNSA, UPF Project Office

Revision Log

Revision	Date	Description	Total Pages	Affected Pages
0	June 28, 2016	Initial issue.	Front matter, i–ii Body, 1–2; Appendix A, B, and C.	All
1	June 21, 2017	Change to target cost/target fee related to draw from contingency for excavation beyond design volumes. Added 22 days to impacted fee milestones and $4.19M to target price.	Front matter, i–ii Body, 1–2; Appendix A, 1-32; Appendix B, 1-2; and Appendix C, 1-3.	A-1 - A-2; A-5 - A-10; B-2
2	March 8, 2018	Change to target cost/target fee related to moving new scope – RS 10” Fire Water Line from MPB scope to mitigate need to excavate same area.	Front matter, i–ii Body, 1–2; Appendix A, 1-33; Appendix B, 1-2; and Appendix C, 1-3.	A-1, A-2, A-8, A-10; B-2
3	June 4, 2018	Change to target cost/target fee related to Procurement Pool removal.	Front matter, i–ii Body, 1–2; Appendix A, 1-33; Appendix B, 1-2; and Appendix C, 1-3.	A-1, A-2, A-8, A-10; B-2

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3. Approach 1
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5. Annex Oversight 2
6. Change Procedures 2

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SITE PREPARATION AND LONG LEAD CD-3A PERFORMANCE OBJECTIVES

APPENDIX B B-1

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

APPENDIX C C-1

GOVERNMENT OVERSIGHT MODEL

1. Introduction

The Uranium Processing Facility (UPF) Site Preparation and Long Lead Procurement CD-3A (SP/LL CD-3A) scope, herein referenced as "SP/LL CD-3A," was authorized by the National Nuclear Security Administration (NNSA) to advance the scope of the Mechanical Electrical Building (MEB), Salvage Accountability Building (SAB), and Main Processing Building (MPB) future subprojects. The SP/LL CD-3A scope is being performed by Consolidated Nuclear Security, LLC (CNS), herein referenced as "Contractor," as defined in the UPF Project Execution Plan, PL-PJ-801768-A006, which establishes the formal plan for executing the CD-3A scope.

The SP/LL CD-3A scope supports the UPF Project by completing key critical-path site preparation construction work so that the Project site will be ready for subsequent nuclear facility construction. The SP/LL CD-3A scope is best characterized as standard commercial with risk significant (RS) attributes to be verified by the Contractor, and does not implement new technologies. The SP/LL CD-3A scope shall be managed through the use of the Project's construction management baseline in order to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base (CBB), Statement of Work, and Level II/III Milestones that must be achieved to not impact the nuclear construction forecast schedule UPF CD-4 date (4th QTR FY 2025).

The SP/LL CD-3A scope shall support the Enriched Uranium Mission (EUM), with timely, cost effective, high quality deliverables.

2. Purpose

The SP/LL CD-3A Fee Structure, herein referenced as "SP/LL CD-3A Annex" (Annex 4), is a subset of the overarching Contract, Section J, Appendix B-2, "UPF Fee Plan," that documents the Performance Objectives and Cost Plus Incentive Fee (CPIF) arrangement, in which SP/LL CD-3A performance will be evaluated. The purpose of the SP/LL CD-3A Annex is to document the target cost and incentive fee structure, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a "contract price" for the SP/LL CD-3A scope.

3. Approach

The desired performance of the Contractor is to deliver high quality SP/LL CD-3A deliverables (technical requirements) and/or integration support, which will ultimately deliver a UPF fully capable of meeting all DOE/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements. The desired goal is to properly incentivize the Contractor to deliver SP/LL CD-3A scope on/or under budget and on/or ahead of schedule, by establishing a reasonable Target Price, including Cost and Schedule Performance Objectives for meeting the SP/LL CD-3A scope.

4. Establishing Annex

The SP/LL CD-3A Annex shall be approved and incorporated into the Contract by modification at Section J, Appendix B-2, UPF Fee Plan by the Contracting Officer (CO).

The Government will primarily incentivize the Contractor using the following critical performance objectives, unless otherwise documented in the Annex:

- Cost
- Schedule

By employing these incentives, the Government expects to motivate the Contractor to aggressively manage resources as required in order to provide high-quality and timely completion of authorized scope and/or integration/support of all SP/LL CD-3A deliverables. Eligibility and the amount of the incentive fee earned shall be dependent on the Contractor meeting or exceeding the established performance objectives. Failure to meet any of the established SP/LL CD-3A Performance Objectives, Appendix A, may result in the Contractor's forfeiture of incentive fee for that assigned objective or element.

5. Annex Oversight

The Government Oversight Model, Appendix C, describes the approach NNSA will use for conducting surveillance and oversight of SP/LL CD-3A Performance Objectives and Contract deliverables, in order to ensure the Contractor delivers high quality products and services that meet the UPF Project requirements. The CO and Contracting Officer's Representatives (CORs), with input from functional area managers, will measure how the key performance objectives of the Contract are met. The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives, i.e., final outcomes, are achieved. The CO/COR may notify the Contractor anytime during performance of the Contract to address cost, schedule, and/or performance concerns needing attention.

6. Change Procedures

The SP/LL CD-3A Annex may be updated as necessary during Contract performance. These updates may include, but are not limited to, required changes caused by new authorized scope, project phasing, approved change control, and/or establishing/adjusting fee incentives and performance objectives. Any changes shall be codified by a Contract modification within Section J, Appendix B-2, UPF Fee Plan.

All changes, including SP/LL CD-3A Baseline Changes, are subject to the thresholds outlined in the UPF Project Execution Plan, PL-PJ-801768-A006, Appendix C.

Appendix A

SP/LL CD-3A PERFORMANCE OBJECTIVES

Fee – Summary for SP/LL CD-3A	
Target Price (P_T), includes available fee	$114,946,035.00
Available Fee (F_A), only includes unrealized cost and schedule fee	$5,473,620.00
Note: NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report. For the purposes of this negotiated annex, all fee related to the cost objective is provisional to the end of the project (UPF CD-4) or contract, subject to the final fee determination and Contract modification.	
Cost Objective Elements – 50%	
Target Cost (C_T)	$109,472,415.00
Target Fee (F_T)	$2,736,810.00
Level 1 Under Target Cost (C_{UT1})	$106,429,193.00
Level 1 Under Target Share Ratio (S_{GU1}/S_{CU1})	90/10
Level 2 Under Target Cost (C_{UT2})	$101,210,424.00
Level 2 Under Target Share Ratio (S_{GU2}/S_{CU2})	70/30
Maximum Fee (F_{MAX})	$4,606,763.00
Level 1 Over Target Cost (C_{OT1})	$112,515,637.00
Level 1 Over Target Share Ratio (S_{GO1}/S_{CO1})	90/10
Level 2 Over Target Cost (C_{OT2})	$114,948,125.00
Level 2 Over Target Share Ratio (S_{GO2}/S_{CO2})	0/100
Minimum Fee (F_{MIN})	$0

Schedule Objective Elements - 50%	
Schedule Fee (F_{SM}) Milestones	$2,736,810.00

Target Price - Change Log			
Modification	**Target Cost**	**Avalable Fee**	**Target Price**
Rev 0	$106,956,778.00	$5,347,838.00	$112,304,616.00
Rev 1	$3,997,232.00	$199,862.00	$4,197,094.00
Rev 2	$200,964.00	$10,048.00	$211,012.00
Rev 3	($1,682,559.00)	($84,128.00)	($1,766,687.00)
	$109,472,415.00	$5,473,620.00	$114,946,035.00

Scope – Summary
The major SP/LL CD-3A scope tasks and responsibility for performing each task are defined in *UPF Project Scope for CD-3A Long-Lead/Bulk Procurements and Site Preparation* (PL-PM-801768-A011), and Letter of Direction, COL-NNSA-UPO-PM-801768-A068 (COR-PS-8.19.2015-639130) *Contracting Officer Direction for the Site Preparation Critical Decision Package.* **NOTE:** Major scope elements are defined in the Work Breakdown Structure (WBS) section and schedule milestone – deliverable summary, as extracted and further defined from PL-PM-801768-A011.

Critical Decision (CD) - Summary	
UPF CD-4 Forecasted Approval	4th QTR FY 2025

Schedule Milestones – Deliverable Summary [1]

Deliverable			Completion Date [3]	Impact Date
Start Excavation WBS: 1.07.02.09.45.60.80.10.10			September 8, 2016	N/A
Provisional Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$194,109.00	$0	N/A		
Definition of Complete: All mobilization and excavation pre-construction submittals for mass excavation have been accepted by CNS. The excavation subcontractor is mobilized to start excavation scope. The subcontractor has achieved removal (Load/Haul/Dump) of 75 loads. Objective evidence that verifies completeness (e.g. Contractor Weekly Reports) is provided.				

Deliverable			Completion Date [3]	Impact Date
Retaining Wall Complete WBS: 1.07.02.09.45.60.80.10.50			August 4, 2017	February 20, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$129,406.00/$105,165.00	$0	N/A		
Definition of Complete: Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Installation of retaining wall including formwork, rebar, embeds, and placement per design and specification is complete. Standard closure evidence provided. The fee associated with this Earned Value at Milestone is only available until February 19, 2018.				

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Completion Date [3]	Impact Date
West End Feeder Upgrade Complete WBS: 1.07.02.09.45.60.80.40.82			November 14, 2016	N/A
Provisional Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$230,343.00	$0	N/A		
Definition of Complete: Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Standard closure evidence provided.				

Deliverable			Completion Date [3]	Impact Date
Initiate Mud Mat Placement WBS: 1.07.02.09.45.60.80.20.10			April 10, 2017	N/A
Provisional Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$304,104.00	$0	N/A		
Definition of Complete: Subgrade is approved by the geotechnical engineer for placement of the initial mud mat. CNS has verified that subgrade for the initial placement meets Risk Significant attributes. The first Mud Mat placement has been completed in accordance with design. Verification that the first mud mat has been placed in accordance with specifications and RS requirements.				

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable	Completion Date [3]	Impact Date
Excavation Complete WBS: 1.07.02.09.45.60.80.10.10	October 30, 2017	N/A

Provisional Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal
$427,371.00	$0	N/A

Definition of Complete: CNS has verified that excavation is completed per engineering design boundaries. Competent shale/bedrock is confirmed. All removed material is hauled to and placed at the appropriate location. Sediment Basin 5 is closed. Brush/tree removal is complete. Rip rap installation is complete. 18-in sump drain, select storm drains, parking lots are demolished/removed. Redlines and the corresponding survey data is complete and accepted by the UPF Project. Standard closure evidence provided.

Deliverable	Completion Date [3]	Impact Date
MEB Slab Rebar on Site and Staged in Laydown Area or in Rubb-Tents WBS: 1.07.02.09.45.60.80.30.50	January 30, 2018	July 18, 2018

Provisional/Earned Value at Milestone	Earned Value at Impact [2]	Earned Value at Max Stretch Goal
$12,941.00/$10,517.00	$0	N/A

Definition of Complete: Acceptance of rebar by procurement per Y17-95-64-804 and Y17-95-64-846. CNS verification of certificates of conformance, receipt inspections, and rebar acceptance. Objective evidence that the rebar is received, stored, and maintained per specification (Contractor Weekly Reports from the CNS PM). The fee associated with this Earned Value at Milestone is only available until July 17, 2018.

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Completion Date [3]	Impact Date
Tower Cranes Pass Factory Acceptance Test WBS: 1.07.02.09.45.60.80.40.70			March 23, 2018	N/A
Provisional Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$64,703.00	$0	N/A		
Definition of Complete: CNS Verification that both Tower Cranes have passed the Factory Acceptance Test. Documentation and verification of FAT acceptability is provided.				

Deliverable			Completion Date [3]	Impact Date
Lift 6 Concrete Placement Complete WBS: 1.07.02.09.45.60.80.20.20			November 21, 2017	August 15, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$472,800.00/$97,253.00	$0	N/A		
Definition of Complete: Lift 6 is complete in accordance with design. Objective evidence that competent material determination/verification by a geotechnical engineer and CNS certificates that the mud mat was placed in accordance with plans as specifications. Standard closure evidence provided. The fee associated with this Earned Value at Milestone is only available until August 14, 2018.				

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Completion Date [3]	Impact Date
Lift 9 Concrete Placement Complete WBS: 1.07.02.09.45.60.80.20.20			May 4, 2018	August 17, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$472,800.00/$97,253.00	$0	N/A		
Definition of Complete: Lift 9 is complete in accordance with design. Standard closure evidence provided. The fee associated with this Earned Value at Milestone is only available until August 16, 2018.				

Deliverable			Completion Date [3]	Impact Date
All Concrete Select Fill Lifts and Aggregate Backfill Placed Complete WBS: 1.07.02.09.45.60.80.20.20			May 17, 2018	August 17, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$273,690.00/$232,556.00	$0	N/A		
Definition of Complete: Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Select Fill and Mud Mat: Objective evidence that competent material determination/verification by a geotechnical engineer and CNS certificates that the mud mat was placed in accordance with plans as specifications. Mineral Aggregate Backfill: QC documentation verifying the aggregate backfill was installed per design (RS attribute) is complete. Schedule incentive "All Concrete Select Fill Lifts and Aggregate Backfill Placed" is defined as: All lifts are complete and all mineral aggregate base backfill is placed and "A" punch list items are complete. The fee associated with this Earned Value at Milestone is only available until August 16, 2018.				

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Completion Date [3]	Impact Date
All Tower Cranes Operational WBS: 1.07.02.09.45.60.80.40.70			August 27, 2018	November 24, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$191,583.00/$152,981.00	$0	N/A		
Definition of Complete: Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Tower cranes are erected and pass all certifications for use. The fee associated with this Earned Value at Milestone is only available until November 23, 2018.				

Schedule Milestones – Deliverable Summary [1] (continued)

Deliverable			Completion Date [3]	Impact Date
RS Firewater Supply Line Installation WBS: 1.07.02.09.45.60.80.40.97			August 1, 2018	November 24, 2018
Provisional/Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**		
$0/$5,024.00	$0	N/A		
Definition of Complete: Installation, completion, inspection, acceptance and turnover of work scope per the design. CNS certificates that the line is placed in accordance with plans provided. The fee associated with this Earned Value at milestone is only available until November 23, 2018.				

Deliverable			Completion Date [3]	Impact Date
All CD-3A Scope Completed/Accepted WBS: 1.07.02.09.45.60.80			November 11, 2018	December 12, 2018
Earned Value at Milestone	**Earned Value at Impact [2]**	**Earned Value at Max Stretch Goal**	**Completion Delay Reductions (Calendar Days)**	
$2,078,125.00	$0	N/A	$66,667.00/day; $2,000,000.00 max	
Definition of Complete: Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Inspections shall be performed and documented in accordance with Y15-95-912, *UPF Completion and Turnover* per procedure. Turnover shall be to the UPF Project and will include all relevant supporting documentation (e.g. material certificates of conformance, receipt inspection, test reports, as built drawings, and engineering determinations/verifications). All project documentation shall be captured in the UPF Document Management Center and maintained as a project record. The fee associated with this Earned Value at Milestone is only available until December 11, 2018.				

NOTES:

1 – Schedule Milestones are tied to definitions of complete, including any logical ties to WBS structure and standard closure evidence.

2 – Earned Value at Impact ($0) is achieved on the Impact Date for each milestone for circumstances related and attributable to CNS performance.

3 – All completion criteria are pursuant to DOE O 413.3B and assume high quality deliverables, with no deficiencies (major findings or findings: attributable to significant scope, cost, schedule or safety impacts) that would prevent the project team from executing baseline.

Schedule of Values – Fee Liquidation Schedule [1]

When Paid	Scope	Cost Objective			Schedule Objective	
		Provisional	Earned	Unliquidated	Provisional	Earned
On Completion	Start Excavation WBS: 1.07.02.09.45.60.80.10.10	$129,406.00	-	$55,460.00	$194,109.00	-
On Completion	Retaining Wall Complete WBS: 1.07.02.09.45.60.80.10.50	$86,271.00	-	$36,973.00	$129,406.00	$105,165.00
On Completion	West End Feeder Upgrade Complete WBS: 1.07.02.09.45.60.80.40.82	$77,644.00	-	$33,276.00	$230,343.00	-
On Completion	Initial Mud Mat Placement WBS: 1.07.02.09.45.60.80.20.10	$155,287.00	-	$66,552.00	$304,104.00	-
On Completion	Excavation Complete WBS: 1.07.02.09.45.60.80.10.10	$263,071.00	-	$112,745.00	$427,371.00	-
On Completion	MEB Slab Rebar on Site and Staged in Laydown Area or in Rubb-Tents WBS: 1.07.02.09.45.60.80.30.50	$4,314.00	-	$1,849.00	$12,941.00	$10,517.00
On Completion	Tower Cranes Pass Factory Acceptance Test WBS: 1.07.02.09.45.60.80.40.70	$155,287.00	-	$66,552.00	$64,703.00	-
On Completion	Lift 6 Concrete Placement Complete WBS: 1.07.02.09.45.60.80.20.20	$273,140.00	-	$117,060.00	$472,800.00	$97,253.00
On Completion	Lift 9 Concrete Placement Complete WBS: 1.07.02.09.45.60.80.20.20	$273,140.00	-	$117,060.00	$472,800.00	$97,253.00
On Completion	All Concrete Select Fill Lifts and Aggregate Backfill Placed Complete WBS: 1.07.02.09.45.60.80.20.20	$326,563.00	-	$139,956.00	$273,690.00	$232,556.00
On Completion	All Tower Cranes Operational WBS: 1.07.02.09.45.60.80.40.70	$152,048.00	-	$65,163.00	$191,583.00	$152,981.00

Schedule of Values – Fee Liquidation Schedule [1] (continued)

When Paid	Scope	Cost Objective			Schedule Objective	
		Provisional	Earned	Unliquidated	Provisional	Earned
On Completion	RS Firewater Supply Line Installation Complete	$3,517.00	-	$1,507.00	-	$5,024.00
On Completion	All CD-3A Scope Completed/Accepted [3,4] WBS: 1.07.02.09.45.60.80.60.80	$45,524.00	-	$19,509.00	-	$2,078,125.00
Journal Correction	Procurement Pool Removal	-	-	($42,064.00)	($37,040.00)	($42,064.00)
TBD	Final Fee Determination [5]	$1,945,212.00	UPF CD-4	$791,598.00	$2,736,810.00	$2,736,810.00

NOTES:

1 – Schedule Milestones are tied to definitions of complete, including any logical ties to WBS structure and standard closure evidence.

2 – All completion criteria are pursuant to DOE O 413.3B and assume high quality deliverables, with no deficiencies (major findings or findings: attributable to significant scope, cost, schedule or safety impacts) that would prevent the project team from executing baseline.

3 – NNSA will make an interim Fee Determination for unliquidating the remaining cost objective fee when all CD-3A scope is completed and accepted.

4 – The target cost contains an allowance event trigger for additional fixed unit rate quantities associated with excavation and backfill beyond the design volumes. As a result, the final contract price for this Annex, inclusive of fee, will be validated and adjusted by NNSA to reflect any additional required volumes and/or impacts prior to the final fee determination. However, CNS shall have the burden of proof for demonstrating and providing the basis for any adjustments. See the Allowances section for the process for triggering fixed unit rate adjustments.

5 – NNSA will make a Final Fee Determination for cost objectives after NNSA approval of UPF CD-4 and acceptance of UPF closeout report.

Allowances – Fixed Unit Rate Adjustments [1]

ID	Description/Validation	Unit	Rate
1	**Mass Excavation** Soils removed down to the 50 Blow Count Material as defined in C2E801768A514, *Building Excavation Plan* and C2E801768A290, *Building Connector Excavation Plan. Inclusive of additional excavation for layback.* Verified via survey data and as-builts.	yd^3	$13.69
2	**Placement of Mud Mat, includes Mud Mat Concrete Material** Placement of Mud Mat Material defined by CS-ES-801768-033012-A002, *Engineering Specification for Mass Fill and Mud Mat Concrete Work* and meeting requirements of ACI 318. Verified via survey data and as-built drawings.	yd^3	$361.62
3	**Furnish and Placement of Engineered Fill** Furnish and placement of backfill material defined by CS-EC-801768-312000-A010, *Engineering Specification for Earthwork* and meeting requirements of ASTM D1557 and ASTM D6938. Verified via survey data and as-built drawings.	yd^3	$71.40
4	**Placement of Mass Fill, includes Mass Fill Concrete Material** Placement of Mass Fill Defined by CS-ES-801768-033012-A002, *Engineering Specification for Mass Fill and Mud Mat Concrete Work*, and meeting requirements of ACI 318 and ACI 207.1R. Verified via survey data and as-built drawings.	yd^3	$244.29
5	**50 Blow Count Testing** Verified from Standard Penetration Test reports performed in accordance with CS-EC-801768-312000-A010, *Engineering Specification for Earthwork* and ASTM D1586.	each	$1,647.58
6	**CNS Oversight [2]** Weekly Status Reports and Labor Reports. Includes regular and overtime hours.	day	$62,264.41

NOTES:

1 – The fixed unit rate allowance will be used by NNSA for validating and calculating any potential adjustment to the target cost and target fee in the event that any additional allowance quantities are required. The intent of the allowance is to reasonably compensate CNS for any required excavation and backfill efforts beyond the design volumes.

2 – The daily unit rate for CNS Oversight "Hotel Load" will be used by NNSA for validating and calculating any potential adjustment to the target cost and target fee in the event that any additional oversight allowance is required. The intent of the daily unit rate allowance is to reasonably compensate CNS for any realized oversight impacts, as a result of additional/required excavation and backfill oversight efforts beyond the design volumes. It is not the intent of the daily unit allowance to be applied for the entire duration or offset other performance issues.

Allowance Requirements – Fixed Unit Rate Adjustments

In the event the Project realizes a point in which the data from the subcontractor(s) identifies that excavation beyond the design volumes will be required, i.e., the event trigger, CNS shall immediately notify the Contracting Officer (CO) via formal written notice.

Initial Event Trigger: If the initial event trigger is realized, CNS shall process a level 2 Baseline Change Proposal (BCP) for $3M (approximately 50% of the budget retained in contingency for the potential growth in excavation, mudmat, select fill, and backfill quantities) within 5 working days of realizing the event trigger in order to not impact the ongoing SP/LL CD-3A scope. The initial BCP will not be based on as-built drawings, final survey data, or change requests from subcontractors. NNSA will disposition the BCP within 5 working days of receipt. Approval of this BCP does not constitute a change in target cost or target fee.

In the event the Project realizes a second point in which the data from the subcontractor(s) identifies that excavation beyond the initial $3M allowance will be required, CNS shall immediately notify the CO via formal written notice.

Second Event Trigger: If the second event trigger is realized, CNS shall process a level 2 Baseline Change Proposal (BCP) for $3M (approximately 100% of the remaining budget retained in contingency for the potential growth in excavation, mudmat, select fill, and backfill quantities) within 5 working days of realizing the event trigger in order to not impact the ongoing SP/LL CD-3A scope. The second BCP will not be based on as-built drawings, final survey data, or change requests from subcontractors. NNSA will disposition the BCP within 5 working days of receipt. Approval of this BCP does not constitute a change in target cost or target fee.

Completion Requirements:

Within the original baseline schedule: Upon completion of all Site Preparation Work as defined Work Breakdown Structure (WBS) section, CNS shall submitt standard cloure evidence the Federal Project Director (FPD) and CO to determine the final quantity adjustments for the excavation, mudmat, select fill and backfill scopes of work. The FPD will validate the information submitted within 30 calendar days of receipt. Pursuant to the annex change procedures, the CO will apply the verified values against the established fixed unit rates under this allowance in order to adjust the target cost and target fee.

Outside the original baseline schedule: Upon completion of all Site Preparation Work as defined in the WBS section, CNS shall submit a documented basis and analysis of the total schedule impact associated with the allowance quantities that that exceeded the design volumes within 30 calendar days to the FPD and CO. The FPD will evaluate the information submitted and make a recommendation to the CO within 30 calendar days of receipt. Pursuant to the annex change procedures, the CO will make a final determiniation regarding any additional overhead support required using the established fixed unit rates under this allowance in order to adjust the target cost and target fee.

CNS has the burden of proof in demonstrating final quantities and schedule impacts. Thus, CNS shall provide any change order requests received from the excavation and mudmat/select fill/backfill subcontractors in support of the requested volumes and overhead support changes to target cost and target fee.

CNS shall true up the Contract Budget Base (Performance Measurement Baseline and Management Reserve) to reflect the final adjustments, and return any unused budget allowance to Federal Project Director contingency.

Work Break Down Structure (WBS)

WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	60	80			**Site Preparation & Long Lead Procurement**

Description of Scope

This includes the excavation and select fill and retaining wall required to start nuclear construction. This scope also includes the procurement of long lead items such as the two tower cranes and rebar for the MEB slab foundation, which will allow UPF to meet its obligation to meet the CD-4 project date of September 2025. This WBS Level is further defined in the levels below.

Standard Closure Evidence Statement

The following statement applies to all lower level WBS elements:

Installation, completion, inspection, acceptance, and turnover of work scope per the design and subproject terms/conditions. Inspections shall be performed and documented in accordance with Y15-95-912, *UPF Completion and Turnover* per procedure. Turnover shall be to the UPF Project and will include all relevant supporting documentation (e.g. material certificates of conformance, receipt inspection, test reports, as built drawings, and engineering determinations/verifications). All project documentation shall be captured in the UPF Document Management Center and maintained as a project record.

1	07	02	09	45	60	80	10		**Site Prep Excavation**

Description of Scope

This Control Account is for CNS scope per the As-Approved CD package for the **Site Preparation & Long Lead Procurement** CD-3A including excavation for the mud mat and select fill placement, installation of storm drains and sewer line, constructing laydown area, mobilization of contractors and supporting distributables, construction of a retaining wall adjacent to PIDAS, jack and bore, maintenance of west borrow and wet spoil areas, and final as-builts required to close out construction scope in this control account (This WBS Level is further defined in the levels below.)

1	07	02	09	45	60	80	10	10	Excavation for mud mat and select fill placement

Description of Scope

• Mass Excavation of Building Foundation per engineered boundaries. Confirm presence of competent shale/bedrock. Continue excavation of UPF building foundation from elevation ~ 2 ft. above to the competent material. Fixed unit rate pricing will be used if additional excavation is

required. Coordination with Select Fill Subcontractor for placement of mud mat.

- Hauling of excavated material to West Borrow and Wet Spoil areas.
- Erosion and sediment control and water management.
- Closure of Sediment Basin 5.
- De-watering of excavated area.
- Brush and tree removal as required to facilitate rough grading activities. Interim grading of the construction site, including over excavation of unsuitable material, as required. Installation of rip rap.
- Haul Road maintenance during period of performance.
- Demolition of abandoned 18-in raw water line on the east side of the UPF building site, including associated valve pits, select storm drains in former Bear Creek Road (BCR), and adjacent parking lots.
- Demolition of civil features, underground utilities and structures.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	20	Site Prep Storm Drains and Sewer Install

Description of Scope

Installation of new storm water and site sanitary sewer systems as required for site preparation. Scope includes storm drain piping, catch basins and junction boxes, security barriers, casing pipe, precast headwalls/end walls, outlet protection, sanitary sewer line, backfill and compaction, etc.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	30	Site Prep Lay Down Area

Description of Scope

Placing fill and grading for one laydown area (~8 acres), and correcting drainage issues. Installation of laydown area infrastructure items

including site clearing, culverts, mowing, straw wattles, geotextile fabric, and stone and mineral aggregate base material.		
Method of Accomplishment	**Status of Work Scope**	**Definition of Complete**
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Objective evidence shall also be provided that lay down areas were installed consistent with the MOU/MOA between 1) CNS and UCOR and 2) UPO/NPO/OREM.

1	07	02	09	45	60	80	10	40	Site Prep Excavation Mobilization, Demobilization, and Trailers
Description of Scope									
• Mobilization of Subcontractor including delivery of construction equipment and materials to jobsite, completion of required training, and pre-mobilization documentation. • Installation and maintenance of temporary Subcontractor trailers. • Demobilization of Subcontractor including site remediation, removal and cleanup of equipment and temp facilities, removal of silt fence and erosion controls, completion of all subcontractor's punch list items.									
Method of Accomplishment			**Status of Work Scope**						**Definition of Complete**
Fixed Priced Subcontract			Work Planned						Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	50	Site Prep Retaining Wall
Description of Scope									
Installation of retaining wall including formwork, rebar, embeds, and placement per design and specification.									
Method of Accomplishment			**Status of Work Scope**						**Definition of Complete**
Fixed Priced Subcontract			Work Planned						Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	60	Site Prep Jack and Bore

Description of Scope

• Jack-and-bore installation of utility casing north-south for later utility installation to UPF
• Scope includes shoring (if required), level boring machine, and installation of casing pipes.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	70	Site Prep Borrow and Spoil Area Maintenance

Description of Scope

• West Borrow area and wet spoil area maintenance during period of performance of excavation performance.
• Place soil and engineered features including erosion and sediment controls, and spread and compaction of soil fill.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	10	80	Site Prep Mass Excavation Documentation

Description of Scope

Generating as-built submittals of completed work including survey data for final subgrade, casing pipe installation, retaining wall placement plans and concrete related submittals.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	20		**Site Prep Select Fill**
Description of Scope									
This Control Account is for CNS scope per the As-Approved CD package for the **Site Preparation & Long Lead Procurement** CD-3A including placement of the mud mat and select fill, mobilization of contractors and supporting distributables, and final as-builts required to close out construction scope in this control account (This WBS Level is further defined in the levels below.)									

1	07	02	09	45	60	80	20	10	Site Prep Mud Mat
Description of Scope									
Once competent shale/bedrock is verified in main excavation, place mud mat. Coordinate with Excavation Subcontractor for placement of mud mat.									

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	20	20	Site Prep Select Fill
Description of Scope									
• Following mud mat placement, install select concrete fill and mineral aggregate base backfill; includes the areas supporting the Main Process Building, Mechanical Electrical Building, Salvage and Accountability Building, diesel generator, fire tank and pump building, and partial HEUMF Connector per design. • Install thermocouples, monitoring and data for the lifts identified in the design. • Install tower crane pedestals, including forming and pouring pedestals, and installing crane embedment and grounding. • Dewatering of excavated area for duration of the select fill scope of work.									

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Closure evidence file shall include the following: Select Fill and Mud Mat: Objective evidence that competent material determination/verification by a geotechnical engineer and CNS certification that the mud mat was placed in accordance with plans as

		specifications. Mineral Aggregate Backfill: QC documentation verifying the aggregate backfill was installed per design (RS attribute) is complete.

1	07	02	09	45	60	80	20	30	Site Prep Select Fill Mobilization, Demobilization, and Trailers

Description of Scope

- Mobilization of Subcontractor including delivery of construction equipment and materials to jobsite, completion of required training, and pre- mobilization documentation.
- Installation and maintenance of temporary Subcontractor trailers.
- Demobilization of Subcontractor including site remediation, removal and cleanup of equipment and temp facilities, removal of silt fence and erosion controls, completion of all subcontractor's punch list items.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	20	40	Site Prep Select Fill Documentation

Description of Scope

Generating red-line submittals of completed work including mud mat test and inspections, fill test and inspections, survey data for concrete elevation of each lift.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	30		**Site Prep Permanent Plant Subcontracts**
Description of Scope									
This Control Account is for CNS scope per the As-Approved CD package for the **Site Preparation & Long Lead Procurement** CD-3A including delivery of concrete for the mud mat and select fill, 50N standard penetration testing, MEB rebar slab purchase, and vendor engineering of the personnel and freight elevators for the MEB, SAB, and MPB (This WBS Level is further defined in the levels below.)									

1	07	02	09	45	60	80	30	30	Site Prep Select Fill Concrete & Delivery Subcontract
Description of Scope									
Concrete-related bulk procurements include concrete for the mud mat and select fill, tower crane pedestals, and any miscellaneous items; Includes delivery to the site of excavation from the UPF Batch plant. Additional equipment for concrete placement is not included.									

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Unit Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	30	40	Site Prep 50N Standard Penetration Testing Subcontractor
Description of Scope									
50 blow count standard penetration testing to confirm competent shale/bedrock.									

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Unit Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Closure evidence file shall include the following: Final acceptance of the last 50N standard penetration test. Acceptance by the Site Prep geologist (RS attribute). CNS verification of above documentation.

1	07	02	09	45	60	80	30	50	MEB Slab Rebar Purchase

Description of Scope

Long-lead procurement of rebar in preparation for construction of the MEB slab.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Unit Priced Procurement	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	30	60	Site Prep Personnel and Freight Elevator Vendor Engineering

Description of Scope

Work Package includes the post award vendor design for personnel and freight elevators.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	**80**	40		**Site Preparation Support & Distributables**

Description of Scope

This Control Account is for CNS scope per the As-Approved CD package for the **Site Preparation & Long Lead Procurement** CD-3A including non-manual support, non-manual distributables to support the team, and miscellaneous contracts to support completion of the CD-3A scope (This WBS Level is further defined in the levels below.)

1	07	02	09	45	60	80	40	05	Site Prep Misc Construction Services Labor

Description of Scope

This scope consists of labor activities that support construction but which are not associated with any one specific construction scope. Support is for CNS scope only and does not apply to Subcontractors:

- Material handling at the lay-down area

- Maintenance and inspection of tools
- Fire extinguisher inspections
- Chemical control and inventory
- Distribution of water/ice, materials, tools
- Site maintenance, including snow and ice removal and maintenance of project grounds
- Maintenance of roads and walkways (Excluding Haul Road during Excavation Subcontractor work)
- Job briefings, monthly safety meetings
- Electrical and mechanical service and support for temporary construction and field activities
- Install/maintain/remove other minor temporary construction facilities (e.g., short-term shops; i.e., sealands)
- Installation of Temp Power during site prep (Excluding Construction Power)
- Maintenance of West Borrow area, Wet Soil Spoil area, and Haul Road after Excavation Subcontractor completion (as required)
- Maintenance of Laydown area (as required).

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS Craft	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	06	Site Prep Wet Spoils Expansion

Description of Scope

Prepare the Wet Spoils area to support the excavation subcontractor, as per PROC-3.17-F003 and Addendums 01-03.

Method of Accomplishment	Status of Work Scope	Definition of Complete
BNI managed CNS direct-hire staff	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	10	Site Prep Title III Engineering

Description of Scope

Title III scope consists of maintenance of engineering documents and the review and approval of contract submittals. Activities include:

- Supporting pre-bid meetings.
- Supporting post-award construction meetings.
- Providing a Design Authority (DA) representative, as needed, to support construction.
- Responding as needed to Field Change Requests (FCRs), Field Change Notices (FM&O), and Requests for Information (RFIs).
- Incorporating as-built information and development of other applicable Title III documents.
- Personnel and Freight Elevator vendor submittal review and coding of submittals.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS, BOA engineers	Work Planned	Physical work is complete and technical issues with vendors are resolved, and all as-built information is accepted from vendors and as-builts documentation is complete and placed into Infoworks.

1	07	02	09	45	60	80	40	20	Site Prep BNI Field Non-manual services

Description of Scope

Construction management in the field for site preparation will be performed by UPF Construction including:

- Superintendents
- Field Engineers
- Subcontract Technical Representatives

This WBS element also includes support provided to Construction by UPF functional organization staff in the field, including:

- Field Procurement
- Quality Control (QC)
- Geotech support for Subcontractor activities (e.g. 50 blow count testing)
- Project Controls
- ES&H
- Administrative support and a field document management center

Includes support to internal and external reviews of construction progress and compliance with requirements.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	25	Site Prep BNI Field Non-Manual Materials

Description of Scope

Office supplies and services (copiers, computers, etc.) , not included in CSB office subcontract, required to support the Site Preparation and Long Lead CD-3A field non-manual team.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	30	Site Prep Project Integration Support Services

Description of Scope

Office support by UPF project functional organizations providing project integration support for site preparation and long-lead procurements CD-3A scope. The departments include (but not limited to):

- Project Management
- Project Controls
- Procurement
- Engineering • Environment, Safety and Health (ES&H)
- Startup Testing

Includes support to internal and external reviews of construction progress and compliance with requirements.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	40		Site Prep CNS Radcon Support

Description of Scope

CNS Y-12 personnel that perform Radiological control (RADCON) for support of the Site Preparation and Long Lead CD-3A scope only.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	The check and verification of the final truck and material that leaves the site is complete.

1	07	02	09	45	60	80	40	41		Site Prep CNS Support Services Security FY16-FY18

Description of Scope

CNS Y-12 personnel that perform Security responsibilities, including security support during Jack and Bore activities and retaining wall activities near PIDAS, installation of razor wire on the retaining wall, portal support required for the Site Preparation and Long Lead Procurement CD-3A scope.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	Completion of the razor wire installation, completion of the retaining wall and jack and bore activities, and final completion of the CD-3A scope for the portal security efforts. Objective evidence of Y-12 pro-force acceptance of all security features.

1	07	02	09	45	60	80	40	42		Site Prep CNS Non Manual Support

Description of Scope

CNS Y-12 personnel that perform

• DAR reviews and configuration control for any Y-12 affected systems and support of review of revised drawings associated with the CD-3A scope.

• Maintenance Non-Manual planning

• Mission Engineering (Y-12 support)

• Production support (if required) when tying into plant systems.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	Final revised drawings are complete (if required), and final work of tying into the plant's electrical and communication and potable water lines are complete and project closeout report is complete.

1	07	02	09	45	60	80	40	43		Site Prep CNS Manual Support

Description of Scope

- Y-12 FI&S support for work packages
- Maintenance, Labor, and other manual support
- Connection of utilities to the Temporary Construction Trailers
- Refuse/recycling, waste management

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	44		Site Prep CNS Safety Support

Description of Scope

CNS Y-12 personnel that perform safety and industrial health support outside of the daily RADCON and construction ES&H activities during construction.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Non-manual services	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	50	Site Prep Install Temporary Trailers

Description of Scope

Temporary construction trailers will be provided by lease and installed by the supplier in proximity to the construction site to provide construction housing until the CSB can be occupied. This includes the build out of cubicles and hard walled offices.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed priced subcontractor	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Trailers approved for occupancy.

1	07	02	09	45	60	80	40	60	Site Prep Maintain Trailers

Description of Scope

Maintenance of temporary construction facilities including temporary building/facility janitor services, and maintenance of rest facilities.

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS direct hire craft	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	61	Site Prep CSB Move In Labor

Description of Scope

Labor to complete CSB move-in; includes moving of personnel boxes, computers, desks, etc. that are not part of the CSB Outfitting Subcontractor

Method of Accomplishment	Status of Work Scope	Definition of Complete
CNS Y-12 and Subcontract Support	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Complete moving of items into the CSB (that are not related to materials being purchased and set-up by the CSB outfitting subcontractor).

1	07	02	09	45	60	80	40	62	Site Prep CSB Outfitting Subcontract

Description of Scope

An office subcontract will supply and install required amenities for the Construction Support Building erected under the SIS Subproject (WBS 1.07.02.09.45.25) to enable Construction managers, staff, and crafts to occupy the building during construction of UPF; includes partitions/cubicles, office equipment/furniture, installing data and phone wiring, installing data infrastructure, installing wireless network, craft lockers, etc.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Unit Rate Subcontractor	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Amenities installed in the CSB in accordance with the office supply subcontract and verified by procurement staff. Objective evidence of CNS acceptance.

1	07	02	09	45	60	80	40	70	Site Prep Tower Crane Procurement, Installation, & Maintenance

Description of Scope

Procurement of two tower cranes that will be used in building construction, including erection, certification, and maintenance.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Priced / Fixed Unit Price Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Tower crane is erected and passes certification for use. Maintenance is performed through the period of performance of the CD-3A scope (maintenance might not be required if MEB is ready to start prior to first planned maintenance).

1	07	02	09	45	60	80	40	80	Site Prep Construction Power Labor

Description of Scope

Installation of construction power across the construction site, as required to prepare site for post Site Prep construction. Scope excludes construction power for Site Prep activities which will be covered under Site Prep Misc Construction Services Labor work package.

Method of Accomplishment	Status of Work Scope	Definition of Complete

CNS direct hire craft	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	81	Site Prep Construction Power Materials

Description of Scope

Materials purchase for construction power for the Site Preparation CD-3A scope of work. Scope includes transformers, boxes, panels, etc. for construction.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Price Purchase Order	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	82	Site Prep West End Feeder Upgrade S/C

Description of Scope

The West End Feeder project will provide power distribution in support of UPF construction activities including the Concrete Batch Plant, Substation and planned Construction warehouse. This temporary line will begin at Pole 5269 of Line 1371 (The New Bear Creek Road power lines) and continue west along the Haul Road to the new Substation, the Concrete Batch Plant, and to the planned Rubb Tents/ New Warehouse. Four unfused cut-outs for maintenance and potential distribution changes have been placed strategically along the line at the tie-in points: substation, batch plant, and warehouse. This project consists of approximately 9,000 linear feet down the right of way with 34 Class 1 wooden poles using ACSR (Merlin) conductor. Power distribution for the Concrete Batch Plant consists of a cut-out switch on the North side of the Haul Road for isolation and an additional span across the road to the area in which the Batch will be constructed.

This scope does not include any EPC past the cut-out switches at the Batch Plant (e.g. sizing the fuses, fused cut-out, conduit installation, etc.). This scope has already been baselined in the Batch Plant Subcontract. Final tie-in for the construction warehouse, once approved, will also be completed by the warehouse contractor at a later date.

Clearing and grubbing the right-of-way is included (~2 acres).

Survey for permanent plant overhead line right of way, from Substation to Pole 5269 of Line 1371, is included in this West End Feeder scope.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Price Subcontract	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	85	Site Prep BNI Field Procurements & Materials

Description of Scope

Purchase of:

- Materials needed for installation and maintenance of utilities to the Temporary Construction Trailers/facilities & Subcontractor Trailers
- Materials for site maintenance (silt fence, gravel, ice melt, straw, seed, etc.)
- Materials for maintenance of roads and walkways (gravel, concrete, fencing, geotextile fabric, etc.)
- Sealands for short-term shops
- Miscellaneous/supplemental purchases during scope execution

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Price Purchase Orders	Work Planned	All physical work identified in the scope of the CD-3A package is complete and CNS has accepted installation and construction of defined scope. Support for subproject closeout report is complete.

1	07	02	09	45	60	80	40	90	Site Prep Construction Equipment, Tools & Supplies

Description of Scope

Purchase of:

- Hand tools: shovels, hammers, saws, drills, etc.
- Safety supplies (PPE) and consumables: hard hats, gloves, glasses, etc.
- Field Communications including two-way radios, wireless utilities
- Traffic Control: barrels, signs, etc.
- Construction equipment purchase and rental, including General Services Administration (GSA) vehicle agreements

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Price Purchase Orders and GSA agreements	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement. Note: Materials and equipment received and accepted by CNS.

1	07	02	09	45	60	80	40	95	Site Prep Misc Construction Subcontracts

Description of Scope

• Surveys to confirm mass concrete fill boundaries through mass excavation and final subgrade elevations.
• Independent subject matter expert (SME) testing of concrete, soil compaction, and penetration testing
• Hoisting and rigging activities.
• Trucking and hauling of soil, rock, and debris to approved disposal areas.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Fixed Unit Price Subcontractors	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	96	RS Firewater Supply Line Non-Labor

Description of Scope

Includes procurement of the Risk Significant (RS) materials required for the early installation of the underground fire protection distribution lines supporting the Salvage & Accountability Building (SAB). Materials to be procured under this WBS include the following: 10" RS HDPE, supporting HDPE connectors (i.e. 90 degree elbow, Flange Adapter, Backup Flange, Bolts), and RS Air/Vacuum release valves (ARV) and surrounding ARV Vaults.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Material Purchase Orders	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

1	07	02	09	45	60	80	40	97	RS Firewater Supply line Labor

Description of Scope

Includes labor supporting coordination, oversite, and installation of the Risk Significant (RS) materials required for the early installation of the underground fire protection distribution lines supporting the Salvage & Accountability Building (SAB). Scope includes the craft labor supporting installation of the distribution lines, supporting Field Non-Manual labor, and Engineering labor required for material requisition submittal reviews.

Method of Accomplishment	Status of Work Scope	Definition of Complete
Bechtel direct staff CNS direct staff	Work Planned	Completion of scope supported by the evidence cited in the standard closure evidence statement.

Reporting Requirements	
The Federal Project Director and Contracting Officer, with inputs from other Government personnel, will verify the on time submission of project reports that meet DOE/NNSA requirements contained in the Data Item Descriptions (DIDs). The Government will perform this verification by comparing the DOE/NNSA requirements contained in the following DIDs to the deliverables provided by the Contractor:	
Data Item Description	Title
DID-PM-0026/T	Monthly Project Report
DID-PRG-0022/T	Integrated Program Management Report (IPMR)
DID-PRG-0021	Monthly Status PARS II Report
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0027/T	Resource Loaded Schedule (Baseline and Forecast to be provided monthly)
DID-PM-0029/T	Total Project Cost
DID-PM-0036/T	Federal Project Director Quarterly Project Review (to be provided monthly)
DID-PM-0041/T	Project Closeout Report
DID-ENG-0002	As-Built Drawings
DID-ENG-0021	Engineering Drawings
DID-PM-0004	Project Completion Verification
DID-PM-0022	WBS & WBS Dictionary
DID-SAF-0017	Occurrence Report
DID-SAF-0018	Lesson Learned Report
NA	Monthly Labor Charges Report
NA	Weekly Construction Status Report

OT-CST-1006	Weekly Working Construction, Engineering, and Procurement Schedules. Shall be provided as hard copy AND native format.
OT-CST-1005	Daily Construction Status Reports
NA	Construction Work Packages
TBD	Weekly Work Plan (per Y17-95-64-818, Rev. 2)
DID-ENG-0026	Request for Deviation
DID-PM-0001	Change Control Board Log and Minutes
DID-PRG-0022	Contract Performance Report
DID-SAF-0005	Hazards Analysis Report
DID-SAF-0014	Integrated Safety Management Plan
DID-SEC-0003	Security Plan

APPENDIX B

COST PLUS INCENTIVE FEE (CPIF) MODEL/GRAPH

SP/LL CD-3A Incentive Fee - Terms

The Government will use the following CPIF Model terms for SP/LL fee calculation.

P_T = Target Price // Estimated Target Price ($) if all available fee earned.

F_A = Available Fee // Combined unrealized Target Fee and Schedule Fee ($).

C_T = Target Cost // Negotiated Target Cost ($).

F_T = Target Fee // Negotiated Target Fee ($).

F_S = Schedule Fee // Negotiated Schedule Fee ($).

C_{UT} = Under Target Cost // Actual Costs ($) when Maximum Fee realized.

F_{MAX} = Maximum Fee // *Maximum Fee ($) realized for Under Target Cost.*

C_{OT} = Over Target Cost // Actual Costs ($) when Minimum Fee realized.

F_{MIN} = Minimum Fee // *Minimum Fee ($) realized for Over Target Cost.*

C_{TAC} = Total Allowable Cost // Actual Cost ($) the Contractor can claim.

F_{TA} = Target Fee Adjustment // Calculated Fee Adjustment ($) for Under/Over.

F_{ATF} = Adjusted Target Fee // Calculated Fee Adjustment ($) applied to Target Fee.

F_{AFF} = Adjusted Final Fee * // Calculated Fee Adjustment ($) for Schedule.

P_C = Contract Price ** // Calculated Contract Price ($) after Final Fee applied.

* Final fee determination will be made using Government CPIF Excel model formulas.

** Earned fee rules apply in determining final Contract Price.

Share Ratios: Government Under/Over Target Shares, expressed as the Government percentage share of cost risk over the Contractor percentage share of cost risk.

Under Target Share = S_{GU}/S_{CU} // Government Share (%)/Contractor Share (%).

Over Target Share = S_{GO}/S_{CO} // Government Share (%)/Contractor Share (%).

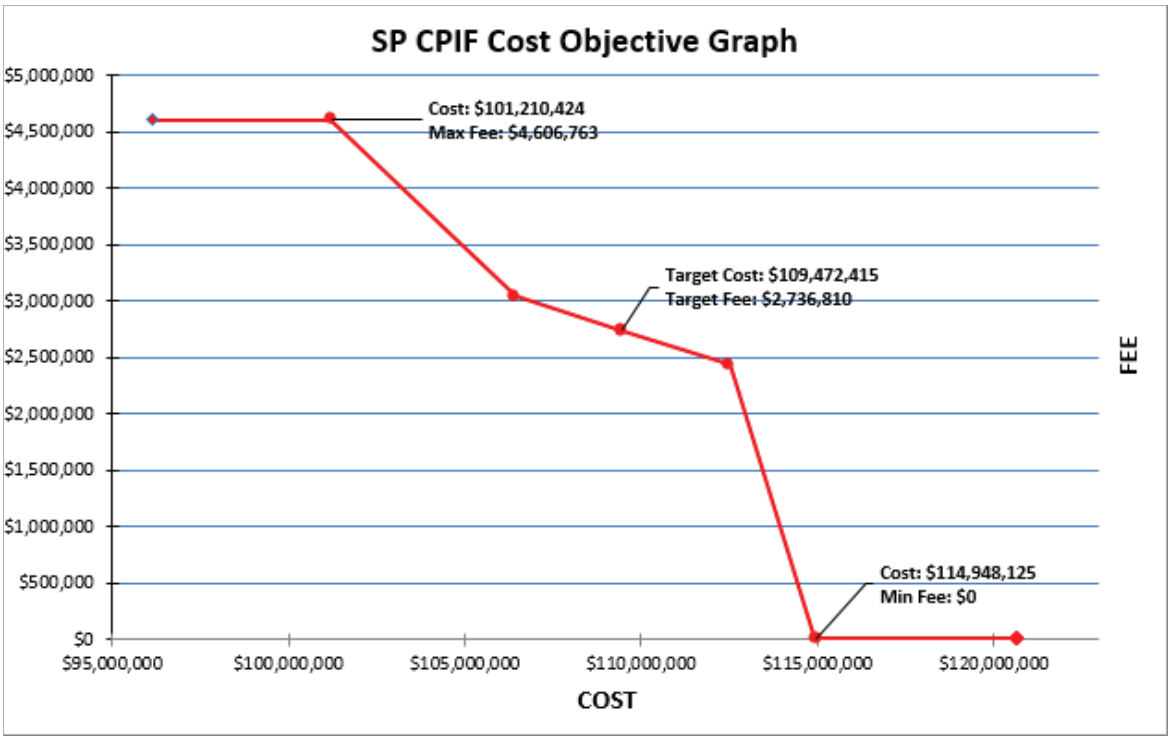


Figure 1: SP CPIF Cost Objective Graph

APPENDIX C
GOVERNMENT OVERSIGHT MODEL

Cost Objective: The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but not limited to:

- Complete authorized scope in accordance with the approved Performance Measurement Baseline; provide timely project reporting.
- Manage a deliverable-based Work Breakdown Structure (WBS); cost control accounts, work packages and planning packages consistent with WBS/scope.
- Use established DOE earned value methods, measure work accomplishment, and assess project performance; perform variance analysis to identify, correct, and report problems; and monthly evaluate Estimates at Completion (EAC).
- Expend funds and resources that optimally provide the maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant to the GAO Best Practices for Developing and Managing Capital Costs Guide and DOE G 413.3-21, Cost Estimating Guide; consider life cycle cost when evaluating proposed project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, e.g., designs, specifications, plans, procurement, construction, testing, and commissioning; demonstration of implementation of an approved DOE O 414.1D Quality Program.
- Identify, quantify, avoid and mitigate technical, programmatic, schedule, and cost risks.

APPENDIX C - Continued

Schedule Objective: The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix, Appendix N, DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but not limited to:

- Execute scope in accordance with NNSA approved Project Execution Plans.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify Work Breakdown Structure (WBS) elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, and technology, procurement, construction, testing, and commissioning); incorporate labor, material and equipment resources and ensure reasonable/available.
- Manage a credible critical path as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is reasonable. Incorporate subcontracted activity into schedule/critical path to ensure visibility to the Government.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a Federal, State, or local regulatory agency; excellent safety DART/TRC rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to CO/FPD.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication and construction expeditiously without major problems or delays (Title II).
- Provide Resident Engineering representation as directed to support Construction and oversee the design's intent and requirements; exceptions are rare to non-existent without problems or delays (Title III).
- Perform pre-award/award/post-award, surveillance/oversight functions to support

and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.

- Identify, quantify and mitigate project schedule risks; perform schedule risk assessments to predict the probability of completing on time.

Uranium Processing Facility

Substation Subproject
Fee Structure

Annex 5 (Rev 3)

National Nuclear Security Administration

This document has been reviewed and confirmed to be UNCLASSIFIED and contains no UCNI.
Name: Steve Wellbaum
Date: 01/09/2020
eDC/RO ID: 176363

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APPROVALS

[redacted]

12.6.2019
Date

John P. Howanitz, UPF Project Director
Consolidated Nuclear Security, LLC

[redacted]

12/6/19
Date

Scott S. Crawford, UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

[redacted]

1/9/20
Date

Dale E. Christenson, Federal Project Director
NNSA, UPF Project Office

[redacted]

1/9/20
Date

Philip M. Kirby, Contracting Officer
NNSA, UPF Project Office

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REVISION LOG

Revision	Date	Description	Total Pages	Affected Pages
0	April 2017	Initial Issue	Front matter, i–ix; Body; Appendix A; Appendix B; Appendix C,; and Appendix D	All
1	April 2018	Change to estimated cost/fixed fee related to installation of 3-phase temporary power and removal of six I&C activities.	Front matter, i–ix; Body; Appendix A; Appendix B; Appendix C,; and Appendix D	3-5, 10.
2	September 2018	Revision incorporates (3) separate changes to estimated cost/fixed fee: (1) Procurement Pool removal, (2) LOE Adjustment, and (3) revised Temp Power scope.	Front matter, i–ix; Body; Appendix A; Appendix B; Appendix C; and Appendix D	3, 11
3	August 2019	Change to estimated cost/fixed fee related to LOE Adjustment. Adjusted milestone dates for Permanent Comms, Turnover, and completion of CNS Support.	Appendix A	3, 5, 7, 9-11,

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3 Approach 1
4 Establishing Annex 1
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6 Change Procedures 2
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APPENDIX C: Government Oversight Model 22
APPENDIX D: References 24

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ACRONYMS

CD	Critical Decision
CNS	Consolidated Nuclear Security, LLC
CO	Contracting Officer
COR	Contracting Officer Representative
DARTCR	Days Away Restricted or Transferred Case Rate
DID	Data Item Description
DOE	U.S. Department of Energy
EAC	Estimate at Completion
ENS	Emergency Notification System
EPC	Engineering, Procurement, Construction
FIR	Fire Alarm
FPD	Federal Project Director
GAO	General Accounting Office
IMS	Integrated Master Schedule
IPMR	Integrated Program Management Report
IPT	Integrated Project Team
kV	Kilovolt
M&O	Management and Operating
MVA	Megavolt Ampere
NNSA	National Nuclear Security Administration
PA	Public Address
PARS II	Project Assessment and Reporting System II
SME	Subject Matter Expert
SS	Substation Subproject
TBD	To Be Determined
TVA	Tennessee Valley Authority
UMS	Utility Monitoring System
UPF	Uranium Processing Facility
UPO	UPF Project Office
UTN	Unclassified Telecommunications Network
WBS	Work Breakdown Structure
Y-12	Y-12 National Security Complex

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1 INTRODUCTION

The Uranium Processing Facility (UPF) Substation Subproject (SS) scope, herein referenced as "SS," was authorized by the National Nuclear Security Administration (NNSA) to construct a new 161 kV – 13.8 kV air-insulated, outdoor substation and transmission lines with the capability to meet both the UPF operations and longer-term Y-12 power needs. The SS scope is divided between Consolidated Nuclear Security, LLC (CNS), herein referenced as "Contractor," and the Tennessee Valley Authority (TVA), as defined in the UPF Substation Subproject Project Execution Plan (Ref. 9), which establishes the formal Critical Decision (CD) -2/3 scope execution plan.

The SS scope supports the UPF Project by completing key infrastructure construction work. The SS scope is best characterized as standard commercial work, and does not implement new technologies. The Contractor's scope shall be managed through the Project's construction management baseline to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base, Statement of Work, and Level II/III Milestones that must be achieved to not impact the UPF CD-4 date (4th Qtr, FY 2025).

The SS CD-2/3 scope shall support the Enriched Uranium Mission, with timely, cost effective, high quality deliverables.

2 PURPOSE

The SS Fee Structure (Annex 5), herein referenced as "SS Annex," is a subset of the overarching Contract, Section J, Appendix B-2, "UPF Fee Plan," that documents the Performance Objectives and Fee arrangement, in which SS scope performance will be evaluated. The purpose of the SS Annex is to document the fixed fee structure, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a "contract price" for the SS scope.

3 APPROACH

The desired performance of the Contractor is to deliver high quality SS deliverables (technical requirements) and integration support that will ultimately aid in the delivery of a UPF that is fully capable of meeting all Department of Energy/National Nuclear Security Administration (DOE/NNSA) mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The desired goal is to properly incentivize the Contractor to deliver SS scope, by establishing a fair and reasonable contract price for meeting SS performance objectives. Many performance objectives under the divided SS scope are tied to TVA performance. The Contractor will not be penalized for circumstances unrelated or not attributable to Contractor performance.

4 ESTABLISHING ANNEX

The SS Annex shall be approved and incorporated into the Contract by the Contracting Officer (CO), modifying Section J, Appendix B-2, "UPF Fee Plan."

The Government will primarily incentivize the Contractor using a Fixed Fee arrangement, unless otherwise documented in the Annex.

5 ANNEX OVERSIGHT

The Government Oversight Model, Appendix C, describes the approach NNSA will use for conducting surveillance and oversight of SS performance objectives and contract deliverables. The CO and Contracting Officer's Representatives (CORs), with input from functional area managers, will measure how the key performance objectives of the Contract are met. The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives (i.e., final outcomes) are achieved. The CO/COR may notify the Contractor anytime during performance of the Contract to address cost, schedule, or any performance concerns needing attention. The elements of the oversight model as outlined in Appendix C will be applied as is appropriate for the scope assigned to the Contractor.

6 CHANGE PROCEDURES

The SS Annex may be updated as necessary during Contract performance. These updates may include, but are not limited to, required changes caused by new authorized scope, project phasing, approved change control, or establishing/adjusting fee incentives and performance objectives. Any changes shall be codified by a Contract modification within Section J, Appendix B-2, “UPF Fee Plan.”

All changes, including SS Baseline Changes, are subject to the thresholds outlined in the UPF Project Execution Plan (Ref. 7), and the UPF Substation Subproject Project Execution Plan (Ref. 9).

APPENDIX A: Performance Objectives

Fee – Summary for SS	
Estimated Cost	$5,374,177
Fixed Fee (F_F)	$268,711
Contract Price (PC), includes fixed fee	$5,642,888
NOTE: NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report. For the purposes of this negotiated annex, all fee related to the cost objective is provisional to the end of the subproject (UPF CD-4) or contract, subject to the final fee determination and Contract modification.	

Contract Price - Change Log				
Modification		**Estimated Cost**	**Fixed Fee**	**Contract Price**
Rev 0		$3,660,819	$183,042	$3,843,861
Rev 1		+$66,839	+$3,342	+$70,181
		$3,727,658	**$186,384**	**$3,914,042**
Rev 2	Procurement pool	(43,185)	($2,159)	($45,344)
	LOE Adjustment	+$934,372	+$46,719	+$981,091
	Temp Power	+$21,687	+$1,084	+$22,771
		$4,640,531	**$232,028**	**$4,872,560**
Rev 3	LOE Adjustment	+$617,610	+$30,881	+$648,491
	FY19 Distribution	+$116,036	+$5,802	+$121,838
		$5,374,177	**$268,711**	**$5,642,888**

Scope – Summary
The Contractor's portion of scope, as defined in the UPF Substation Subproject Project Execution Plan (Ref. 9) including the following: Support the Substation CD-2/3 package, and Engineering, Procurement, Construction, and Testing and Commissioning of the Utility Management System, Fire Alarm Communications, Emergency Notification System, Telecommunications, and Temporary Power. – Review and Comment on the 30%, 60%, and 90% design packages to verify that TVA design conforms to the UPF Substation Performance Specification (Engineering Specification for UPF 161 kV Main Electrical Substation – TVA Design-Build (Ref. 8). – Participate in Integrated Project Team (IPT) meetings. – Perform Technical Information Office, Document Management Center, and Derivative Classification review services. – Provide engineering and technical support (electrical substation and power transmission) to clarify the Management and Operating (M&O) contractor requirements. – Provide construction integration and coordination of plant services and support to TVA, including the major SS scope tasks and responsibility for performing each task. – Participate in walk downs and inspections of TVA's 13.8 kV work, as Subject Matter Experts (SME) to the UPF Project Office (UPO) SS Federal Project Director (FPD), upon request. This includes walk downs and inspections the Contractor performs to accept the 13.8 kV portion. **NOTE:** Major scope elements are defined in the Work Breakdown Structure (WBS) section and schedule milestone – deliverable summary, as extracted and further defined from the UPF Substation Subproject Integrated Cost & Schedule (Ref. 10).

Critical Decision (CD) - Summary	
SS CD-4	June 24, 2020
UPF CD-4	Forecasted – 4th QTR FY 2025

Key Performance Parameters	
1	Electrical Capacity: Provide a substation at capacity of 70 MVA.
2	Electrical Service Availability: Electrical systems are built and tested to meet the performance specification and approved test plans. All tested systems are functional (meeting performance specification and appropriate codes and standards) and are ready to be connected to future 13.8 kV distribution systems.

3	System Reliability: Provide a system that can provide at least two independent main 161 kV power feeds to the substation. Provide redundant capability to feed the 13.8 kV distribution system.
4	Communications and monitoring: All required communications, security, and monitoring systems are connected and communicating back to Y-12 Systems.
NOTE: Contractor performance is limited to delivery of temporary power for TVA site, installation of communication tie-ins, and support to UPO during the development of the design, reviews, construction, and testing, turnover, and closeout. SS CD-4 is dependent upon delivery by third parties of a functionally operable Substation that is suitable for its intended purpose.	

Schedule Milestones - Summary	
30% Design Review: Complete, Document Results, and Resolve Issues	January 27, 2017
60% Design Review: Complete, Document Results, and Resolve Issues	July 10, 2017
90% Design Review: Complete, Document Results and Resolve Issues	October 23, 2017
Establish Temporary Power for TVA Site Activities	November 1, 2018
Establish All Communications/ Alarms Tie-Ins To Plant Systems	October 18, 2019
Complete Turnover to Operations	December 12, 2019
Complete CNS Required Support	January 31, 2020

SCHEDULE MILESTONES – DELIVERABLE SUMMARY[1]

<table>
<tr><th colspan="2">Deliverable</th><th>Completion Date[3]</th><th>Impact Date</th></tr>
<tr><td colspan="2">Complete CNS Discrete Scope – Temporary Power</td><td>Nov 1, 2018</td><td></td></tr>
<tr><td>Provisional/Earned at Milestone</td><td>Earned Value at Impact [2]</td><td colspan="2" rowspan="2"></td></tr>
<tr><td>$0/$ 22,929</td><td>$0</td></tr>
<tr><td colspan="4">Definition of Complete:
<u>Establish Temporary Power for TVA Site Activities: WBS: 1.07.02.09.45.70.45</u>
Installation, inspection, and acceptance of temporary power work scope. Contractor has verified that the deliverable meets power requirements as established in the Systems, Structures, and Components Interface Control Document. Evidence of completion will be provided by Contractor submission of a certification of completion.</td></tr>
</table>

<table>
<tr><th colspan="2">Deliverable</th><th>Completion Date[3]</th><th>Impact Date</th></tr>
<tr><td colspan="2">Complete CNS Discrete Scope – Communication</td><td>October 18, 2019</td><td>January 18, 2020</td></tr>
<tr><th>Provisional/Earned at Milestone</th><th>Earned Value at Impact [2]</th><td colspan="2" rowspan="2"></td></tr>
<tr><td>$0/$79,172 Communications</td><td>$0</td></tr>
<tr><td colspan="4">Definition of Complete:
<u>Establish All Communications/Alarms Tie-Ins To Plant Systems: WBS: 1.07.02.09.45.70.45</u>
Installation of Emergency Notification System. Installation, inspection, and acceptance of communication fiber optic trunk link and tie-ins, given delivery by TVA of a substation fit for its intended use. CNS will validate communications capability through submission of certification of completion;
The CNS ability to start construction is not delayed except in locations where it is physically impossible due to ongoing TVA construction activities. CNS shall have a period of performance of no less than 89 working days to complete final testing and system certification; with the forecast start of the CNS activity to commence with the finish of TVA schedule activity number 33JL192A, Substation Construction 100% Complete. This does not preclude CNS from starting activities earlier, where feasible.
In the event that CNS is not able to meet the completion date due to schedule delays and fault by TVA, pursuant to the annex change procedures, the CO will adjust the contract accordingly.</td></tr>
</table>

APPENDIX A: Performance Objectives

Deliverable		Completion Date[3]	Impact Date
CNS Interim Support through December 2017		December 31, 2017	
Provisional/Earned at Milestone	**Earned Value at Impact [2]**		
$20,000/$0	$0		
Definition of Complete: Design Reviews/IPT Support/Site Services Support/Substation Acceptance: WBS: 1.07.02.09.45.70.40 TVA accomplishment of Final Design Review/SS Engineering Complete milestone: TVA has submitted final design package to UPO. Delays in submission not attributable to Contractor fault or delay within the CNS Support Scope shall not be used as a basis to deny or postpone payment of provisional fee.			

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<table>
<tr><th colspan="2">Deliverable</th><th>Completion Date[3]</th><th>Impact Date</th></tr>
<tr><td colspan="2">CNS Design Support and Turnover to Operations</td><td>December 12, 2019</td><td></td></tr>
<tr><td>Provisional/Earned at Milestone</td><td>Earned Value at Impact [2]</td><td colspan="2" rowspan="2"></td></tr>
<tr><td>$0/$28,882</td><td>$0</td></tr>
<tr><td colspan="4">Definition of Complete:
<u>30/60/90 % Design Review—Complete, Document Results, and Resolve Issues: WBS: 1.07.02.09.45.70.40</u>
The Contractor shall issue a letter documenting formal comments from their staff, including review by the M&O Design Authority. The letter shall verify that the TVA-submitted design meets or conforms to the UPF Substation Performance Specifications. If the Contractor is unable to verify that the design conforms to specifications, then staff comments will note areas of variance.
<u>Turnover to Operations: WBS: 1.07.02.09.45.70.40</u>
Contractor has confirmed that all TVA-performed functional tests, identified in the TVA developed test plan, established under the submittal register are complete and sufficient. Contractor has completed all pre-operational testing, based upon a substation that is complete and suitable for its intended use. Contractor has validated operational capability through participation in TVA’s acceptance and turnover process (e.g., walkdown sign-in rosters). The Contractor shall provide evidence of completion through submission of the TVA turnover package, real property transfer record, or other record or document that authorizes the substation to be placed into service on Y-12. Contractor shall forecast the CNS activity to commence with the finish of TVA schedule activity number 33IWL92E, TVA In-Service Complete.</td></tr>
</table>

<table>
<tr><th colspan="2">Deliverable</th><th>Completion Date[3]</th><th>Impact Date</th></tr>
<tr><td colspan="2">Complete CNS Required Support</td><td>January 31, 2020</td><td></td></tr>
<tr><th>Provisional/Earned at Milestone</th><th>Earned Value at Impact [2]</th><td colspan="2" rowspan="2"></td></tr>
<tr><td>$0/$3,052</td><td>$0</td></tr>
<tr><td colspan="4">Definition of Complete:
<u>CNS Support TVA and UPO to Achieve Pine Ridge SS Completion: WBS: 1.07.02.09.45.70.40</u>
Support shall continue as required until TVA is 100% complete with the project: the substation has been accepted, deemed suitable for its intended use, all punchlist items are complete, all submittals required by the submittal register have been received, and all close out records have been received by December 2, 2019. Support includes, but is not limited to, the following: IPT meetings, Technical Information Office/Derivative Classifier Review/Document Management Center, Engineering and Technical, construction integration, plant coordination, and SME to UPO.</td></tr>
</table>

SCHEDULE MILESTONE NOTES

[1]Schedule deliverables are tied to schedule milestone dates and completion definitions, including any logical ties to WBS structure and standard closure evidence.

[2]Each milestone's Earned Value at Impact ($0) is achieved on the Impact Date for circumstances related and attributable to CNS performance.

[3]All completion criteria are pursuant to DOE O 413.3B (Ref. 2) and assume high quality deliverables, with no deficiencies (major finding(s) attributable to significant scope, cost, schedule, or safety impacts) that would prevent the project team from executing baseline.

	Schedule of Values – Fee Liquidation Schedule[1]				
Paid[2]	**Scope**	**Fixed Fee**			
		Cost Objective		**Schedule Objective**	
		Provisional	**Earned**	**Provisional**	**Earned**
On Completion	**Complete CNS Discrete Scope:**				
	Establish Temporary Power for TVA Site Activities WBS: 1.07.02.09.45.70.45	$55,527			$23,249
	Establish All Communications/ Alarms Tie-Ins To Plant Systems WBS: 1.07.02.09.45.70.45	$41,858			$79,172
On Completion	**Complete CNS Required Support[3] and Turnover to Operations:**				
	Complete 30% Design Review WBS: 1.07.02.09.45.70.40	$6,374			—
	Complete 60% Design Review WBS: 1.07.02.09.45.70.40	$6,374			—
	Complete 90% Design Review WBS: 1.07.02.09.45.70.40	$6,374			—
	CNS Interim Support through December 2017 WBS: 1.07.02.09.45.70.40	$5,000		$20,000	
	Turnover to Operations WBS: 1.07.02.09.45.70.40	$12,849			$28,882
	Complete CNS Required Support				$3,052
TBD	Final Fee Determination[4, 5]	$134,356	UPF CD-4		$134,355

SCHEDULE OF VALUES NOTES

[1]Schedule incentives are tied to schedule milestone dates and completion definitions, including any logical ties to WBS structure and standard closure evidence.

[2]All completion criteria are pursuant to DOE O 413.3B (Ref. 2) and assume high quality deliverables, with no deficiencies (major finding(s) attributable to significant scope, cost, schedule or safety impacts) that would prevent the project team from executing baseline.

[3]Contractor shall provide written notice to the CO whenever they have reason to believe that costs expected to incur under the CNS support control account (WBS: 1.07.02.09.45.70.40) will exceed 75% of the level of effort budget. Contractor shall have the burden of proof for demonstrating and providing the basis for any adjustments or unforseen conditions outside the December 2019 basis for CNS support to go, including detailed labor charges. The parties may agree to adjust the TVA support budget prior to the final fee determination, including reportioning CNS Support services and/or revising the Annex as necessary. CNS shall true up the Contract Budget Base (Performance Measurement Baseline and Management Reserve) to reflect any unused CNS support budget, and return any unused portion to the FPD's contingency.

[4]The NNSA will make a Final Fee Determination for cost objectives after NNSA approval of UPF CD-4 and acceptance of the UPF closeout report.

[5]The estimated cost contains an allowance event trigger for fixed unit rate items associated with the communications portion of the CNS discrete scope. As a result, the estimated contract price for this Annex, inclusive of fee, will be validated and adjusted by NNSA to reflect any additional required installation and/or impacts prior to the final fee determination. However, CNS shall have the burden of proof for demonstrating and providing the basis for any adjustments. See the Allowances section for the process for triggering unit rate adjustments for the estimated contract price.

APPENDIX A: Performance Objectives

Allowances – Unit Rate Items			
ID	**Description/Validation**	**Unit**	**Rate**
1	Trenching	yd^3	$150.96
3	Ductbank	yd^3	$2,190.92
4	Conduit	LF	$182.42
7	Wire and Cable	LF	$14.89
9	Manholes	each	$25,747.12
11	Terminations	each	$146.91
12	Grounding	LF	$39.61
13	Overhead Lines (Poles)	each	$10,790.74
14	Jack and Bore	LF	$8,074.59
10	BNI Non Manual	hour	$125.86
11	CNS Non Manual	hour	$190.39
Notes: 1 – The unit rate allowances will be used by NNSA for validating and calculating any potential adjustment to the estimated contract price in the event that additional units are required.			

Allowance Requirements –Unit Rate Items
In the event any or all three initial subproject assumptions, outlined below, do not apply, i.e., the event trigger, CNS shall immediately notify the CO via formal written notice. **Initial Subproject Assumptions:** (1) The connection and circuit capacity at pole K2648 remains viable for the Unclassifed Telecommunications Network, Utility Monitoring System, Emergency Notification system/Public Address, Fire Alarm (FIR), and Communications uses, (2) the FIR connection to Y-12 is not a Class A loop, and (3) conflicts resulting from the Y-12 routing of 13.8 kV distribution lines are not present. **Event Trigger:** If an event trigger is realized, CNS shall provide notice to the CO, followed within 30 calandar days by supporting estimates reflective of the new design and an explanation of why the assumptions are no longer valid. The CO shall render a determination within 20 calandar days of receiving the estimate. The parties shall equitably adjust the fee annex for the additional units agreed to. CNS has the burden of proof in demonstrating final quantities and schedule impacts.

Work Break Down Structure (WBS)									
WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	70	45			**Establish Temporary Power for TVA Site Activities**
Description of Scope									
Provide temporary power to support both the TVA trailers (including power for lights, climate control, and office equipment) and all construction equipment (including welders, power tools, lighting, safety items, etc.) at the Substation switch yard. The understandings of temporary power requirements and access points for this power will be documented in a Systems, Structures, and Components Interface Control Document. The power pole(s) shall be installed on the south side of the Haul Road in the vicinity of the SS yard in such a way that provides ready access to the power access point(s).									

Work Break Down Structure (WBS)									
WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	70	45			**Establish All Communications/Alarms Tie-Ins To Plant Systems**
Description of Scope									
Permanent installation of all necessary communication trunk lines from the plant to the tie-in point in the TVA provided Substation. Permanent installation of Emergency Notification in the Substation. Upon delivery of a functionally operable Substation that is suitable for its intended purpose, connect all required communications, security, and monitoring systems to the Substation. All systems will be tested and confirmed functional/fit for intended use by the Contractor.									

Work Break Down Structure (WBS)									
WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	70	40			**Design Reviews/IPT Support/Site Services Support/Substation Acceptance**

Description of Scope

Reviews

- Review and comment on the 30%, 60%, and 90% design packages to verify TVA design conforms to the project performance specification. The M&O participation in the 30/60/90% design review shall include all appropriate functional areas.

Support

- Attend and contribute to the Substation IPT meetings with expertise that includes Security, Engineering, Project Management, Environmental, Safety and Health, Operations and Maintenance.
- Provide Technical Information Office, Documents Management Center and Derivative Classification review services, as needed.
- Provide engineering and technical support (electrical substations and power transmission) to clarify CNS requirements.
- Function in an SME capacity for UPO.
- Provide construction integration and coordination of plant services and support to TVA, including processing construction permits; lock out/tag out; identifying areas for laydown, parking, and construction trailers; connecting temporary construction power; process badging requests; providing radiological control services to TVA; providing input, rules, and guidance for waste disposition; coordinating security, information technology support, and utility outages and connections.
- Support shall continue as required until TVA is 100% complete with the project and all documents closed out by 02-Dec-2019.
- Provide adequate safety services during construction activities upon Government request.

Acceptance

- Participate in walk downs and inspection of TVA's 13.8 kV work, as SME advisors to Substation FPD, upon request. These include those necessary for CNS to accept the 13.8 kV portion of the UPF Substation yard.

Work Break Down Structure (WBS)									
WBS Level									Title
1	2	3	4	5	6	7	8	9	
1	07	02	09	45	70	40			**Turnover to Operations**
Description of Scope									
Relevant work identified in the Transition and Turnover Plan for the Pine Ridge 161-kV Substation (Ref. 7) is completed and the turnover package is accepted by Utilities Management for future operations and maintenance. Using a comprehensive substation submittal register provided by the Government, Contractor has confirmed that the tests performed by TVA were completed and sufficient; that the M&O has completed all the pre-operational testing (component and integrated systems) and confirmed possession of all documentation necessary to accept ownership and all operational responsibilities for the 13.8 kV equipment in the substation yard (as depicted by the UPF Substation Performance Specification [Ref. 8]). The M&O will confirm that the 13.8 kV components and systems meet all internal requirements; and training is complete. Additional activities in the Turnover plan that cover the connection of 13.8 kV power lines to the MEB and Y-12 are not part of the SS scope.									

Reporting Requirements
The FPD and CO, with inputs from other Government personnel, will verify the on-time submission of project reports that meet DOE/NNSA requirements contained in the Data Item Descriptions (DIDs). The Government will perform this verification by comparing the DOE/NNSA requirements contained in the following DIDs to the deliverables provided by the Contractor.

Data Item Description	**Title**
DID-ENG-0002	As-Built Drawings
DID-ENG-0021	Engineering Drawings
DID-ENG-0026	Request for Deviation
DID-PM-0001	Change Control Board Log and Minutes
DID-PM-0001/T	Document of Trend Board/Change Control Board Meetings
DID-PM-0004	Project Completion Verification
DID-PM-0022	WBS & WBS Dictionary
DID-PM-0026/T	Monthly Project Report
DID-PM-0027/T	Resource Loaded Schedule (Baseline and Forecast provided monthly)
DID-PM-0029/T	Total Project Cost
DID-PM-0036/T	Federal Project Director Quarterly Project Review (provided monthly)
DID-PM-0041/T	Project Closeout Report
DID-PRG-0001	Checkout, Testing, and Operations Acceptance
DID-PRG-0009	Transition to Operations Plan
DID-PRG-0021	Monthly Status Project Assessment and Reporting System (PARS) II Report

APPENDIX A: Performance Objectives

Data Item Description	Title
DID-PRG-0022/T	Integrated Program Management Report (IPMR)
DID-SAF-0005	Hazards Analysis Report
DID-SAF-0014	Integrated Safety Management Plan
DID-SAF-0017	Occurrence Report
DID-SAF-0018	Lesson Learned Report
DID-SEC-0003	Security Plan
OT-CST-1005	Daily Construction Status Reports
OT-CST-1006	Weekly Working Construction, Engineering, and Procurement Schedules (provided as hard copy and native format)
NA	Monthly Labor Charges Report
NA	Weekly Construction Status Report
NA	Construction Work Packages
NA	Weekly Work Plan (in accordance with Y17-95-64-818) (Ref. 11)

APPENDIX B: Fee Structure

SS Fee Structure - Terms
The Government will use the following fee structure for SS fee calculation. P_C = Contract Price ** // Negotiated Contract Price ($), including fee. F_F = Fixed Fee // Negotiated Fixed Fee ($). F_{AFF} = Adjusted Final Fee * // Fee Adjustment ($) for any impacts. * Final fee determination will be made by Government. ** Earned fee rules apply in determining final Contract Price.

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APPENDIX C: Government Oversight Model

Cost Objective: The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE O 413.3B (Ref. 2) and ANSI-EIA-748-B (Ref. 1), or as defined in the Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but is not limited to the following:

- Complete authorized scope in accordance with the approved Performance Measurement Baseline; provide timely project reporting.
- Manage a deliverable-based WBS; cost control accounts, work packages, and planning packages consistent with WBS and scope.
- Use established DOE earned value methods, measure work accomplishments, and assess project performance; perform variance analysis to identify, correct, and report problems; and evaluate monthly Estimates at Completion (EAC).
- Expend funds and resources that optimally provide maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant to the GAO Cost Estimating and Assessment Guide (Ref. 5) and DOE G 413.3-21, Cost Estimating Guide (Ref. 3); consider life cycle cost when evaluating proposed Project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, (e.g., designs, specifications, plans, procurement, construction, testing, and commissioning); and demonstrate implementation of an approved DOE O 414.1D, Quality Assurance (Ref. 4).
- Identify, quantify, avoid and mitigate technical, programmatic, schedule, and cost risks.

Schedule Objective: The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix N, DOE O 413.3B (Ref. 2), and ANSI-EIA-748-B (Ref. 1), or as defined in the Contract.The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but is not limited to the following:

- Execute scope in accordance with NNSA approved Project Execution Plans.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify WBS elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, technology, procurement, construction, testing, and commissioning); incorporate reasonable and available labor, material, and equipment resources.
- Manage a credible critical path, as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is reasonable. Incorporate subcontracted activity into schedule/critical path to ensure visibility to the Government.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a federal, state, or local regulatory agency; excellent safety Days Away Restricted or Transferred Case Rate (DARTCR) rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to CO/FPD.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication, and construction expeditiously without major problems or delays (Title II).
- Provide Resident Engineering representation as directed to support Construction and oversee the design's intent and requirements; exceptions are rare to non-existent without problems or delays (Title III).
- Perform pre-award/award/post-award, surveillance/oversight functions to support and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.
- Identify, quantify, and mitigate project schedule risks; perform schedule risk assessments to predict the on-time completion probability.

APPENDIX D: References

1. ANSI-EIA-748-B, Earned Value Management Systems (EVMS)
2. DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets
3. DOE G 413.3-21, Cost Estimating Guide
4. DOE O 414.1D, Quality Assurance
5. GAO-09-3SP, GAO Cost Estimating and Assessment Guide
6. PL-PJ-801768-A006, UPF Project Execution Plan, (UPF PEP), Project Number 06-D-141
7. PL-PM-801768-A051, Transition and Turnover Plan for the Pine Ridge 161-kV Substation
8. PS-EE-801768-A001, Engineering Specification for UPF 161 kV Main Electrical Substation – TVA Design-Build
9. UPO-PL-95-A007, UPF Substation Subproject Project Execution Plan
10. UPO-PL-95-A012, UPF Substation Subproject Integrated Cost & Schedule
11. Y17-95-64-818, UPF Construction Weekly Work Plan

Uranium Processing Facility (UPF)
Project Fee Structure

Master Annex
Revision 3



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APPROVALS

[redacted]

9.4.2019

John P. Howanitz, UPF Project Director
Consolidated Nuclear Security, LLC

Date

[redacted]

9/4/19

Scott S. Crawford, UPF Prime Contracts Manager
Consolidated Nuclear Security, LLC

Date

[redacted]

9/5/19

Dale E. Christenson, Federal Project Director
NNSA, UPF Project Office

Date

[redacted]

9/5/2019

Michael C. Bocskovits, Contracting Officer
NNSA, UPF Project Office

Date

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REVISION LOG

Revision	Date	Description	Total Pages	Affected Pages
0	September 24, 2018	Initial Issue Cost Objective only. Appendix A-4 Schedule Objective and Appendixes B, thru G to be completed later.	Front matter, ii–x; Body, 11-16; Appendix A, 17-24; Appendix B, 25; Appendix C, 26; Appendix D, 27; Appendix E, 28; Appendix F, 29; and Appendix G, 30.	All
1	November 28, 2018	Added Provisional Fee Liquidation Model, Schedule Objective, Schedule of Values, WBS, Articles of Agreement, and Government Oversight Model.	Front matter, ii–x; Body, 11-20; Appendix A, 21-27; Appendix B, 28-29; Appendix C, 30; Appendix D, 31; Appendix E, 32-63; Appendix F, 64; Appendix G, 65; Appendix H, 66-68; and Appendix I, 69.	All
2	April 15, 2019	Added Acronyms. Updated Cost Objective tables. Corrected Schedule of Values – Fee Liquidation Schedule. Added Schedule Milestone Closure Evidence, Special Reporting Requirements, Government Oversight Model, and References.	Front matter, ii–ix; Body, 11-19; Appendix A, 20-27; Appendix B, 28-29; Appendix C, 30-33; Appendix D, 34-56; Appendix E, 57-75; Appendix F, 76; Appendix G, 77-79.	All
3	August 28, 2019 Substation CD-4 Admin Change March 13, 2020	Corrects UPF Performance Baseline (PB) – Summary, UPF Estimated Contract Price (CP) – Summary, and NNSA Contigency for MPB Subproject Performance Baseline (PB) Cost Objective	Front matter, ii–ix; Body, 11-19; Appendix A, 20-27; Appendix B, 28-29; Appendix C, 30-33; Appendix D, 34-56; Appendix E, 57-75; Appendix F, 76; Appendix G, 77-79.	A20-21; A24

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ACRONYMS

AUW	Authorized Unpriced Work
BCP	Baseline Change Proposal
CAM	Control Account Manager
CBB	Contract Budget Base
CD	Critical Decision
CNS	Consolidated Nuclear Security, LLC
CO	Contracting Officer
COR	Contracting Officer Representative
CPIF	Cost Plus Incentive Fee
CRD	Contractor Requirements Document
CSB	Construction Support Building
DID	Data Item Description
DOE	U.S. Department of Energy
EAC	Estimate at Completion
EPC	Engineering, Procurement, Construction
EUM	Enriched Uranium Mission
FPD	Federal Project Director
GAO	General Accounting Office
HEUMF	Highly Enriched Uranium Materials Facility
IBR	Integrated Baseline Review
IMS	Integrated Master Schedule
IPMR	Integrated Program Management Report
KPO	Key Performance Objectives
KPP	Key Performance Parameters
MEB	Mechanical Electrical Building
M&O	Management and Operating
MPB	Main Process Building
MSF	Modified Square Footage
NNSA	National Nuclear Security Administration
PARS II	Project Assessment and Reporting System II
PB	Performance Baseline
PEP	Project Execution Plan
PRD	Program Requirements Document
PSB	Personnel Support Building
PSF	Process Support Facilities
SAB	Salvage & Accountability Building
SRD	Systems Requirement Document
TBD	To Be Determined
TPC	Total Project Cost
UPF	Uranium Processing Facility
UPM	Uranium Program Manager
UPO	UPF Project Office
WBS	Work Breakdown Structure
Y-12	Y-12 National Security Complex

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1 INTRODUCTION

The National Nuclear Security Administration (NNSA) is executing the Uranium Processing Facility (UPF) Project by means of seven (7) authorized Subprojects via a combination of Critical Decision (CD) approvals. The subprojects are as follows: 1) *Site Readiness* (SR), 2) *Site Infrastructure and Services* (SIS), 3) *Substation* (SS), 4) *Mechanical Electrical Building* (MEB), 5) *Process Support Facilities* (PSF), 6) *Salvage & Accountability Building* (SAB), and 7) *Main Process Building* (MPB).

The UPF primary facilities include the MPB, the SAB, the MEB, and various smaller support facilities. Each of these buildings are designed to applicable process function, security, and nuclear/chemical hazard requirements. The MPB will house casting, special oxide production, furnaces, repackaging, high-equity calcination, and non-destructive analysis. The SAB will house low equity calcination and leaching, chemical recovery, non-destructive analysis, maintenance, and decontamination areas. The MEB will house the utility support systems for both the MPB and the SAB. The SS will supply power to the UPF and Y-12 National Security Complex (Y-12). Supporting facilities will include the Construction Support Building (CSB), truck bay/loading docks, the PSF, the Personnel Support Building (PSB), the fire tank pump house, and a connector to the Highly Enriched Uranium Materials Facility (HEUMF).

The UPF Project will be considered complete at UPF CD-4 when the Project Execution Plans (PEPs) and associated Key Performance Parameters (KPPs) are met to provide the required Enriched Uranium (EU) processing capabilities and/or capacities. The KPP verification methodology is detailed in PL-PJ-801768-A030, *Key Performance Parameters Verification Plan*. All changes to the PL-PJ-801768-A030, shall be approved by the UPF Federal Project Director with concurrence from the Uranium Program Manager.

The PEPs and associated KPPs for each Subproject are listed as follows:

- Main Process Building Subproject, PL-PJ-801768-A006, Appendix A.
- Salvage & Accountability Building Subproject, PL-PJ-801768-A006, Appendix A.
- Process Support Facilities Subproject, UPO-PL-95-A010, Section 1.3.5
- Mechanical Electrical Building Subproject, UPO-PL-95-A014, Section 1.3.5

The PEPs and KPPs for each Subproject are under strict configuration management as outlined in the Baseline Change Control section of each respective PEP. The UPF scope shall be managed through the use of the Project's construction management baseline in order to ensure the scope, mission requirements, and schedules are met within the approved Contract Budget Base (CBB). The approved Subproject Scope and Level I/II Schedule Milestones must be achieved in order to not impact the UPF CD-4 date.

The UPF scope shall support the Enriched Uranium Mission (EUM), with timely, cost effective, high quality deliverables.

2 PURPOSE

The UPF Fee Structure, herein referenced as "Master Annex", a subset of the overarching Contract, Section J, Appendix B-2, "UPF Fee Plan," shall document the *Key Performance Objectives (KPOs)*, Appendix A, in which all Contractor performance will be evaluated.

The purpose of the Master Annex is to consolidate all remaining Contractor scope exclusive of Annex 5 Substation under one fee annex, establish a target price and incentive fee structure for MPB, SAB, PSF, and MEB Subprojects, and define how NNSA will determine the final amount of Contractor earned fee, thereby establishing a "contract price" for all UPF scope. The Master Annex, includes *Articles of Negotiated Agreement*, Appendix F, used to capture various aspects or commitments to reach final agreement.

3 APPROACH

The desired performance of the Contractor is to deliver high quality deliverables (technical requirements) and/or integration support, which will ultimately deliver a UPF fully capable of meeting all Department of Energy (DOE)/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

The approach for the Plan is to establish the fee structure that will appropriately motivate Contractor performance while reducing Government risk through the use of Performance Objectives and Cost Plus Incentive Fee (CPIF) arrangements. Therefore, an element of the fee structure is the Contractor's demonstrated performance in completing Contract deliverables that comply with DOE O 413.3B, including, but not limited to: Statement of Work, Program Requirements Document (PRD), Systems Requirements Document (SRD), and all other applicable DOE Orders, Standards, and Contractor Requirements Documents (CRD), as set forth in the Contract.

The desired goal is to properly incentivize the Contractor to deliver all UPF subproject scope on/or under budget and on/or ahead of schedule, by establishing a reasonable Target Price, including KPOs, that safeguard the UPF CD-2 Baseline and UPF CD-4 date.

4 ESTABLISHING ANNEX

The Master Annex represents all the remaining UPF Contractor scope through UPF CD-4, and shall be approved and incorporated into the Contract by the Contracting Officer (CO), Section J, Appendix B-2, UPF Fee Plan.

The Government will primarily incentivize the Contractor by means of employing cost and schedule incentives. The Government expects to influence the Contractor to aggressively manage resources as required in order to provide high-quality and timely completion of all authorized scope to deliver a UPF fully capable of meeting all Department of Energy (DOE)/NNSA mission performance, quality, safeguards and security, and environmental, safety, and health contractual requirements.

Eligibility and the final amount of the incentive fee earned shall be dependent on the Contractor clearly meeting or exceeding the KPOs.

5 ANNEX OVERSIGHT

The *Government Oversight Model and Special Reporting Requirements*, Appendix H, describes the approach NNSA will use for conducting surveillance and oversight of UPF Project, including Contract deliverables, requirements, and any required submittals, in order to ensure the Contractor delivers high quality products and services that meet the UPF project requirements. This approach includes the UPF Project Office Oversight Plan, UPO-PL-95-A005, and the UPF Quality Assurance Plan, UPO-PL-95-A004.

The CO and Contracting Officer's Representatives (CORs) will measure Contractor performance through an "open book" assessment of the Contractor's technical, cost, and schedule data. This approach includes input from functional areas, including, but not limited to: Business Management and FPD Support; Contract Management; Construction; Engineering; Environmental, Safety, and Health; Project Controls and Estimating; Procurement; Project Management; Quality Assurance; Operational Readiness; Safeguards and Security; Subcontract Management; and Technology Development.

The purpose of the oversight model is to communicate Government expectations to the Contractor in order to ensure Contract objectives, i.e., final outcomes, are achieved. The CO/COR may notify the Contractor anytime during the performance of the Contract to address Contractor performance issues requiring immediate attention. However, the COR can only act solely as a technical representative of the CO, and therefore is not authorized to perform any function that results in a perceived or real change in the scope, price, terms or conditions of the Contract.

6 ESTABLISHING BASELINES

The CO shall ensure that the final negotiated cost and fee structure is commensurate with the Critical Decision (CD) approval phase and performance risks, as it pertains to DOE guidelines, limitations, and factors for determining fees.

Pursuant to DOE O 413.3B, the Performance Baseline(s) (PBs) are established at CD-2, which marks the completion of preliminary design. The PBs represents NNSA's commitment to Congress for delivering the Project's defined Subproject scope by a particular date at a specific cost, with the exception of any separately approved subprojects and long lead procurements, as applicable.

In order for the CO to determine the proposed costs are fair and reasonable, the Contractor shall provide a cost/schedule baseline proposal in sufficient detail for the Government to perform the appropriate price/cost analysis. Pursuant to FAR 15.404-1(b), the Government may use various price analysis techniques to definitize the negotiated target cost and target fee structure in the Contract. For the purposes of this Annex, the negotiated cost, schedule milestones, and fee structure shall be validated during the Integrated Baseline Review (IBR), at the conclusion of negotiations.

7 CHANGE PROCEDURES

The Master Annex may be updated as necessary during Contract performance. These updates may include, but are not limited to, required changes caused by scope, change orders, project

phasing, and/or adjusting KPOs to meet performance objectives. Change procedures; include the Project Execution Plan Change Control Criteria, UPF Project Baseline Change Control Process, UPO-95-A010, and UPF Fee Plan Change Control Process, UPO-95-A028.

The Baseline Change Control Criteria are subject to the following Subproject PEP thresholds:

- Main Process Building Subproject - PL-PJ-801768-A006, Appendix D
- Salvage and Accountability Building Subproject - PL-PJ-801768-A006, Appendix D
- Process Support Facilities Subproject – UPO-PL-95-A010, Table 7-1
- Mechanical Electrical Building Subproject – UPO-PL-95-A014, Table 7-1

If, in the opinion of the Contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of the technical direction clause of the Contract. Part II - Section I, Sub-Section I-2, DEAR 952.242-70, *Technical Direction,* the Contractor must not proceed and must notify the CO in writing within five (5) working days after receipt of any such instruction or direction. Upon receiving the notification from the Contractor, the CO must advise the Contractor as defined in (e)(1) through (e)(3) of the technical direction clause of the Contract. Part II - Section I, Sub-Section I-2, DEAR 952.242-70, *Technical Direction*.

A failure of the Contractor and CO either to agree upon the contract action to be taken with respect to the technical direction shall be in accordance with the disputes clause of the Contract. Part II - Section I, Sub-Section I-1, FAR 52.233-1, *Disputes, Alternate I*.

All annex changes shall be codified by a Contract modification within Section J, Appendix B-2, UPF Fee Plan.

8 INTEGRATED BASELINE REVIEW

Post negotiations, an IBR is a critical element for the Government to ensure the Project's authorized and negotiated scope is correctly planned and resourced to match the negotiated values as shown in Appendix A.

The primary objectives of an IBR include:

- Validate the costs from the negotiation are incorporated in the MPB, SAB, PSF, and MEB Subproject Baselines, including the PSIR pools.
- Validate the schedule milestones from the negotiation are incorporated in the MPB, SAB, PSF, and MEB Subproject Baselines.
- Validate the reporting tools accurately reflect progress and earnings.
- Validate the Contractor's baseline change control procedures are in accordance with their System Description and are adequate to manage the project.
- Validate the Responsibility Assignment Matrix has all scope assigned to a Control Account Manager (CAM).

An IBR was performed in accordance with the NNSA-approved *Integrated Baseline Review (IBR) Plan*, as a Government-led joint assessment with the Contractor at the conclusion of negotiations. An IBR report was issued on March 8, 2019 (ASRP-CONT-3.1.2019-828911), with a Corrective Action Plan to resolve all Pre- and Post-Approval Findings. On April 2, 2019, the Government approved a Level II BCP that closed all the Pre-Approval Findings.

9 FEE REQUESTS/APPROVALS

All Contractor fee requests are subject to the overarching Contract, including Section J, Appendix B-2, "UPF Fee Plan," and shall include sufficient detail and documented evidence for the CO to make a timely interim or final fee determinations, pursuant to the *Work Breakdown Structure (WBS),* Appendix E *and Schedule Milestone Closure Evidence*, Appendix C. All Contractor fee requests shall be submitted pursuant to the *Schedule of Values – Fee Liquidation Schedule,* Appendix B.

The following CO approval commitments assume the Contractor provided sufficient detail and documented evidence with the fee request:

- Provisional Fee Request Approvals – 30 calendar days
- Earned Fee Request Approvals – 45 calendar days

The CO's evaluation of fee requests shall rely on the Contractor's ability to clearly demonstrate satisfactory progress and/or completion of discrete scopes of work. The amount of each fee payment will be directly and expressly linked to the Contractor's demonstrated and continued performance towards earning fee. Thus, each successive fee payment, if any, shall reflect the Contractor's cumulative performance to date.

The CO may consider other inputs, but are not limited to, routine and un-scheduled site visits, inspections, assessments, and peer reviews when evaluating provisional fee requests. The Contractor's failure to provide sufficient detail and documented evidence may result in delays in processing Fee Request Approvals. The CO will advise the Contractor if the fee request detail is considered insufficient prior to the periods outlined above.

The CO may make Interim Fee Determinations at any time during Contract performance prior to UPF CD-4. Thus, the Contractor's failure to meet or deliver any of the established KPOs may result in provisional fee adjustments, and/or a deferral or reduction of earned fee for that assigned objective or element.

In the event the CO determines the Contractor has overdrawn paid fee, the Contractor shall return that paid fee to the Government within 60 calendar days of notification:

- The Contactor's obligation to return the paid fee is independent of its intent to dispute, and/or its disputing the CO determination in accordance with the disputes clause of the Contract. Part II - Section I, Sub-Section I-1, FAR 52.233-1, *Disputes, Alternate I* (Dec 1991)(Jul 2002); and
- If the Contractor fails to return the paid fee within 60 calendar days of the CO notification, the Government, in addition to all other rights that accrue to the Government, may withhold/deduct the amount of the paid fee from amounts the Government would otherwise authorize the Contractor to draw down under a Letter of Credit, or any other Contractor owed obligation.

All provisional payment of fee is 100% at risk until earned. All negotiated fee associated with cost performance objectives shall be provisional until NNSA approval of UPF CD-4, subject to the CO Final Fee Determination and Contract modification.

NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report.

10 PROVISIONAL FEE LIQUIDATION MODEL

Provisional Fee Liquidation Model - includes work to go only	Provisional Fee Pool: $168,515,866 Liquidated Fee Pool: $134,812,693 (80%) Unliquidated Fee Pool: $33,703,173 (20%)

The basis for the interim fee liquidation model is the Contractor's March 02, 2018 CD-2/3 Submittal Schedule.

Steps taken to construct the model are as follows:

1. Budgeted Cost of Work Scheduled (BCWS) in dollars was extracted from this file by Summary Work Package (SWP) or Work Package (WP) as required to separate the discrete scope from the Level of Effort (LOE) scope.
2. The Substation Subproject and SWPs or WPs that were primarily LOE were excluded from the fee to be liquidated as they were deemed to not contribute value added to the facility. This reduced total BCWS in the file from $3.726B to $1.873B of cost that was applicable to fee liquidation.
3. This cost ($1.873B) was broken down by Subproject, and converted to a percentage of work completed by quarter using $1.873B as the denominator.
4. The Provisional Fee Pool was reduced by 20% to create an Unliquidated Fee Pool (holdback), and the balance makes up a Liquidated Fee Pool to be liquidated on a quarterly basis based on performance using % complete model.
5. The percentages calculated in Step 3 were applied to the Liquidated Fee Pool calculated in Step 4, creating a time-phased Fee Liquidation Schedule over the life of the project.

Each quarter's earnings will be compared to the Performance Measurement Baseline to calculate percent complete. This will be compared to the expected percent complete in the fee liquidation model to determine if, or to what extent, the original performance goals were achieved. Since both values in the comparison are expressed as a percent, the model will remain relevant regardless of baseline changes.

The model shall serve as a quarterly draw down expectation curve, but can be adjusted based on actual performance against the approved baseline. Thus the amount of provisional fee to be drawn or returned quarterly or annually by the Contractor is subject to CO interim determinations.

The following control accounts are deemed not relevant to the fee liquidation model, unless noted otherwise:

NOTE: The table reflects the Control Account Summary, which is intended to be an example for how the model will be calculated. Each provisional fee determination will include an evaluation of SWP or WP as required to separate the discrete from LOE scope.

Control Account	EPC	Total	Total Post CD-2/3	Relevant to Liquidation
P88Y3301 Substation				
.45.70.45 Substation Owner's Rep & Concept Design	C	$1,427,770	$227,075	
.45.70.40 Design Auth & Tech Monitoring	G	$1,710,719	$600,577	
P88Y3332 Main Process Bldg (MPB) (CD-2/3)				
.45.60.50.11 MPB Engineering Title III	E	$170,648,607	$170,648,607	
.45.60.50.51 MPB Professional Services	G	$349,029,383	$349,029,383	
.45.100 MPB-SAB-PSF SVTs	G	$1,871,360	$1,871,360	
P88Y3297 Main Process Building (MPBLL) (Active)				
.45.60.80.10 Site Prep Excavation	C	$7,807,389	$0	
.45.60.80.20 Site Prep Select Fill	C	$18,462,570	$133,198	
.45.60.80.30 Site Prep Permanent Plant Subcontracts	C	$27,568,193	$0	
.45.60.80.40 Site Prep Support & Distributable	G	$27,898,826	$928,422	
.45.60.40.20 MPB LLP Plant Equipment Procurement	P	$148,826,166	$145,105,986	$148,826,166
.45.60.50.20 MPB Procurement Bulks	P	$28,307,718	$16,614,096	$28,307,718
.45.60.50.90 MPB LLP Engineering TIII	E	$1,228,425	$0	
.45.60.50.95 MPB LLP Non-Manual Services/Support	G	$4,684,875	$582,021	
.45.60.80.50 Site Prep LOE	G	$22,429,633	$2,340,132	
P88Y3333 Process Support Facility (PSF) (CD-2/3)				
.45.100 MPB-SAB-PSF SVTs	G	$1,378,340	$1,378,340	
.45.80.50.11 PSF Engineering Title III	E	$10,560,874	$10,560,874	
.45.80.50.51 PSF Professional Services	G	$23,451,846	$23,451,846	
P88Y3331 Salvage & Account. Bldg (SAB) (CD-2/3)				
PM Project Management Milestones	G	$0	$0	
.45.50.50.51 SAB Professional Services	G	$138,912,344	$138,912,344	
.45.50.50.11 SAB Engineering Title III	E	$69,416,130	$69,416,130	
.45.100 MPB-SAB-PSF SVTs	G	$3,450,190	$3,450,190	
P88Y3296 Salvage & Accountability Building (SABLL)				
.45.50.40.20 SAB/PSB Plant Equipment Procurement	P	$23,570,421	$22,034,296	$23,570,421
.45.50.50.20 SAB/PSB Procurement Bulks	P	$20,281,685	$5,778,056	$20,281,685
.45.50.50.90 SAB LLP Engineering TIII	E	$941,624	$0	
.45.50.50.95 SAB LLP Non-Manual Services/Support	G	$4,231,124	$491,124	
P88Y3191 Site Readiness (Archive) (Do not use)		$26,939,929	$2,155,252	
P88Y3280 CNS Project Engineering Design (PED) (Active)		$960,610,612	$71,519,693	
P88Y3281 CNS Site Readiness (Archive) (Do not use)		$15,554,467	$3,082,824	
P88Y3289 Site Infrastructure & Services (SIS) (Active)		$26,414,551	$2,159,468	
P88Y2746 PED (Archive) (Do not use)		$10,798,331	$67,352	

11 DEFERRED FEE POOL

All Contractor fee requests are subject to deferred fee withholdings pursuant to the *Schedule of Values – Fee Liquidation Schedule,* Appendix B.

In the event Schedule fee is not 100% earned due to the Contractor completing scope after the Completion Date, the schedule fee for that milestone will be reduced until the value of that milestone is exhausted. Any reduced milestone value will be set-aside in a Deferred Fee Pool, subject to the Articles of Negotiated Agreement, Appendix F, Deferred Fee Pool.

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APPENDIX A: KEY PERFORMANCE OBJECTIVES

1 PRIME OBJECTIVE

UPF Baselined Total Project Cost – Summary
- includes NNSA Contingency, NNSA Directs, and Legacy Costs

Subproject	TPC ($M)	CD-4
Main Process Building Subproject (MPB)	$4,731.8M	12/31/2025
Salvage & Accountability Building Subproject (SAB)	$1,180M	12/31/2025
Process Support Facilities Subproject (PSF)	$140M	12/31/2025
Mechanical Electrical Building Subproject (MEB)	$284M	01/17/2022
Substation Subproject (SS)	$60M	12/19/2019 (A)
Site Infrastructure and Services Subproject (SIS)	$60.5M	02/28/2018 (A)
Site Readiness Subproject (SR)	$43.7M	02/27/2015 (A)
Total Project Cost	**$6,500M**	

UPF Performance Baseline (PB) - Summary
- includes work to go only

Subproject	Performance Measurement Baseline (PMB)	Contract Budget Base (CBB)	Estimated Contract Price (CP)	Performance Baseline (PB/TPC)
MPB	$1,863,023,177	$2,148,613,301	$2,256,043,966	$2,608,354,704
SAB	$787,340,919	$881,352,771	$925,420,410	$1,180,000,000
PSF	$102,524,141	$110,961,381	$116,509,450	$140,000,000
MEB	$208,122,320	$229,389,865	$240,859,358	$284,000,000
Totals	**$2,961,010,557**	**$3,370,317,318**	**$3,538,833,184**	**$4,212,354,704**

Failure to achieve the Prime Objective (UPF TPC/CD-4) constitutes a 100% forfeiture of unearned available fee for circumstances directly attributable to Contractor performance, except for excusable delays (Section I, I-1, FAR 52.249-14 *Excusable Delays*) or availability of funds (Section I, I-1, FAR 52.232-18 *Availability of Funds*). All impacts are subject to a Final Fee Determination and Contract modification.

2 CONTRACT OBJECTIVE

UPF Estimated Contract Price (CP) - Summary
- includes unrealized fee subject to CO Final Fee Determination and Contract modification.

Item	Subproject	Cost (Estimated)	Fee (Estimated)	Contract Price (Estimated)
CLIN 0002		**$4,421,467,972**	**$220,676,707**	**$4,642,144,679**
0002A	MPB	$3,156,684,835	$157,834,241	$3,314,519,076
0002B	SAB	$881,352,771	$44,067,639	$925,420,410
0002C	PSF	$110,961,381	$5,548,069	$116,509,450
0002D	MEB	$229,389,865	$11,469,493	$240,859,358
0002E	SS (Fixed Fee)	$5,374,177	$268,711	$5,642,888
0002F	SIS	$25,232,933	$1,052,034	$26,284,967
0002G	SR (Fixed Fee)	$12,472,010	$436,520	$12,908,530

The UPF CLIN 0002 Contract scope is inclusive of all project management elements associated with the design, procurement, construction, start-up, and turnover to operations of the facilities and processes. The UPF primary facilities include the MPB, the SAB, the MEB, and various smaller support facilities. Each of these buildings are designed to applicable process function, security, and nuclear/chemical hazard requirements.

- The MPB will house casting, special oxide production, furnaces, repackaging, high equity calcination, and non-destructive analysis.
- The SAB will house low equity calcination and leaching, chemical recovery, maintenance, non-destructive analysis, and decontamination areas.
- The MEB will house the utility support systems for both the MPB and the SAB.
- The SS will supply power to the UPF and Y-12.
- Supporting facilities will include the CSB, truck bay/loading docks, PSF, PSB, fire tank pump house, and a connector to HEUMF.

The UPF Project will be considered complete at UPF CD-4 when the Project Execution Plans (PEPs) and associated Key Performance Parameters (KPPs) are met to provide the required EU processing capabilities and capacities.

The final Contract Price for CLIN 0002, a roll-up of SUB-CLIN estimated values, shall be incorporated by modification into the Contract by the CO after the NNSA approval of UPF CD-4 and acceptance of UPF closeout report, subject to a CO Final Fee Determination.

3 COST OBJECTIVE

Target Price - Summary - includes work to go only	
Target Price (P_T),	$3,538,833,184.00
Available Fee (F_A), includes unrealized cost and schedule fee	$168,515,866.00
NOTE: The Target Price includes all MPB, SAB, PSF and MEB Subproject scope. NNSA will make a Final Fee Determination after NNSA approval of UPF CD-4 and acceptance of UPF closeout report. The Key Performance Objectives and Key Performance Parameters apply to the project requirements being delivered and/or performed under this scope. All Fee associated to the Cost Objective is provisional to the end of the Project (UPF CD-4), subject to the CO Final Fee Determination and Contract modification.	
Target Cost (C_T)	$3,370,317,318.00
Target Fee (F_T)	$84,257,933.00
Maximum Fee (F_{MAX})	$160,000,000.00
Level 1 Under Target Cost (C_{UT1})	$3,240,317,318.00
Level 1 Under Target Share Ratio (S_{GU1}/S_{CU1})	88/12
Level 2 Under Target Cost (C_{UT2})	$3,039,843,761.00
Level 2 Under Target Share Ratio (S_{GU2}/S_{CU2})	70/30
Minimum Fee (F_{MIN})	$0
Level 1 Over Target Cost (C_{OT1})	$3,533,199,150.00
Level 1 Over Target Share Ratio (S_{GO1}/S_{CO1})	77/23
Level 2 Over Target Cost (C_{OT2})	$3,617,457,084.00
Level 2 Over Target Share Ratio (S_{GO2}/S_{CO2})	44.46/55.54
Share Ratios: Government Under/Over Target Shares, expressed as the Government percentage share of cost risk over the Contractor percentage share of cost risk. Under Target Share = S_{GU}/S_{CU} // Government Share (%)/Contractor Share (%). Over Target Share = S_{GO}/S_{CO} // Government Share (%)/Contractor Share (%).	

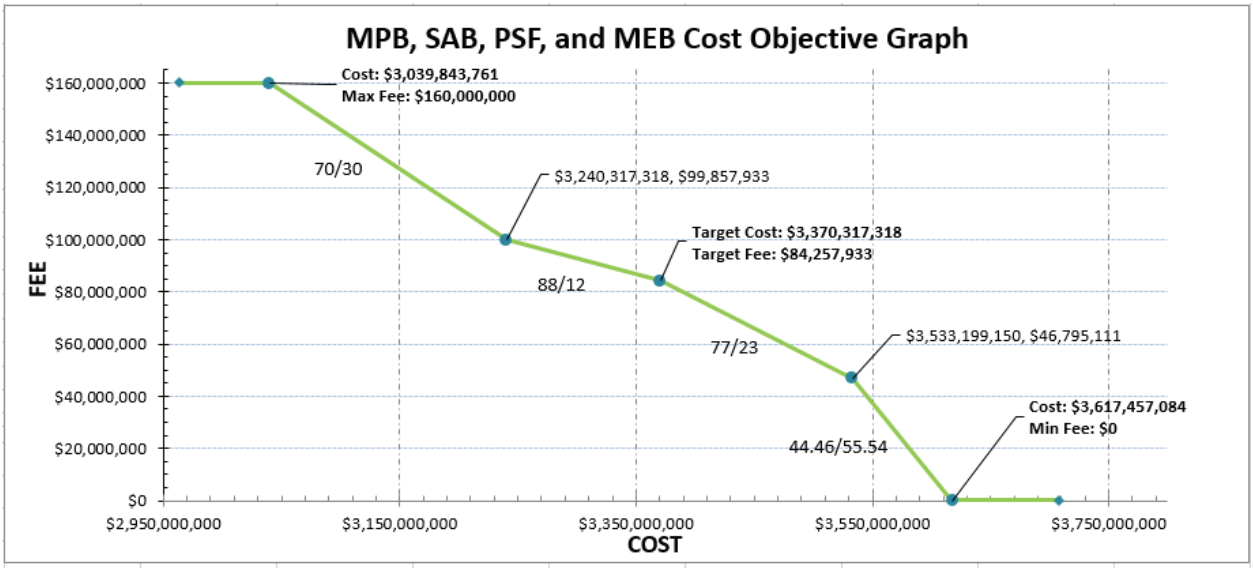


Chart Table Data- Do Not Delete or Edit

	Max fee	L1 - Under	Target	L1 + Over	Min fee
Cost Data Points	$3,039,843,761	$3,240,317,318	$3,370,317,318	$3,533,199,150	$3,617,457,084
Fee Data Points	$160,000,000	$99,857,933	$84,257,933	$46,795,111	$0
Total Cost	**$3,039,843,761**	**$3,240,317,318**	**$3,370,317,318.00**	**$3,533,199,150**	**$3,617,457,084**
Cost Fee	$160,000,000	$99,857,933	$84,257,933.00	$46,795,111	$0
% Fee	5.26%	3.08%	2.50%	1.32%	0.000%
Sched Fee Milestones	$84,257,933	$84,257,933	$84,257,933.00	$84,257,933	$84,257,933
% Total Fee	8.04%	5.68%	5.00%	3.71%	2.33%
Total Fee	**$244,257,933**	**$184,115,866**	**168,515,866.00**	**$131,053,044**	**$84,257,933**
Total Price	**$3,284,101,694**	**$3,424,433,184**	**3,538,833,184.00**	**$3,664,252,194**	**$3,701,715,017**

Figure 1: Master Cost Objective Graph

Cost Incentive – Terms

- used in Government share line model

P_T = Target Price // Estimated Target Price ($) if all available fee earned.
F_A = Available Fee // Combined unrealized Target Fee and Schedule Fee ($).
C_T = Target Cost // Negotiated Target Cost ($).
F_T = Target Fee // Negotiated Target Fee ($).
F_S = Schedule Fee // Negotiated Schedule Fee ($).
C_{UT} = Under Target Cost // Actual Costs ($) when Maximum Fee realized.
F_{MAX} = Maximum Fee // *Maximum Fee ($) realized for Under Target Cost.*
C_{OT} = Over Target Cost // Actual Costs ($) when Minimum Fee realized.
F_{MIN} = Minimum Fee // *Minimum Fee ($) realized for Over Target Cost.*
C_{TAC} = Total Allowable Cost // Actual Cost ($) the Contractor can claim.
F_{TA} = Target Fee Adjustment // Calculated Fee Adjustment ($) for Under/Over.
F_{ATF} = Adjusted Target Fee // Calculated Fee Adjustment ($) applied to Target Fee.
F_{AFF} = Adjusted Final Fee * // Calculated Fee Adjustment ($) for Schedule.
P_C = Contract Price // Calculated Contract Price ($) after Final Fee applied.

The following tables reflect the negotiated agreement for establishing the contract target price, and bounding limits of the approved TPCs, including the Government's expectation for cost values below the PMB/CBB/PSIR. The final values below the PMB/CBB/PSIR are subject to NNSA approval of a Level II Baseline.

MPB Subproject Performance Baseline (PB) Cost Objective - includes work to go only	
Direct Cost	$1,189,148,676
Indirect Cost	$673,874,501
Performance Measurement Baseline (PMB) Subtotal	**$1,863,023,177**
Management Reserve	$285,590,124
Contract Budget Base (CBB) Subtotal	**$2,148,613,301**
Available Fee	$107,430,665
Estimated Contract Price (CP) Subtotal	**$2,256,043,966**
NNSA Contingency	$352,310,738
Performance Baseline (TPC)	**$2,608,354,704**

SAB Subproject Performance Baseline (PB) Cost Objective	
Direct Cost	$544,765,315
Indirect Cost	$242,575,604
Performance Measurement Baseline (PMB) Subtotal	**$787,340,919**
Management Reserve	$94,011,852
Contract Budget Base Subtotal	**$881,352,771**
Available Fee	$44,067,639
Estimated Contract Price Subtotal	**$925,420,410**
NNSA Contingency	$254,579,590
Performance Baseline (TPC)	**$1,180,000,000**

PSF Subproject Performance Baseline (PB) Cost Objective	
Direct Cost	$73,555,844
Indirect Cost	$28,968,297
Performance Measurement Baseline (PMB) Subtotal	**$102,524,141**
Management Reserve	$8,437,240
Contract Budget Base Subtotal	**$110,961,381**
Available Fee	$5,548,069
Estimated Contract Price Subtotal	**$116,509,450**
NNSA Contingency	$23,490,550
Performance Baseline (TPC)	**$140,000,000**

MEB Subproject Performance Baseline (PB) Cost Objective	
Direct Cost	$167,692,902
Indirect Cost	$40,429,418
Performance Measurement Baseline (PMB) Subtotal	**$208,122,320**
Management Reserve	$21,267,545
Contract Budget Base (CBB) Subtotal	**$229,389,865**
Available Fee	$11,469,493
Estimated Contract Price Subtotal	**$240,859,358**
NNSA Direct	$4,982,385
NNSA Contingency	$38,158,257
Performance Baseline (TPC)	**$284,000,000**

Project Specific Indirect Rates

- baseline for establishing performance variances and allocations across subprojects

Subprojects	C1 Pool	C2 Pool	MSF%	Total
MPB	$368,493,143	$305,381,358	74.08%	$673,874,501
SAB	$147,045,671	$95,529,933	23.17%	$242,575,604
PSF	$27,081,635	$1,886,662	0.46%	$28,968,297
MEB	$30,996,483	$9,432,935	2.29%	$40,429,418
Total	**$573,616,932**	**$412,230,888**	**100%**	**$985,847,820**

4 SCHEDULE OBJECTIVE

Schedule Fee- Summary - includes work to go only	
Schedule Fee (F_{SM}) Milestones	$84,257,933.00

Critical Decision (CD) - Summary - **Assumes all Contractor's Schedule Reserve and Government's Schedule Contingency Used**	
MEB CD-4 Subproject Complete	January 17, 2022
UPF CD-4 (MPB, SAB, and PSF Subprojects Complete)	December 31, 2025

Schedule Milestones Summary		
1	MEB in the Dry (Phase I Complete)	May 23, 2019
2	Base Topping Slabs Complete MPB/SAB	June 4, 2019
3	MPB Walls to 27'	August 28, 2019
4	MPB Elevated Slabs (East and West)	November 7, 2019
5	Provide 1,100 tons of Cooling	May 18, 2020
6	MEB Construction Complete	June 15, 2020
7	SAB in the Dry (Roof Decking Complete)	August 26, 2020
8	Provide 4,200 tons of Cooling	September 2, 2020
9	Main Casting Glovebox Line Delivery Acceptance on Site	December 30, 2020
10	Supply Power for 40MVA Load	January 26, 2021
11	MEB Scope Complete (CD-4 Achieved) * Assumes Contractor's Schedule Reserve Used	January 27, 2021
12	Fire Hazard Analysis (Rev 0) Issued	February 4, 2021
13	PSF in the Dry	February 24, 2021

14	MEXHI/MEXLO Furnace and Glovebox R6000 Delivery Acceptance on Site	March 11, 2021
15	MPB in the Dry	April 12, 2021
16	ETCF Conversion Furnace/Glovebox R7300 Delivery Acceptance on Site	May 24, 2021
17	Sintering Furnace/Glove Box R8000 Delivery Acceptance on Site	May 24, 2021
18	MW Furnace Casting Glove Box Delivery Acceptance on Site	June 23, 2021
19	Chemical Recovery Calcination Qualification Testing Complete	January 4, 2022
20	PSF Construction Complete	May 17, 2022
21	MPB Construction Complete	October 18, 2022
22	SAB Construction Complete	November 16, 2022
23	PIDAS Operational	December 19, 2022
24	UPF Integrated Testing	July 6, 2023
25	Final DSA/TSR Approved	December 6, 2023
26	HCON Construction Complete	February 6, 2024
27	MAA Operational	April 2, 2024
28	Contractor Declaration of Readiness to Proceed	August 20, 2024
29	Complete Closure of DOE ORR Pre-Start Findings	November 27, 2024
30	UPF Scope Complete (CD-4 Achieved) * Assumes Contractor's Schedule Reserve Used)	August 31, 2025

APPENDIX B: Schedule of Values – Fee Liquidation Schedule

Interim Provisional Fee Liquidation Schedule

Fiscal Year	*MPB*	*SAB*	*PSF*	*MEB*	*Annual Fee Liquidated*	*Cumulative Fee Liquidated*	*Cum % Fee Liquidated*	*Balance of Fee Remaining*
Prior to FY18PQ3	$1,211,482	$1,052,692	$0	$1,969,199	$4,233,373	$4,233,373	2.5%	$164,282,493
FY18PQ3	$863,872	$490,799	$11,508	$1,503,394	$2,869,573	$7,102,946	4.2%	$161,412,920
FY18Q4	$5,519,628	$3,492,342	$407,104	$1,059,818	$10,478,892	$17,581,838	10.4%	$150,934,028
FY18 YE	**$7,594,981**	**$5,035,833**	**$418,613**	**$4,532,411**	**$17,581,838**	**$17,581,838**	**10.4%**	**$150,934,028**
FY19Q1	$4,169,585	$1,977,125	$135,712	$662,044	$6,944,466	$24,526,304	14.6%	$143,989,562
FY19Q2	$4,346,051	$1,703,902	$140,586	$603,572	$6,794,111	$31,320,416	18.6%	$137,195,450
FY19Q3	$6,566,102	$3,866,325	$329,050	$438,712	$11,200,188	$42,520,604	25.2%	$125,995,262
FY19Q4	$5,747,714	$4,067,586	$177,521	$857,472	$10,850,293	$53,370,897	31.7%	$115,144,969
FY19 YE	**$20,829,452**	**$11,614,938**	**$782,869**	**$2,561,801**	**$35,789,059**	**$53,370,897**	**31.7%**	**$115,144,969**
FY20Q1	$5,841,476	$4,074,135	$207,074	$797,882	$10,920,567	$64,291,464	38.2%	$104,224,402
FY20Q2	$6,962,791	$2,618,334	$140,604	$661,873	$10,383,602	$74,675,066	44.3%	$93,840,800
FY20Q3	$7,264,024	$1,498,168	$96,263	$270,799	$9,129,254	$83,804,320	49.7%	$84,711,546
FY20Q4	$6,961,660	$997,341	$264,672	$238,197	$8,461,870	$92,266,190	54.8%	$76,249,676
FY20 YE	**$27,029,951**	**$9,187,979**	**$708,612**	**$1,968,752**	**$38,895,293**	**$92,266,190**	**54.8%**	**$76,249,676**
FY21Q1	$3,755,940	$525,380	$351,644	$106,656	$4,739,621	$97,005,812	57.6%	$71,510,054
FY21Q2	$2,905,339	$613,984	$407,629	$5,975	$3,932,927	$100,938,739	59.9%	$67,577,127
FY21Q3	$2,686,389	$969,362	$323,116	$0	$3,978,867	$104,917,606	62.3%	$63,598,260
FY21Q4	$2,955,987	$1,892,185	$302,974	$0	$5,151,146	$110,068,752	65.3%	$58,447,114
FY21 YE	**$12,303,655**	**$4,000,912**	**$1,385,364**	**$112,631**	**$17,802,561**	**$110,068,752**	**65.3%**	**$58,447,114**
FY22Q1	$2,025,459	$1,140,689	$263,861	$0	$3,430,009	$113,498,761	67.4%	$55,017,105
FY22Q2	$2,640,492	$1,210,238	$178,710	$0	$4,029,440	$117,528,202	69.7%	$50,987,664
FY22Q3	$2,118,218	$432,700	$92,406	$0	$2,643,324	$120,171,526	71.3%	$48,344,340
FY22Q4	$1,402,129	$457,443	$185,013	$0	$2,044,585	$122,216,111	72.5%	$46,299,755
FY22 YE	**$8,186,298**	**$3,241,070**	**$719,991**	**$0**	**$12,147,359**	**$122,216,111**	**72.5%**	**$46,299,755**
FY23Q1	$927,161	$443,084	$58,619	$0	$1,428,864	$123,644,975	73.4%	$44,870,891
FY23Q2	$912,514	$521,537	$139,708	$0	$1,573,759	$125,218,734	74.3%	$43,297,132
FY23Q3	$1,821,642	$818,380	$210,693	$0	$2,850,715	$128,069,449	76.0%	$40,446,417
FY23Q4	$1,159,456	$224,943	$13,987	$0	$1,398,386	$129,467,835	76.8%	$39,048,031
FY23 YE	**$4,820,774**	**$2,007,944**	**$423,007**	**$0**	**$7,251,724**	**$129,467,835**	**76.8%**	**$39,048,031**
FY24Q1	$1,791,270	$163,334	$0	$0	$1,954,604	$131,422,439	78.0%	$37,093,427
FY24Q2	$1,170,568	$2,103	$0	$0	$1,172,671	$132,595,109	78.7%	$35,920,757
FY24Q3	$1,150,725	$0	$0	$0	$1,150,725	$133,745,834	79.4%	$34,770,032
FY24Q4	$1,066,859	$0	$0	$0	$1,066,859	$134,812,693	80.0%	$33,703,173
FY24 YE	**$5,179,422**	**$165,437**	**$0**	**$0**	**$5,344,858**	**$134,812,693**	**80.0%**	**$33,703,173**
Subproject Total	**$85,944,532**	**$35,254,112**	**$4,438,455**	**$9,175,594**	**$134,812,693**		***Unliquidated Balance:***	$33,703,173
%	*63.8%*	*26.2%*	*3.3%*	*6.8%*				

Earned Fee Liquidation Schedule

#	SCHEDULE MILESTONES	EARNED VALUE FEE	COMPLETION DATE	DEFERRAL DATE	DEFERRAL REDUCTION/ CALENDAR DAY	CY	$ BY CY	% BY CY	CUM % BY CY
1	MEB in the Dry (Phase I Complete)	$926,806	5/23/2019	8/14/2019	$11,166				
2	Base/Topping Slabs Complete MPB/SAB	$3,500,000	6/4/2019	8/14/2019	$49,296				
3	MPB Walls to 27'	$3,500,000	8/28/2019	10/29/2019	$56,452				
4	MPB elevated Slabs (East & West)	$3,500,000	11/7/2019	12/2/2019	$140,000	2019	**$11,426,806**	13.56%	13.56%
5	MEB Provide 1,100 tons of cooling	$400,000	5/18/2020	8/3/2020	$5,195				
6	MEB Construction Complete	$1,750,000	6/15/2020	10/27/2020	$13,060				
7	SAB in the Dry (Roof Decking Complete)	$3,410,000	8/26/2020	10/8/2020	$79,302				
8	MEB Provide 4,200 tons of Cooling	$600,000	9/2/2020	9/2/2020	$600,000				
9	Main Casting Glovebox Line Delivery Acceptance on Site	$4,210,000	12/30/2020	12/30/2020	$4,210,000	2020	**$10,370,000**	12.31%	25.87%
10	MEB Supply Power for 40MVA Load	$1,100,000	1/26/2021	1/26/2021	$1,100,000				
11	MEB Scope Complete (CD-4 Achieved)	$1,500,000	1/27/2021	3/18/2021	$30,000				
12	Fire Hazard Analysis (Rev 0) Issued	$660,000	2/4/2021	4/9/2021	$10,313				
13	PSF in the Dry	$1,000,000	2/24/2021	1/5/2022	$3,175				
14	MEXHI/MEXLO Furnace and Glovebox R6000 Delivery Acceptance on Site	$1,170,000	3/11/2021	6/23/2021	$11,250				
15	MPB in the Dry	$4,500,000	4/12/2021	7/6/2021	$52,941				
16	ETCF Conversion Furnace and Glovebox R7300 Delivery Acceptance on Site	$1,170,000	5/24/2021	6/23/2021	$39,000				
17	Sintering Furnace and Glove Box R8000 Delivery Acceptance on Site	$1,000,000	5/24/2021	6/23/2021	$33,333				
18	MW Furnace Casting Glove Box Delivery Acceptance on site	$2,500,000	6/23/2021	8/11/2021	$51,020	2021	**$14,600,000**	17.33%	43.20%
19	Chemical Recovery Calcination Qualification Testing Complete	$1,170,000	1/4/2022	6/27/2022	$6,724				
20	PSF Construction Complete	$1,000,000	5/17/2022	11/29/2022	$5,102				
21	MPB Construction Complete	$4,000,000	10/18/2022	12/13/2022	$71,429				
22	SAB Construction Complete	$3,500,000	11/16/2022	11/29/2022	$269,231				
23	PIDAS Operational	$2,000,000	12/19/2022	12/30/2022	$181,818	2022	**$11,670,000**	13.85%	57.05%
24	UPF Integrated Testing	$9,000,000	7/6/2023	9/19/2023	$120,000				
25	Final DSA/TSR Approved	$4,500,000	12/6/2023	1/16/2024	$109,756	2023	**$13,500,000**	16.02%	73.07%
26	HCON Construction Complete	$1,000,000	2/6/2024	2/14/2024	$125,000				
27	MAA Operational	$2,000,000	4/2/2024	4/5/2024	$666,667				
28	Contractor Declaration of Readiness to Proceed	$12,500,000	8/20/2024	8/20/2024	$12,500,000				
29	Complete Closure of DOE ORR Pre-Start Findings	$5,000,000	11/27/2024	11/27/2024	$5,000,000	2024	**$20,500,000**	24.33%	97.40%
30	UPF Scope Complete (CD-4 Achieved)	$2,191,127	8/31/2025	8/31/2025	$2,191,127	2025	**$2,191,127**	2.60%	100.00%
	Total Earned Value Fee	**$84,257,933**					**$84,257,933**		

APPENDIX C: Schedule Milestone Closure Evidence

The following standard closure evidence definitions apply to the schedule milestones:

1. For all fee requests - Evidence shall be provided documenting installation, completion, inspection, acceptance, and turnover of work scope, including any completed work packages, in accordance with the final design and applicable laws, regulations, codes, standards, and M&O contractor procedures, and specifications as well as contract terms/conditions. Additional requirements include:

    a. The Contractor shall schedule a briefing with the UPF Subproject FPD and Contracting Officer prior to development of a fee request package. Formal documentation of the briefing shall be produced by the Contractor including UPF Subproject FPD and Contracting Officer comments on said document.

    b. Transmittal letter that provides clear directions and permissions for accessing and reviewing objective completion evidence. Fee requests that do not contain sufficient navigation instructions shall not be evaluated.

2. For procurement related fee requests (e.g. receipt of systems, components, and material), the Contractor shall verify and document that all supplier engineering and quality verification document submittal requirements, as documented in the Purchase Order (PO) and associated revisions, are completed. The Contractor shall verify and document that material receipt, including visual inspection, material acceptance, receipt process, and detailed inspection requirements have been completed per the Material Receipt Instruction (MRI).

3. The Contractor shall schedule, a minimum of 5 days in advance, a walk down of completed work scope with the UPF Subproject FPD and Contracting Officer prior to development of a fee request package. For construction related fee requests, closed work pakages are preferred. However, partially closed work packages can be provided as evidence if the scope not complete in the work package does not apply to the fee milestone. The Contractor shall identify construction scope by applicable Construction Work Packages (per Y17-95-64-800), associated inspection records and documented status of each (open, closed and pending). For construction work packages that cannot be closed because they contain scope not related to the fee milestone, the Contractor will provide a summary of the uncompleted scope and the basis for the documentation demonstrating successful completion of the milestone scope. Documented evidence of closed items and justified open items (CWPs and Inspection Records) will be provided as evidence for construction-related fee requests.

4. For acceptance or turnover (internal and external to the project) milestones – Inspections and turnover shall be performed and documented in accordance with Y15-95-912, UPF Completion and Turnover. This includes turnovers from construction to startup and startup to facility/system owner. Turnover from construction to startup shall be documented via approved Testing Turnover Packages. Turnover from startup to the facility/system owner shall include technical documentation (e.g. material certificates of conformance, receipt inspection, test reports, as built drawings, engineering determinations/verifications) per the Transition Documentation Checklist associated with the turnover.

Item #	*Milestones*	*Definition of Complete*
1	MEB in the Dry (Phase I Complete)	Installation, completion, inspection, and acceptance of Phase 1 work scope per the design. Inspections and area turnover shall be performed and documented in accordance with Y17-95-69-876, UPF Subcontract Management. Shell subcontractor turnover of the shell per design and subcontract terms/conditions shall be to the UPF Project and will include all relevant supporting documentation (e.g. material certificates of conformance, receipt inspection, test reports, as built drawings). All project documentation shall be captured in the UPF Document Management Center and maintained as a project record. All requirements of UPF standard closure evidence will apply.
2	Base/Topping Slabs Complete MPB/SAB	MPB/SAB Building base slab and topping slab concrete complete: The MPB/SAB base slab and topping slab are installed, inspection records are documented and in the project records database, and NCRs required to be addressed prior to installation of structural steel are closed and documented. This package excludes installation of final coatings (sealers, epoxies, fire proofing, etc.). All requirements of UPF standard closure evidence will apply.
3	MPB Walls to 27'	MPB Building first floor wall (0' to 27' elevation) concrete complete: The MPB first floor (0' to 27' elevation) walls are installed, inspection records are documented and in the project records database, and NCRs required to be addressed prior to installation of the elevated concrete slabs (27' elevation) are closed and documented. All requirements of UPF standard closure evidence will apply.
4	MPB Elevated Slabs (East & West)	All MPB 2nd level floor/topping slabs are installed, including concrete formwork, reinforcing steel (rebar) placement, embed placement (including embedded commodities), concrete placement and finishing for the east and west 2nd level floor. NCRs required to be addressed prior to beginning exterior walls above the first elevated slab are closed and documented. This package excludes installation of coatings (sealers, epoxies, fire proofing, etc.). All requirements of UPF standard closure evidence will apply.
5	MEB Provide 1,100 tons of cooling	MEB Air Handling Units designed, purchased, and installed to provide approximately 1,100 tons of cooling to cool the MEB and the SAB. NCRs required to be addressed prior to system acceptance by startup are closed and documented. Formal acceptance of completed MEB Subproject Air Handling Units turnover packages from UPF Construction by UPF Startup supported by standard closure evidence.
6	MEB Construction Complete	Installation, completion, inspection, and acceptance of work scope per the design. Construction complete for the Mechanical Electrical Building includes execution of Sitework, Concrete, Structural, Architectural, HVAC Equipment, Electrical Bulks, Electrical Equipment, Fireproofing, Building Roofing/Siding, HVAC Ductwork Interior Finishes, Fire Protection, HVAC Ductwork and Lightning Protection. Engineered systems are installed and the Category 1 construction turnover systems [Construction T/O System] as listed in Construction Maintenance and Operations Plan for Mechanical/Electrical Equipment Building (MEB), PL-PM-801768-A056, have been turned over via turnover acceptance package. Project documentation will be captured in the UPF Document Management Center and maintained as a project record. Evidence will include standard closure evidence, closure of inspection records and completion of construction component testing.
7	SAB in the Dry (Roof Decking Complete)	This includes the SAB building structural steel (columns and floor steel) required to install the metal roof deck and installation of the metal roof deck exclusive of construction openings as defined in "Construction Openings and the MPB, MEB, and SAB" document RP-CM-801768-A001. The inspection records for the efforts described are documented and in the project records database, and NCRs required to be addressed to install the roof membrane are closed and documented. All requirements of UPF standard closure evidence will apply.
8	MEB Provide 4,200 tons of Cooling	The MEB Subproject cooling system cooling towers and chillers are designed, purchased, and installed to provide approximately 4,200 tons of cooling from the chiller units. NCRs required to be addressed prior to system acceptance by startup are closed and documented. Formal acceptance of completed MEB Subproject Air Handling Units turnover packages from UPF Construction by UPF Startup supported by standard closure evidence.
9	Main Casting Glovebox Line Delivery Acceptance on Site	Receipt and acceptance of the equipment by UPF from the fabricator. The receipt and acceptance process verifies the quantity and quality of the equipment and that the equipment meets the specifications of the procurement. There are no UOS&Ds with a rejected status and UOS&Ds with NCRs have Engineering dispositions or approved conditional/interim dispositions that allow field installation of the procured item. The completion of the receiving and acceptance process is documented by issuance of the Material Receiving Report. All requirements of UPF standard closure evidence will apply.
10	MEB Supply Power for 40MVA Load	Completed MEB Subproject Electrical Turnover Packages for the MEB Subproject Electrical System, which includes the 13.8 KVA electrical feeder and duct bank from the UPF substation and MEB systems required to supply a maximum electrical load of approximately 40 MVA, approved and accepted from UPF Construction by UPF Startup. supported by standard closure evidence.; NCRs required to be addressed prior to operations with permanent loads connected to the 40MVA system are closed and documented. All requirements of UPF standard closure evidence will apply.
11	MEB Scope Complete	MEB CD-4: The MEB Subproject CD-4, Project Complete shall occur once required systems and facilities are installed, tested, commissioned, and beneficial occupancy is obtained by the project with the UPF Startup Group in control. MEB Subproject-specific closeout requirements is detailed in the MEB subproject PEP. All requirements of UPF standard closure evidence will apply.
12	Fire Hazard Analysis (Rev 0) Issued	CNS completion and issuance of Revision 0 of the UPF Fire Hazards Analysis to InfoWorks. All requirements of UPF standard closure evidence will apply.

13	PSF in the Dry	PSF, is "In the Dry" with a complete roof system, windows, exterior walls and/or metal siding installed; NCRs required to be addressed prior to installation of process equipment in the upper level of PSF are closed and documented. This work package includes erection of structural steel, exterior concrete walls and/or metal siding, roof decking and membrane, windows (including weather stripping and flashing), roof drainage systems and downspouts so that the building is weatherproof. This package does not include engineering support to the vendor, testing off bulk commodities (e.g. pipe, cable tray, and conduit), installation of any valves, sensors, controls systems, equipment communication systems, dampers, etc. associated with pre-modularized commodities. All requirements of UPF standard closure evidence will apply.
14	MEXHI/MEXLO Furnace and Glovebox R6000 Delivery Acceptance on Site	Receipt and acceptance of the equipment by UPF from the fabricator. The receipt and acceptance process verifies the quantity and quality of the equipment and that the equipment meets the specifications of the procurement. There are no UOS&Ds with a rejected status and UOS&Ds with NCRs have Engineering dispositions or approved conditional/interim dispositions that allow field installation of the procured item. The completion of the receiving and acceptance process is documented by issuance of the Material Receiving Report. All requirements of UPF standard closure evidence will apply.
15	MPB In the Dry	MPB, is "In the Dry" with a complete roof system, and exterior walls installed. MPB building concrete complete: The MPB building concrete for base slab, walls, and elevated slabs is installed, inspection records are documented and in the project records database, and NCRs related to the slabs concerned are closed and documented. MPB building structural steel complete: The MPB building structural steel required to install elevated slabs is installed, inspection records are documented and in the project records database, and NCRs related to the structural steel concerned are closed and documented. MPB building roofing complete. The MPB building roofing is installed and accepted (with exception of planned construction openings, and planned openings for future utilities installation), inspection records are documented and in the project records database. This package does not include engineering support to the vendor, testing off bulk commodities (e.g. pipe, cable tray, and conduit), installation of any valves, sensors, controls systems, equipment communication systems, dampers, etc. associated with pre-modularized commodities. All requirements of UPF standard closure evidence will apply.
16	ETCF Conversion Furnace and Glovebox R7300 Delivery Acceptance on Site	Receipt and acceptance of the equipment by UPF from the fabricator. The receipt and acceptance process verifies the quantity and quality of the equipment and that the equipment meets the specifications of the procurement. There are no UOS&Ds with a rejected status and UOS&Ds with NCRs have Engineering dispositions or approved conditional/interim dispositions that allow field installation of the procured item. The completion of the receiving and acceptance process is documented by issuance of the Material Receiving Report. All requirements of UPF standard closure evidence will apply.
17	Sintering Furnace and Glove Box R8000 Delivery Acceptance on Site	Receipt and acceptance of the equipment by UPF from the fabricator. The receipt and acceptance process verifies the quantity and quality of the equipment and that the equipment meets the specifications of the procurement. There are no UOS&Ds with a rejected status and no UOS&Ds that have generated any NCRs required to be addressed prior to installation of the procured item. The completion of the receiving and acceptance process is documented by issuance of the Material Receiving Report. All requirements of UPF standard closure evidence will apply.
18	MW Furnace Casting Glove Box Delivery Acceptance On Site	Receipt and acceptance of the equipment by UPF from the fabricator. The receipt and acceptance process verifies the quantity and quality of the equipment and that the equipment meets the specifications of the procurement. There are no UOS&Ds with a rejected status and UOS&Ds with NCRs have Engineering dispositions or approved conditional/interim dispositions that allow field installation of the procured item. The completion of the receiving and acceptance process is documented by issuance of the Material Receiving Report. All requirements of UPF standard closure evidence will apply.
19	Chemical Recovery Calcination Qualification Testing Complete	Successful Factory Acceptance Test and acceptance of the fabricators FAT report, UPF receipt/inspection/acceptance of the calciner after shipment to Development Testing Facility prior to qualification testing, and successful qualification testing by UPF with depleted uranium. Completion of milestone documented by the qualification test report. All requirements of UPF standard closure evidence will apply.
20	PSF Construction Complete	Installation, completion, inspection, and acceptance of work scope per the design and subproject terms/conditions. Construction complete for the Process Support Facility includes execution of Sitework, Concrete, Structural, Architectural, HVAC Equipment, Electrical Bulks, Electrical Equipment, Fireproofing, Building Roofing/Siding, HVAC Ductwork Interior Finishes, Fire Protection, HVAC Ductwork and Lightning Protection. Evidence will include closure of inspection records and completion of construction component testing. Project documentation will be captured in the UPF Document Management Center and maintained as a project record. The following systems have a completed turnover acceptance package: Demineralized Water-PSF (Non-Criticality Safe), Low Voltage Power-PSF, Wastewater-PSF, Nitric Acid Feed-PSF, Argon, Primary Confinement System, Nitrogen, Helium, Facility Monitoring and Control System-PSF, Medium Voltage Electrical Power-PSF. All requirements of UPF standard closure evidence will apply.

21	MPB Construction Complete	Installation, completion, inspection, and acceptance of work scope per the design and subproject terms/conditions. Construction complete for the Main Process Building includes execution of Sitework, Concrete, Structural, Architectural, HVAC Equipment, Electrical Bulks, Electrical Equipment, Fireproofing, Building Roofing/Siding, HVAC Ductwork Interior Finishes, Fire Protection, HVAC Ductwork and Lightning Protection. Evidence will include closure of inspection records and completion of construction component testing. Project documentation will be captured in the UPF Document Management Center and maintained as a project record. The following systems have a completed turnover acceptance package: Process Offgas, Low Voltage Power-MPB, Medium Voltage Electrical Power-MPB, Receipt and Packaging, Primary Confinement System, Knockout #2, Knockout #1, Recovery Furnace, Special Material Production, Oxide Material Production, High Metal Oxidation, Vacuum Annealing, Pickling, Low Metal Oxidation, Stack Loading #1, Arc Melter, Casting Receiving & Packaging, Batch Makeup, Sampling, Break & Shear, Tool Preparation & Storage, Microwave Casting #1, Microwave Casting #2, Microwave Casting #4, Microwave Casting #3, Facility Monitoring and Control System-MPB, Safety Detection and Response System-MPB, Secondary Confinement System, Tertiary Confinement System. All requirements of UPF standard closure evidence will apply.
22	SAB Construction Complete	Installation, completion, inspection, and acceptance of work scope per the design and subproject terms/conditions. Construction for the Salvage and Accountability Building includes execution of Sitework, Concrete, Structural, Architectural, HVAC equipment, Electrical/Instrumentation/Piping Bulks, and Electrical/Mechanical/Process Equipment, Fireproofing, Building Roofing/Siding, Coatings, Interior Finishes, Fire Protection, Firewater Equipment, and HVAC Ductwork and Lightning Protection. Evidence will include installation inspection records and records identifying completion of construction component testing, which will be captured in the UPF Document Management Center and maintained as a project record. The following systems have a completed turnover acceptance package: Primary Confinement System; Tertiary Confinement System; Wastewater; Process Cooling water; Process Offgas; Decontamination; Filter and Separate; Containers, Handling, & Storage, Safety Detection and Response System-SAB; Nitric Acid Feed; Non-Contaminated Floor Cleaning; Process Steam and Condensate; Low Voltage Power-SA; Waste Preparation; Recovery Evaporation; Calcination; Beaker Leaching; Secondary Confinement System; Contaminated Floor Cleaning; Facility Monitoring and Control System-SAB; Caustic Filtration-SAB; Non-Destructive Analysis. All requirements of UPF standard closure evidence will apply.
23	PIDAS Operational	PIDAS System testing includes the setup, checkout, and operation of SSCs as an overall system demonstrating functional acceptance criteria on a system level basis in accordance with the construction specifications and installation drawing requirements. Approved System test results documenting that each system operates in accordance with the functional requirements of the applicable design documents and meets the requirements of the respective approved functional acceptance criteria provided by Engineering. Includes formal receipt of approval to operate UPF-constructed PIDAS sections by NNSA per DOE O 473.3A and DOE O 470.4B.
24	UPF Integrated Testing	Approved Integrated System test packages for all UPF Structures, Systems, & Components with associated KPPs documenting completion of integrated testing as defined by the KPP Verification Plan. All requirements of UPF standard closure evidence will apply.
25	Final DSA/TSR Approved	The DSA/TSR submittal shall be suitable for review by having the format and content prescribed by DOE-STD-3009-94. The DSA/TSR approval shall meet the DOE-STD-1189-2008 and shall be approved by the NNSA Safety Basis Approval Authority by issuance of an SER such that if their are any Conditions of Approval within the SER they do not impact the start of nuclear operations.
26	HCON Construction Complete	HCON connector complete, HEUMF fire door in service for HEUMF Operations, includes construction completion of HCON opening into HEUMF and integration of any HCON utilities with UPF utility systems. All requirements of UPF standard closure evidence will apply.
27	MAA Operational	Nuclear Materials Control & Accountability and Site Security Plan inclusive of UPF Material Access Area are approved. The following approvals have been received: Certified TEMPEST Technical Authority approval of TEMPEST plan, Authorizing Official approval of cyber plans,and Technical Surveillance Counter-Measure (TSCM) testing completed and accepted by NPO. All requirements of UPF standard closure evidence will apply.
28	Contractor Declaration of Readiness to Proceed	Formal UPF declaration of readiness to proceed with the NNSA Operational Readiness Review in accordance with DOE O 425.1D.
29	Complete Closure of DOE ORR Pre-Start Findings	Formal DOE acceptance of closure of pre-start findings from the UPF Operational Readiness Review in accordance with DOE O 425.1D.
30	UPF CD-4	Key Performance Parameters and project completion criteria specified in the UPF Project Execution Plan are met. The UPF CD-4 approval letter/memorandum is signed by the DOE Project Management Executive. To support these final objectives the CD-4 will be conducted following the guidance provided in DOE Order 413.3B and DOE Guide 413.3-16A, Project Transition/Closeout Guide, for each UPF subproject. UPF subprojects will be complete when testing is successfully completed, all systems are turned over to Operations, and all documentation is transferred to the Facility Records Document Management Center. The overall UPF Project will be complete when all subprojects have been successfully completed.

APPENDIX D: Special Reporting Requirements

Unless expressly dictated (format/frequency) by a DOE Order, or as outlined below, the Contractor's format for completing the Contract Data Requirements List (CDRL) and Data Item Descriptions (DIDs) incorporated into the Contract by reference is acceptable.

DID #	TITLE	INSTRUCTION
DID-CST-0002/T	CONSTRUCTION MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-CST-0003/T	CONSTRUCTION WORK PLAN	CONTRACTOR FORMAT
DID-CST-0004/T	CONSTRUCTION SAFETY PLAN	CONTRACTOR FORMAT
DID-ENG-0001/T	AS-BUILT CONFIGURATION LIST	CONTRACTOR FORMAT
DID-ENG-0002/T	AS-BUILT DRAWINGS	CONTRACTOR FORMAT
DID-ENG-0003/T	CODE OF RECORD DOCUMENT	CONTRACTOR FORMAT
DID-ENG-0009	DESIGN MASTER RECORD INDEX	CONTRACTOR FORMAT
DID-ENG-0021/T	ENGINEERING DRAWINGS	CONTRACTOR FORMAT
DID-ENG-0023/T	EQUIPMENT LIST	CONTRACTOR FORMAT
DID-ENG-0025/T	DESIGN CHANGE CONTROL PLAN	CONTRACTOR FORMAT
DID-ENG-0026	REQUEST FOR DEVIATION (OR REQUEST FOR VARIANCE)	CONTRACTOR FORMAT
OT-ENG-1027	DESIGN CRITERIA	CONTRACTOR FORMAT
OT-ENG-1028	ENGINEERING EXECUTION PLAN	CONTRACTOR FORMAT
OT-ENG-1029	MATERIAL & ENERGY BALANCE DESIGN ANALYSIS CALCULATIONS	CONTRACTOR FORMAT
OT-ENG-1030	PROCESS NARRATIVES	CONTRACTOR FORMAT
OT-ENG-1031	SCOPE OF FACILITIES	CONTRACTOR FORMAT
OT-ENG-1032	SYSTEM REQUIREMENT DOCUMENT	CONTRACTOR FORMAT
DID-EPC-0003*	FINAL NEPA DOCUMENTATION	CONTRACTOR FORMAT
DID-ITS-0002*	TECHNICAL REQUIREMENTS DOCUMENT	CONTRACTOR FORMAT
DID-ITS-0003*	CYBER SECURITY PLAN	CONTRACTOR FORMAT
DID-MGMT-81468/T	CONTRACT FUNDS STATUS REPORT	FORMAT PER FULL TEXT DID INCLUDED HEREIN
DID-OPS-0001	OPERATIONS AND MAINTENANCE PLAN	CONTRACTOR FORMAT
DID-OPS-0002*	STARTUP NOTIFICATION REPORT	CONTRACTOR FORMAT
DID-OPS-0003	STARTUP PLAN	CONTRACTOR FORMAT
DID-PM-0001/T	DOCUMENT OF TREND BOARD/CHANGE CONTROL BOARD MTGS	CONTRACTOR FORMAT
DID-PM-0002/T	CONFIGURATION MANAGEMENT DOCUMENT PICK LIST	CONTRACTOR FORMAT
DID-PM-0003*	CONFIGURATION MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0004/T	PROJECT COMPLETION VERIFICATION	CONTRACTOR FORMAT
DID-PM-0005	DOCUMENT CONTROL PLAN	CONTRACTOR FORMAT
DID-PM-0006/T	EARNED VALUE MANAGEMENT (EVM) PLAN	CONTRACTOR FORMAT
DID-PM-0009	SYSTEMS ENGINEERING MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0010	PROCUREMENT PLAN	CONTRACTOR FORMAT
DID-PM-0013/T	PROJECT MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0014/T	PROJECT PERFORMANCE BASELINE CONTROL PLAN	CONTRACTOR FORMAT
DID-PM-0015/T	RECORDS MANAGEMENT PLAN	CONTRACTOR FORMAT

DID-PM-0016/T	REQUIREMENTS MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0018/T	RISK MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0019/T	RISK REGISTER	CONTRACTOR FORMAT
DID-PM-0022/T	WORK BREAKDOWN STRUCTURE AND WBS DICTIONARY	CONTRACTOR FORMAT
DID-PM-0023/T	CRITICAL PATH SCHEDULE	CONTRACTOR FORMAT
DID-PM-0024*	FIXED PRICE CONTRACT MILESTONE AND SCHEDULE STATUS REPORT	CONTRACTOR FORMAT
DID-PM-0026/T	MONTHLY PROJECT REPORT	FORMAT PER FULL TEXT DID INCLUDED HEREIN
DID-PM-0027/T	RESOURCE-LOADED SCHEDULE	CONTRACTOR FORMAT
DID-PM-0028	STATEMENT OF WORK	CONTRACTOR FORMAT
DID-PM-0029/T	TOTAL PROJECT COST	CONTRACTOR FORMAT
DID-PM-0030/T*	EMERGENCY MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0031/T	QUALITY ASSURANCE PLAN	CONTRACTOR FORMAT
DID-PM-0034	COMMUNICATIONS MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0035/T	PROJECT FUNDING REQUIREMENTS PROFILE	CONTRACTOR FORMAT
DID-PM-0036/T	FEDERAL PROJECT DIRECTOR MONTHLY PROJECT REVIEW	FORMAT PER FULL TEXT DID INCLUDED HEREIN
DID-PM-0037/T	DATA MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PM-0039/T	MASTER DOCUMENT LIST	CONTRACTOR FORMAT
DID-PM-0041/T	PROJECT CLOSEOUT REPORT	CONTRACTOR FORMAT
DID-PM-0056	ROOT CAUSE ANALYSIS	CONTRACTOR FORMAT
DID-PM-0059	CORRECTIVE ACTION PLAN	CONTRACTOR FORMAT
DID-PM-0066	INTEGRATED BASELINE REVIEW REPORT	CONTRACTOR FORMAT
DID-PM-0071	NONCONFORMANCE REPORT	CONTRACTOR FORMAT
OT-PM-1031	CONTRACTOR ASSURANCE SYSTEM (CAS)	CONTRACTOR FORMAT
DID-PRG-0001	CHECKOUT, TESTING, AND OPERATIONS ACCEPTANCE	CONTRACTOR FORMAT
DID-PRG-0004/T	KEY PROJECT ASSUMPTIONS	CONTRACTOR FORMAT
DID-PRG-0005*	OPERATIONS AND MAINTENANCE CONFIGURATION MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-PRG-0006/T	PERFORMANCE BASELINE DEVELOPMENT PLAN	CONTRACTOR FORMAT
DID-PRG-0009/T	TRANSITION TO OPERATIONS PLAN	CONTRACTOR FORMAT
DID-PRG-0011*	PROGRAM REQUIREMENTS DOCUMENT	CONTRACTOR FORMAT
DID-PRG-0016*	PERFORMANCE WORK STATEMENT	CONTRACTOR FORMAT
DID-PRG-0019/T*	PROJECT DATA SHEET	CONTRACTOR FORMAT
DID-PRG-0022/T	INTEGRATED PROGRAM MANAGEMENT REPORT (IPMR)	FORMAT PER FULL TEXT DID INCLUDED HEREIN
DID-SAF-0003	OPERATIONAL READINESS REVIEW IMPLEMENTATION PLAN	CONTRACTOR FORMAT
DID-SAF-0004	FINAL HAZARDS ANALYSIS REPORT	CONTRACTOR FORMAT
DID-SAF-0005	HAZARDS ANALYSIS REPORT	CONTRACTOR FORMAT
DID-SAF-0010	TECHNICAL SAFETY REQUIREMENTS	CONTRACTOR FORMAT
DID-SAF-0011	DOCUMENTED SAFETY ANALYSIS	CONTRACTOR FORMAT
DID-SAF-0013/T	CONTRACTOR OPERATIONAL READINESS REVIEW PLAN OF ACTION	CONTRACTOR FORMAT
DID-SAF-0014/T*	INTEGRATED SAFETY MANAGEMENT PLAN	CONTRACTOR FORMAT
DID-SAF-0015*	SAFETY DESIGN CONTROL PLAN	CONTRACTOR FORMAT

DID-SAF-0016	FIRE HAZARDS ANALYSIS	CONTRACTOR FORMAT
DID-SAF-0017/T	OCCURRENCE REPORT	DOE O 232.2A Attachment 4
DID-SAF-0018/T	LESSONS LEARNED REPORT	CONTRACTOR FORMAT
DID-SAF-0019/T	OCCUPATIONAL SAFETY PLAN AND REPORTING	CONTRACTOR FORMAT
DID-SEC-0001/T	FINAL SECURITY VULNERABILITY ASSESSMENT	CONTRACTOR FORMAT
DID-SEC-0003/T	SECURITY PLAN	CONTRACTOR FORMAT
DID-SEC-0004/T*	SAFEGUARDS AND SECURITY REQUIREMENTS	CONTRACTOR FORMAT
OT-SEC-1006/T*	COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM	CONTRACTOR FORMAT

*Annotations noted in the Other Basis Records

DID-EPC-0003	Final NEPA Documentation	NEPA is a DOE programmatic requirement with UPO personnel as the point of contact. CNS will support as needed.
DID-ITS-0002	Technical Requirements Document	UPF Project IT is under the umbrella of the CNS CLIN 0001, IS&T organization, which is responsible for IT requirements management plans and cyber security plans. CNS will support as needed.
DID-ITS-0003	Cyber Security Plan	UPF Project IT is under the umbrella of the CNS CLIN 0001, IS&T organization, which is responsible for IT requirements management plans and cyber security plans. CNS will support as needed.
DID-OPS-0002	Startup Notification Report	The SNR is currently being produced by Y-12, CLIN 0001 and includes UPF.
DID-PM-0003	Configuration Management Plan	The CM plan is covered by the M&O CLIN 0001, CM Program (Y15-004PD) and its implementing procedures. The Y-12 CM program is owned by Y-12 Engineering. CNS will support as needed.
DID-PM-0024	Fixed Price Contract Milestone and Schedule Status Report	Fixed price arrangements are not contemplated for the to-go CD-2/3 work under negotiation. This DID would not be applicable until and unless a FFP arrangement is established.
DID-PM-0030/T	Emergency Management Plan	The UPF project operates under the security envelope that is the responsibility of the CNS CLIN 0001, M&O Safeguards, Security, and Emergency Services Organization. This Implementation Plan for the Comprehensive Emergency Management System is an M&O CLIN 0001, document.
DID-PRG-0005	Operations and Maintenance Configuration Management Plan	Control of key O&M activities is covered by the M&O CLIN 0001, CM program and its implementing procedures.
DID-PRG-0011	Program Requirements Document	The PRD is a DOE/NNSA requirement maintained by UPO personnel. CNS will support as needed.

DID-PRG-0016	Performance Work Statement	The PWS is not a contractor-produced deliverable, and may be superseded by the structure and content of CLIN 0002 of the prime contract and associated fee annexes. CNS will support and supply information as needed.
DID-PRG-0019/T	Project Data Sheet	The PDS is a summary of the cost and schedule for an NNSA construction project, and is submitted by the FPD. CNS will provide input for the development of the final PDS as required. Funding requirement information is included in the MPR. .
DID-SAF-0014/T	Integrated Safety Management Plan	The UPF project operates under the M&O CLIN 0001, ISM Program implementing policies and procedures. The requirements of this program are flowed to UPF.
DID-SAF-0015	Safety Design Control Plan	The Safety Design Control Plan contents are captured within the DSA/TSR and the UPF Safety Design Strategy. A separate deliverable will not be generated.
DID-SEC-0004/T	Safeguards and Security Requirements	The UPF project operates under the security envelope that is the responsibility of the CNS M&O CLIN 0001 Safeguards, Security, and Emergency Services Organization.
OT-SEC-1006/T	Comprehensive Emergency Management System	The UPF project operates under the security envelope that is the responsibility of the CNS M&O CLIN 0001 Safeguards, Security, and Emergency Services Organization.

U.S. Department of Energy National Nuclear Security Administration UPF Project Office Data Item Description (DID)	No: **UPO-DID-MGMT-81468-T** Rev: 0 Approval date: **01/24/2019**

1. DID #

UPO-DID-MGMT-81468-T

2. APPROVAL DATE

January 24, 2019

3. TITLE

Contract Funds Status Report (CFSR)

4. LIMITATIONS

Not applicable.

5. APPLICABLE FORMS

Included herein.

6. DESCRIPTION/PURPOSE

The Contract Funds Status Report (CFSR), is to enable the project to supply funding data regarding NNSA contracts/projects to Federal Project Directors and Contracting Officers.

7. INTENDED USE/INTERRELATIONSHIPS

The Contract Funds Status Report (CFSR), DD Form 1586, Sample Format 1, is designed to supply funding data about NNSA contracts/projects to Federal Project Directors and Contracting Officers for: (a) updating and forecasting contract funds requirements for the identified project, (b) planning and decision making on funding changes to contracts for the identified project, (c) developing funds requirements and budget estimates in support of the identified project, (d) determining funds in excess of contract needs and available for deobligation, and (e) obtaining rough estimates of termination costs.

This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the contract.

This DID may be used in conjunction with the Contract Work Breakdown Structure DID, DID-PM-0022/T, and the Cost/Schedule Status Report DID, DID-PRG-0022/T.

Contractual Application. The CFSR is applicable to contracts for capital asset projects where EVMS is required. A CFSR should be prepared for each individual project with a unique PARS number. In blocks 9 through 14, the values entered should be for the specified project and not at the overarching contract level.
Level of Reporting. If a contract is funded with a single appropriation, a single line entry at the total contract level should be considered for CFSR reporting. Reporting by line item or WBS element will be limited to only those items or elements needed to support funds management requirements. A reduced level of reporting may be implemented on contracts (a) with projects less than $100M; (b) that are for time and material; or (c) for which only limited funding requirements information is needed.

Multiple Appropriations. Where two or more appropriation sources are used for funding a single contract, contractors will segregate funds data by appropriation accounting reference. The Contracting Officer will supply the appropriation numbers applicable to individual line items or WBS elements. If a single line item or WBS element is funded by more than one appropriation, methods for segregating and reporting such information will be negotiated and specified in the contract.

Frequency and Submission. The CFSR will be a contractual requirement submitted to the Contracting Officer and reported as part of the PARS Upload. Unless otherwise provided in the contract, the CFSR will be prepared as of the end of each contractor business month. The required number of copies of the CFSR will be forwarded within 25 calendar days after the "as of" date of the report, or as otherwise specified in the contract.

Explanations of Terms.

Open Commitments. For this report, a commitment represents the estimated obligation of the contractor (excluding accrued expenditures) to vendors or subcontractors (based on the assumption that the contract will continue to completion).

Accrued Expenditures. For this report, include recorded or incurred costs as defined within the Allowable Cost, Fee and Payments Clause (FAR 52.216-7) for cost type contracts or the Progress Payments Clause (FAR 52.232-16) for fixed price type contracts, plus the estimated fee or profit earned. Such costs include:

Actual payments for services or items purchased directly for the contract.

Costs incurred, but not necessarily paid, for storeroom issues, direct labor, direct travel, direct other in-house costs and allocated indirect costs.

Progress payments made to subcontractors.

Pension costs provided they are paid at least quarterly.

Termination Costs. Although this report is prepared on the basis that the contract will continue to completion, it is necessary to report estimated termination cost by government fiscal year and generally by more frequent intervals on incrementally funded contracts. The frequency will be dependent on the funding need dates and should be compatible with the contract funding clauses, Limitation of Funds clause (cost type contracts) or Limitation of Obligation clause (fixed price type contracts). Termination costs include such items as loss of useful life of special tooling, special machinery and equipment; rental cost of unexpired leases; and settlement expenses. The definition of termination costs is included in FAR 31.205-42.

The CFSR data upload requirements may be "tailored" as defined in the PARS Upload Requirements.

8. PREPARATION/CONTENT INSTRUCTIONS AND REQUIREMENTS:

Format. Contractor formats should be substituted whenever they contain all the required data elements at the specific reporting levels in a form suitable for management.

Content. The CFSR shall contain the following information:

Item 1 - Contract Number. Enter the assigned contract number and the latest modification number on which contractual agreement has been reached

Item 2 - Contract Type. Enter the type of contract as identified in FAR Part 16 (e.g., Cost Plus Fixed Fee (CPFF), Fixed Price Incentive (FPI), etc.).

Item 3 – Contract Funding For. Enter the applicable type as follows:

Multi-Year Procurement (MYP)

Incrementally Funded Contract (INC)

Contract for a Single Year (SYC)

For FY. For contracts which are financed with funds appropriated in more than one fiscal year, a report is required for each fiscal year's funds where the separate year's funds in the contract are associated with specific quantities of hardware or services to be furnished. The fiscal year (s) being reported will be shown in this block and that year's share of the total target prices (initial and adjusted) will be shown in Items 9 and 10.

Item 4 - Appropriation. Enter the appropriation name in this block.

Item 5 - Previous Report Date. Enter the cut-off date of the previous report. (Year, Month, Day)

Item 6 - Current Report Date. Enter the cut-off date applicable to this report. (Year, Month, Day)

Item 7 - Contractor. Enter the name and mailing address of the reporting contractor.

Item 8 - Program. Identify the project by name and PARS number.

Item 9 - Initial Contract Price. Enter the dollar amounts for the initial negotiated contract target price (or estimated price for non-incentivized contracts) and contract ceiling price when appropriate. For contracts which are financed with funds appropriated in more than one fiscal year, only the share of the total initial target and ceiling associated with the fiscal year shown in Item 3 will be entered.

Item 10 - Adjusted Contract Price. Enter the dollar amounts for the adjusted contract target price (initial negotiated contract plus supplemental agreements) and adjusted contract ceiling price or estimated ceiling price where appropriate. For contracts which are financed with funds appropriated in more than one fiscal year, only the share of the total adjusted target and ceiling associated with the fiscal year shown in Item 3 will be entered.

Item 11 - Funding Information

Column a. - Line Item/Work Breakdown Structure (WBS) Element. Enter the line item or WBS elements specified for CFSR coverage in the contract.

Column b. - Appropriation Identification. Enter the appropriation number for the contract or, if applicable, each line item or WBS element) will be shown in Items 9 and 10.

Column c. - Funding Authorized To Date. Enter dollar amounts of contract funding authorized under the contract from the beginning of the fiscal year(s) shown in Item 3 through the report date shown in Item 6.

Column d. - Accrued Expenditures Plus Open Commitments Total. For contract work authorized, enter the total of (a) the cumulative accrued expenditures incurred through the end of the reporting period, and (b) the open commitments on the "as of" date of the report. Enter the total applicable to funds for the fiscal year(s) covered by this report as shown in Item 3.

Separation of Open Commitments and Accrued Expenditures. On selected contracts, the separation of open commitments and accrued expenditures by line item or WBS element may be a negotiated requirement in the contract. Utilization of this provision should be held to the minimum essential to support information needs of NNSA. In the event this

separation of data is not available in the contractor's accounting system or cannot be derived without significant effort, provision should be made to permit use of estimates. The procedures used by the contractor in developing estimates shall be explained in the Remarks section of the report.

Notice of Termination. When a Notice of Termination has been issued, potential termination liability costs will be entered in this column. They will be identified to the extent possible with the source of liability (prime or subcontract).

Column e. - Contract Work Authorized - Definitized. For the fiscal year(s) shown in Item 3, enter the estimated price for the authorized work on which contractual agreement has been reached, including profit/fee, incentive and cost sharing associated with projected over/underruns. Amounts for contract changes will not be included in this item unless they have been priced and incorporated in the contract through a supplemental agreement.

Column f. - Contract Work Authorized - Not Definitized. Enter the contractor's estimate of the funds requirements for performing required work (e.g., additional agreements or changes) for which firm contract prices have not yet been agreed to in writing by the parties to the contract. Report values only for items for which written orders have been received. For incentive type contracts, show total cost to the Government (recognizing contractor participation). Enter in the Remarks section a brief but complete explanation of the reason for the change in funds.

Column g. - Subtotal. Enter the total estimated price for all work authorized on the contract (Column e. plus Column f.).

Column h. - Forecast - Not Yet Authorized. Enter an estimate of funds requirements, including the estimated amount for fee/profit, for changes proposed by the Government or by the contractor, but not yet directed by the contracting officer. In the Remarks section state each change document number and estimated value of each change.

Column i. - Forecast - All Other Work. Enter an estimate of funds requirements for additional work anticipated to be performed (not included in a firm proposal) which the contractor, based on his knowledge and experience, expects to submit to the Government within a reasonable period of time.

Column j. - Subtotal. Enter an estimate of total requirements for forecast funding (the sum of Column h. plus Column i.). Specific guidelines on what the contractor may include in the funding forecast section may be made a part of the contract.

Column k. - Total Requirements. Enter an estimate of total funds requirements for contract work authorized and forecast (the sum of Column g. plus Column j.).

Column l. - Funds Carryover. For incrementally funded contracts only, report the amount by which the prior federal fiscal year funding was in excess of the prior year's requirement. If there is no carryover, report zero. Specific instructions for the use of this item may be made a part of the contract.

Column m. - Net Funds Required. Enter an estimate of net funds required, subtracting funds carryover in Column 1 from total requirements in Column k.

Column Totals. Totals should be provided for Columns c. through m. for all line items or WBS elements reported.

Item 12 - Contract Work Authorized (With Fee/Profit) - Actual Or Projected. Data entries will be as follows: In the first column, actuals cumulative to date; in all other columns except the last, projected cumulative amounts from the start of the contract to the end of the period indicated in the column heading; in the last column, the projected cumulative amounts from the start to the end of the contract or fiscal year being reported. When the contractor has developed a range of estimates at completion, the most likely estimate shall be used to develop the projected cumulative data in this item.

Column Headings. Columns 2 through 9 will be headed to indicate periods covering the life of the contract or fiscal year being reported and may be headed to show months, quarters, half years and/or fiscal years as prescribed by the contracting officer.

Data Composition. Projected data should include all planned obligations, anticipated accruals, anticipated over/under targets (total cost to the Government recognizing contractor participation), G&A, and fee/profit. For award fee contracts, the fee actually awarded will be included in Column 1, Actual to Date. The contractor shall describe in the Remarks section the amount, by period, and rationale for any award fee projections included in Columns 2 through 10.

Item 12.a. - Open Commitments. In the first column enter commitments open as of the date of the report. In subsequent columns enter the commitments projected to be open as of the end of each period indicated by the column headings. The amount entered will be the projected cumulative commitments less the planned cumulative expenditures as of the end of time period indicated. At the end of the contract, the amount will be zero.

Item 12.b. - Accrued Expenditures. In the first column enter actuals to date. In subsequent columns enter the projected cumulative accrued expenditures as of the end of each period indicated by the column headings.

Item 12.c. - Total (12.a. and 12.b.). In the columns provided, enter the total contract work authorized - actuals to date (Column 1) or projected (Columns 2 through 10). This total is the sum of open commitments and accrued expenditures projected through the periods indicated by the column headings. Significant changes in the amount or time-phasing of this item shall be explained in the Remarks section.

Item 13 - Forecast Of Billings To The Government. In the first column enter the cumulative amount received from the Government plus any unpaid billings to the Government through the current report date, including amounts applicable to progress or advance payments. In succeeding columns enter the amount expected to be billed to the Government during each period reported (assuming the contract will continue to completion). Amounts will not be cumulative.

Item 14 - Estimated Termination Costs. In the columns provided, enter the estimated costs that would be necessary to liquidate all government obligations if the contract were to be terminated in that period. These entries are the amounts required in addition to the amounts shown in Item 12. Applicable fee/profit should be included. These entries may consist of "rough order of magnitude" estimates and will not be construed as providing formal notification having contractual significance. This estimate will be used to assist the Government in budgeting for the potential incurrence of such cost. On contracts with Limitation of Funds/Obligation clauses, where termination costs are included as part of the funding information in Block 11, enter the amounts required for termination reserve on this line.

Remarks Section.

General. This section shall contain any additional information or remarks which support or explain data submitted in this report. At a minimum, the contractor shall present the following information: (a) explanations of funds changes; (b) procedures used to develop estimates of open commitments and accrued expenditures; (c) the amount and rationale for any award fee projections included in Item 12; (d) explanations of significant changes in the amount or time phasing of actual or projected total contract work authorized; and (e) any other information deemed significant or noteworthy. The contractor also shall provide a projected contract completion date that supports the funding projections in Item 12.

Changes. The Remarks section shall contain information regarding changes, as indicated below. A change in a line item shall be reported when the dollar amount reported in Item 11, Column k. of this submission differs from that reported in the preceding submission. The movement of dollar amounts from one column to another (Item 11, Columns e. through j.), indicating a change in the firmness of funds requirements, need not be reported in this section. Change reporting shall include the following: the location of the changed entry (page, line, and column); the dollar amount of the change; and a narrative explanation of the cause of each change.

CLASSIFICATION

CONTRACT FUNDS STATUS REPORT *(Dollars in)* — *Form Approved OMB No. 0704-0188*

The public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ADDRESS.

1. CONTRACT NUMBER	3. CONTRACT FUNDING FOR FOR FY	5. PREVIOUS REPORT DATE	7. CONTRACTOR *(Name, address and zip code)*	9. INITIAL CONTRACT PRICE
				a. TARGET
				b. CEILING
2. CONTRACT TYPE	4. APPROPRIATION	6. CURRENT REPORT DATE	8. PROGRAM	10. ADJUSTED CONTRACT PRICE
				a. TARGET
				b. CEILING

11. FUNDING INFORMATION

LINE ITEM/WBS ELEMENT a	APPROPRIATION IDENTIFICATION b	FUNDING AUTHORIZED TO DATE c	ACCRUED EXPENDITURES OPEN COMMITMENTS TOTAL d	CONTRACT WORK AUTHORIZED			FORECAST			TOTAL REQUIREMENTS k	FUNDS CARRY-OVER l	NET FUNDS REQUIRED m
				DEFINITIZED e	NOT DEFINITIZED f	SUBTOTAL g	NOT YET AUTHORIZED h	ALL OTHER WORK i	SUBTOTAL j			

12. CONTRACT WORK AUTHORIZED *(With Fee/Profit)* - ACTUAL OR PROJECTED

	ACTUAL TO DATE									AT COMPLETION
a. OPEN COMMITMENTS										
b. ACCRUED EXPENDITURES										
c. TOTAL *(12a + 12b)*										
13. FORECAST OF BILLINGS TO THE GOVERNMENT										
14. ESTIMATED TERMINATION COSTS										

15. REMARKS

DD FORM 1586, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Page _____ of _____ Pages

CLASSIFICATION

Designed using Perform Pro, WHS/DIOR, Aug 96

9. END OF DID

UPO-DID-MGMT-81468-T

U.S. Department of Energy National Nuclear Security Administration UPF Project Office Data Item Description (DID)	No: **UPO-DID-PM-0026-T** Rev: 0 Approval date: **01/24/2019**

1. DID #

UPO-DID-PM-0026-T

2. APPROVAL DATE

January 24, 2019

3. TITLE

Monthly Project Report

4. LIMITATIONS

Not applicable.

5. APPLICABLE FORMS

Not Applicable.

6. DESCRIPTION/PURPOSE

The contractor is accountable for successful execution of the assigned scope of work in accordance with applicable requirements. Protection of worker and public safety, the environment, and security are essential and implicit elements of successful scope of work performance. Accordingly, the model for performance measurement is to rely on the contractor to comply with Department of Energy (DOE)/National Nuclear Security Administration (NNSA) contractual requirements; utilize national consensus standards; and employ appropriate measures, metrics, and evidence to manage the scope of work with appropriate risk management and transparency to the government.

7. INTENDED USE/INTERRELATIONSHIPS

The Monthly Project Report is intended to provide the Contracting Officer (CO) and the COR with the necessary information to determine contractor performance in accordance with contract requirements. The Performance Measurement Plan is intended to promote prudent contractor risk management and contractor accountability.

The Monthly Project Report shall be consistent with the following documents, where required under the Contract:

- The DOE/NNSA Cost Management Initiative (CMI) database in the Uniform Program Cost Reporting Structure (UPCRS);

- Key Project Assumptions (see DID-PRG-0004, Key Project Assumptions);
- Risk Management Plan (see DID-PM-0018, Risk Management Plan);
- Resource-Loaded Schedule (see DID-PM-0027, Resource-Loaded Schedule);
- Performance Measurement Baseline (see DID-PRG-0006, Performance Baseline);
- Earned Value Management Plan (see DID-PM-0006, Earned Value Management Plan); and
- Quality Assurance Plan (see DID-PM-0031, Quality Assurance Plan).

8. PREPARATION INSTRUCTIONS AND APPLICABLE DOCUMENTS

The Monthly Project Report shall be prepared in accordance with DOE/NNSA requirements. DOE Order (O) 413.3B, Program and Project Management for the Acquisition of Capital Assets, Attachment 1, Contractor Requirements Document, requires contractors with cost re-imbursement contracts to submit monthly project performance data starting no later than 3 months following Critical Decision (CD)-2, Approval of Baseline. The project performance data shall include:

- Earned value (see American National Standards Institute/Electronic Industries Alliance ANSI/EIA-748-B, Earned Value Management Systems);
- Earned value time-phased incremental cost and quantity;
- Management reserve;
- Schedule;
- Variance analysis; and
- Risk management data.

9. CONTENT INSTRUCTIONS

The Monthly Project Report shall describe how monthly reports of contractor performance will present cost, schedule, and technical performance in form and substance as required by the CO. Monthly general management reports shall be submitted to the CO that summarize schedule, labor, cost, and technical status, and provide explanations of variances from planned progress.

9.1 FRONT MATTER

The front matter of the Monthly Project Report shall contain the following information, at a minimum:

9.1.1 Cover (Title) Page. Include revision number, date of issue, and status, draft or final.

9.1.2 Revision Page. Identify change history.

9.1.3 Approval Page. Include in final publication.

9.1.4 Executive Summary.

9.1.5 Table of Contents.

9.1.6 List of Figures/Tables.

9.1.7 Acronyms/Abbreviations.

9.2 MAIN BODY

The main body of the Monthly Project Report shall include:

- Executive Summary
    - Safety, Quality, Performance
    - Management Summary Plan
    - UPF Milestones and Critical Path
    - Risk Mitigation
- Performance, TPC Management, and Funding
    - Cost and Schedule Performance
    - Start and Finish Metrics
    - Trend Management
    - Critical Path
    - Staffing
    - Funding
- Project Review
    - ES&H
    - Engineering and Technology
    - Procurements
    - Construction
    - UPF Integration
    - Quality
    - Security

9.3 APPENDICES (OPTIONAL)

The Monthly Project Report appendices shall contain any general information that aids in understanding the document (e.g., glossary, acronyms) or information that should be published separately for convenience (e.g., technical data). Each appendix shall be referenced in the main body of the document where the data would normally have been provided. Appendices may or may not be bound as separate documents.

Appendix A to the Monthly Project Report shall be the content required by DID-PM-0036/T, Federal Project Director Monthly Report.

Appendix B shall be the month end critical path schedule.

10. END OF DID

UPO-DID-PM-0026-T

U.S. Department of Energy National Nuclear Security Administration UPF Project Office Data Item Description (DID)	No: **UPO-DID-PM-0036-T** Rev: 0 Approval date: **01/24/2019**

1. DID #

UPO-DID-PM-0036-T

2. APPROVAL DATE

January 24, 2019

3. TITLE

Federal Project Director Monthy Project Review

4. LIMITATIONS

Not applicable.

5. APPLICABLE FORMS

Not Applicable.

6. DESCRIPTION/PURPOSE

The Federal Project Director (FPD) Monthly Project Review (MPR) is a meeting with accompanying presentation documentation, which provides the NNSA customer with details of the project's status (e.g., cost, schedule, and scope) and provides an opportunity to discuss project successes and difficulties. It is a time to discuss factors or issues that may impact on-time completion of project milestones so that these issues can be effectively addressed. A Monthly Project Review may be required for each project, and any subprojects that have received a Critical Decision-1. In addition, the frequency may be relaxed to quarterly at the request of the Contracting Officer, or Contracting Officer Representative.

7. INTENDED USE/INTERRELATIONSHIPS

The FPD MPRs are initiated following Critical Decision (CD)-1 approval, and are continued through project closeout. The FPD MPR is closely aligned with the all project reporting requirements (see DID-PRG-0013, Metrics Monthly Reporting Requirements; DID-PRG-0021, Monthly Status PARS II Report; DID-PM-0021, Task Order Status Report; and DID-PM-0024, Fixed Price Contract Milestone and Schedule Status Report); and the Project Management Plan (see DID-PM-0013, Project Management Plan).

8. PREPARATION INSTRUCTIONS AND APPLICABLE DOCUMENTS

The documents cited herein refer to the most recent versions or successor documents, if applicable. Department of Energy (DOE) Order (O) 413.3B, Program and Project Management for the Acquisition of Capital Assets, requires quarterly project reviews following CD-1 approval. Earned value metrics and project/subproject costs will be as of the most recent business close. All other elements will be contemporary and reflect the available information as of two weeks prior to the FPD MPR presentation.

A series of slides shall be prepared and provided in native format in support of the FPD MPR. General expectations requiring the format and content of the slide deck are described below. The exact slide by slide order and content will be provided by UPO to CNS via correspondence.

1. Measure Against Performance Measurement Baselines - Subproject performance shall be reported against the approved schedule baselines as included in the Performance Measurement Baseline. CNS shall ensure the project is reported against the Performance Measurement Baseline for all data. Supplemental data against a forecast schedule may be provided at CNS's discretion.

2. Editable Tables and Native Files
   Tables in the Monthly Project Review will be editable in the slide deck (presented and revised) so that slide elements may be edited by UPO with the respective submission. Upon UPO request, native files may be provided by CNS via e-mail or posted in a central location accessible by UPO.

3. Government Furnished Information
   Some of the UPF project status CNS is directed to integrate may require information from National Nuclear Security Administration (NNSA). CNS shall provide a data request with a comprehensive list of NNSA information needed, a due date and a single point of contact to UPO. The due date shall support the slide deck delivery schedule noted in item 4 so that UPO has at least five (5) working days in advance of the due date to compile the needed information.

4. Slide Deck Development Schedule
   CNS shall provide the monthly slide deck per the schedule below.

Event	Date
Final slide deck provided to UPO	At least 48 hours prior to the review
CNS presentation to UPO	No later than the 28th of each month.
Revised slide deck to UPO incorporating comments	No later than 48 hours after the CNS presentation

If these dates are unachievable in any month CNS shall coordinate with UPO to determine if the date for the review should be adjusted accordingly.

5. Earned Value Management System (EVMS) Metrics
   Earned Value Management System (EVMS) metrics shall be as of the close of the prior month's reporting cycle; all other information shall be contemporary and reflect the available information as of two weeks prior to the presentation to UPO. Slides discussing cost, schedule, etc. should use the terms Baseline and Forecast; the term "Plan" should not be used. Metrics shall be presented against the baseline change proposal that incorporated the project's March 2, 2018 submitted schedule and March 21 Notice to Proceed with any subsequent approved baseline changes.

9. END OF DID

UPO-DID-PM-0036-T

U.S. Department of Energy National Nuclear Security Administration UPF Project Office Data Item Description (DID)	No: **UPO-DID-PRG-0022-T** Rev: 0 Approval date: **01/24/2019**

1. DID #

UPO-DID-PRG-0022-T

2. APPROVAL DATE

January 24, 2019

3. TITLE

Integrated Program Management Report (IPMR)

4. LIMITATIONS

Not applicable.

5. APPLICABLE FORMS

Not Applicable.

6. DESCRIPTION/PURPOSE

The Integrated Program Management Report (IPMR) is a management report that provides timely, reliable summary-level data to assess current and projected contract performance. It also provides contract cost and schedule performance data that is used to identify problems early and forecast future contract performance in the Earned Value Management System (EVMS). The IPMR conveys information about the performance of a program or contract, and is the primary means of documenting the ongoing communication between the contractor and the Federal Project Director (FPD) to report cost and schedule trends. The data contained in the IPMR should accurately reflect how work is being planned, performed, and measured, consistent with the actual contract status.

7. INTENDED USE/INTERRELATIONSHIPS

The IPMR contains data for measuring cost and schedule performance on Department of Energy (DOE) acquisition contracts. It is structured around seven formats that contain the content and relationships required for the electronic submissions. The IPMR is initiated prior to Critical Decision (CD)-2 and shall be used by the FPD to:

- Integrate cost and schedule performance data with technical performance measures;
- Identify the magnitude and impact of actual and potential problem areas

causing significant cost and schedule variances; and
- Provide valid, timely program status information to higher management.

Format 1 defines cost and schedule performance data by product- oriented Work Breakdown Structure (WBS).

Format 2 defines cost and schedule performance data by the contractor's organizational structure (e.g., Functional or Integrated Product Team (IPT)).

Format 3 defines changes to the Performance Measurement Baseline (PMB).

Format 4 defines staffing forecasts.

Format 5 is a narrative report used to provide the required analysis of data contained in Formats 1-4 and 6.

Format 6 defines and contains the contractor's Integrated Master Schedule (IMS).

The IPMR's primary value to the Government is its utility in reflecting current contract status and projecting future contract performance. It will be used by the NNSA staff, including program managers, engineers, cost estimators, and financial management personnel, as a basis for communicating performance status with the contractor. NNSA will also use the IPMR data for the following purposes:

- Integrate cost and schedule performance data with objective technical measures of performance.

- Identify the magnitude and impact of realized and potential performance problem areas that may cause significant cost and schedule variances.

- Provide valid, timely, and accurate contract status information to Government leadership.

- The IPMR data must be consistent with the contractor's actual contract status.

The IPMR is used to obtain cost and schedule performance information on contracts requiring compliance with the American National Standards Institute/Electronic Industries Alliance Standard 748 (ANSI/EIA-748), Earned Value Management Systems (EVMS) (current version in effect at time of contract award). The IPMR data elements must reflect the output of the contractor's ANSI/EIA-748 compliant system, where applicable. The IPMR is closely aligned with the project's Earned Value Management Plan (see DID-PM-0006, Earned Value Management Plan) and the contract's Work Breakdown Schedule (WBS) (see DID-PM-0022, Work Breakdown Structure and WBS Dictionary).

Table 1. Six IPMR Formats

Title	Reporting Frequency	Description	Based on DoD
Format 1: WBS	Monthly	Reports performance data (BCWS, BCWP and ACWP) by reporting WBS elements for the current reporting period as well as cumulative to date. Cost and schedule variances are calculated and reported from the data. Identifies any reprogramming adjustments, BAC, EAC, and VAC by element. Also shows management reserve (MR) and undistributed budget (UB). The report shall be provided in dollars. The report shall be provided at the control account level, and shall also be provided at the work package level.	DD Form 2734/1
Format 2: Organizational Categories	Monthly	Reports the same data as Format 1, except containing organizational elements or IPT levels. Identifies major subcontractors and material separately.	DD Form 2734/2
Format 3: Baseline	Monthly/Quarterly	Budgeted time-phased baseline Performance Measurement Baseline (PMB) through program completion. This format shows significant baseline changes authorized during the reporting period. Data includes CBB, TAB, MR, UB, and completion dates. Report shall be provided in dollars and hours.	DD Form 2734/3
Format 4: Staffing	Monthly/Quarterly	Staffing data (Full-time equivalents) plotted over time and correlated to major milestones and activities on the contract schedule shows accuracy of labor levels. Staffing data in hours shall also be provided.	DD Form 2734/4
Format 5: Explanation and Problem Analyses	Monthly	Narrative explanation of key cost, schedule variances. Contractor describes underlying reasons, program impacts, and corrective action plans for significant drivers at the work package and at the total contract level. Includes analysis of MR, UB, and overall risk.	N/A
Format 6: Integrated Master Schedule	Monthly	Defines the schedule for completing the contract. Customer has access to month end Primavera files. Total month end schedule information is also included in the PARS II data.	N/A

8. PREPARATION INSTRUCTIONS AND APPLICABLE DOCUMENTS

The documents cited herein refer to the most recent versions or successor documents, if applicable. The IPMR shall be prepared in accordance with DOE/NNSA requirements and this DID. The IPMR data shall reflect the output of the contractor's ANSI/EIA-748 compliant EVMS. See DOE Order (O) 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and American National Standards Institute/Electronic Industries Alliance Standard *ANSI/EIA-748, Earned Value Management Systems (EVMS)*.

9. CONTENT INSTRUCTIONS

Formats 1-6 shall be submitted to UPO on the last calendar day following the reporting period. All Formats shall reflect the same reporting period.

9.1 FORMAT 1 - WORK BREAKDOWN STRUCTURE

The purpose of Format 1 is to isolate key cost and schedule variances, quantify the impact, analyze, and project future performance. Performance issues are isolated at the lowest level and analyzed for impact to overall cost and schedule variances. The form and instructions for Format 1, Work Breakdown Structure, are contained in Attachment
A. Format 1 provides data to measure cost and schedule performance by product-oriented WBS elements. Format 1 is based on the DoD DID DI-MGMT-81466A, *Contract Performance Report*, and associated DoD form DD 2734/1, *Work Breakdown Structure* (OMB No. 0704-0188), both of which have been tailored to meet DOE/NNSA's needs.

9.2 FORMAT 2 - ORGANIZATIONAL CATEGORIES

The purpose of Format 2 is same as Format 1, but provides for analysis at the organizational elements and/or IPT level(s) as well as identifies major subcontractor and material performance. The Format 2 provides for analysis by organizational elements and/or IPT level(s) as well as identifies major subcontractor and material performance. The form and instructions for Format 2, Organizational Categories, are contained in Attachment B. Format 2 provides the same data as Format 1, but it is arranged by organizational and/or functional categories in the contractor's project organization. Format 2 is based on the DoD DID DI-MGMT-81466A, Contract Performance Report, and associated form DD 2734/2, Organizational Categories (OMB No. 0704-0188), which has been tailored to meet DOE/NNSA's needs.

9.3 FORMAT 3 – BASELINE

The form and instructions for Format 3, Baseline, are contained in Attachment C. Format 3 provides the budget baseline plan against which performance is measured. Format 3 is based on the DoD DID DI-MGMT-81466A, *Contract Performance Report*, and associated form DD 2734/3, *Baseline* (OMB No. 0704-0188), which has been tailored to meet DOE/NNSA's needs.

9.4 FORMAT 4 – STAFFING

The form and instructions for Format 4, Staffing, are contained in Attachment D. Format 4 provides staffing forecasts for correlation with the budget plan and cost estimates. Format 4 is based on the DoD DID DI-MGMT-81466A, *Contract Performance Report*, and associated form DD 2734/4,

Staffing (OMB No. 0704-0188), which has been tailored to meet DOE/NNSA's needs.

9.5 FORMAT 5 - EXPLANATION AND PROBLEM ANALYSIS

The form and instructions for Format 5, Explanation and Problem Analysis, are contained in Attachment E. Format 5 is a narrative report used to explain significant cost and schedule variances and other identified contract problems and topics. The project will address LOE vs. Discrete performance by subproject on the IPMR Format 5 report. Format 5 is based on the DoD DID DI-MGMT-81466A, *Contract Performance Report*, and associated form DD 2734/5, *Explanation and Problem Analysis* (OMB No. 0704-0188), which has been tailored to meet DOE/NNSA's needs.

9.6 FORMAT 6 - INTEGRATED MASTER SCHEDULE

Customer has access to month end Primavera files. Total month end schedule information is also included in the PARS II data.

NOTE: See Other Basis Records (OBR) for details on Attachment A – Formats 1-6.

10. END OF DID

UPO-DID-PRG-0022/T

APPENDIX E: Work Breakdown Structure (WBS)

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WBS	Level	Charge Code	Title	Scope	Method of Accomplishment	Deliverables / Execution Strategy
1.07.02.09.45.50.20.21.24	SWP	O5NO2400	FTP Tanks\Storage Facilities Procurement	FTP Procurement of Tanks and Storage Facilities to include: • Metallic Tanks • Non-Metallic Tanks • Bins and Silos • Boxes and Sumps	Method of Accomplishment for this scope of work (FTP Tanks/Storage Facilities Procure) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (FTP Tanks/Storage Facilities Procure)
1.07.02.09.45.50.20.21.26	SWP	O5NO2600	FTP Water Treatment (Skids) Procurement	Procurement of Water Treatment (skids) to include: • Make-up/Condensate Demin • Potable Water • Raw Water • Waste Water • Chemical Feed Water	Method of Accomplishment for this scope of work (FTP Water Treatment (Skids) Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (FTP Water Treatment (Skids) Procurement
1.07.02.09.45.50.20.21.27	SWP	O5NO2700	FTP Other Mechanical Procurement	FTP Procurement of other mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc. Field Material	Method of Accomplishment for this scope of work (FTP Other Mechanical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (FTP Other Mechanical Procurement)
1.07.02.09.45.50.20.21.28	SWP	O5NO2800	FTP Electrical Procurement	FTP Procurement of electrical equipment to include: • Transformers • Bus Duct • Power Distribution (MCCs) • Generators • Transfer Switches • Relays • Lighting • Heat Trace • Grounding • Cathotic Protection • Comms and Security	Method of Accomplishment for this scope of work (FTP Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (FTP Electrical Procurement)
1.07.02.09.45.50.20.41.10	SWP	O5SOS300	FTP System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the FTP.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.20.41.30	SWP	O5SOS200	FTP Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the FTP.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.20.41.40	SWP	O5SOS100	FTP Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the FTP.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.20.41.50	SWP	O5SOS500	FTP Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the FTP.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.

1.07.02.09.45.50.30.21.28	SWP	O6MO2800	SDG Electrical Procurement	Installation of electrical equipment to include: • Transformers • Bus Duct • Power Distribution (SWBD, PDPs, PPs) • Generators • Transfer Switches • Relays • Lighting • Heat Trace • Grounding • Cathotic Protection • Comms and Security • UPS • VFD and Motor Starters	Method of Accomplishment for this scope of work (SDG Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SDG Electrical Procurement)
1.07.02.09.45.50.30.41.10	SWP	O6SOS300	SDG System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the SDG.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.30.41.20	SWP	O6SOS400	SDG Integrated Testing	BNI labor resources to support discrete tasks associated with Integrated Testing of the engineered systems and sub-systems associated with the SDG.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.30.41.30	SWP	O6SOS200	SDG Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the SDG.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.30.41.40	SWP	O6SOS100	SDG Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the SDG.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.30.41.50	SWP	O6SOS500	SDG Owner Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the SDG.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.40.20.21	SWP	OGNO2100	SAB/PSB Pumps, Drivers and Skids	SAB/PSB Procurement of Pumps, Drivers and Skids, to include: • Centrifugal pumps • Mag Drive pumps • Gear Drive Pumps • Process Skids (BOA)	Method of Accomplishment for this scope of work (SAB/PSB - Pumps, Drivers & Skids) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Pumps, Drivers & Skids)
1.07.02.09.45.50.40.20.27	SWP	OGNO2700	SAB/PSB - Other Mechanical	SAB/PSB - Other Mechanical	0	
1.07.02.09.45.50.40.20.38	SWP	OGNO3800	SAB/PSB - Gloveboxes	SAB/PSB - Gloveboxes	0	
1.07.02.09.45.50.40.21.21	SWP	O1NO2100	SAB/PSB - Pumps, Drivers & Skids	SAB/PSB Procurement (Perm. Equipment) of Pumps, Drivers and Skids, to include:• Centrifugal pumps• Mag Drive pumps• Gear Drive Pumps• Process Skids (BOA)	Method of Accomplishment for this scope of work (SAB/PSB - Pumps, Drivers & Skids) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Pumps, Drivers & Skids)
1.07.02.09.45.50.40.21.23	SWP	O1NO2300	SAB/PSB - Heat Exchangers	SAB/PSB Procurement of Heat Exchangers to include: • Shell and Tube Exchangers • Air-cooled Exchangers • Cooling Towers • Condensers • Evaporators	Method of Accomplishment for this scope of work (SAB/PSB - Heat Exchangers) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Heat Exchangers)

1.07.02.09.45.50.40.21.24	SWP	O1NO2400	SAB/PSB - Tanks & Storage Facilities	SAB/PSB Procurement of Tanks and Storage Facilities to include: • Metallic Tanks • Non-Metallic Tanks • Bins and Silos • Boxes and Sumps	Method of Accomplishment for this scope of work (SAB/PSB - Tanks & Storage Facilities) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Tanks & Storage Facilities)
1.07.02.09.45.50.40.21.25	SWP	O1NO2500	SAB/PSB - Material Handling & Processing	SAB/PSB Procurement of Material Handling & Processing Facilities to include: • Conveyors • Cranes-Hoists-Trolleys • Feeders • Screens • Crusher/Mills	Method of Accomplishment for this scope of work (SAB/PSB - Material Handling & Processing) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Material Handling & Processing)
1.07.02.09.45.50.40.21.26	SWP	O1NO2600	SAB/PSB - Water Treatment (Skids)	SAB/PSB Procurement of Water Treatment (skids) to include: • Make-up/Condensate Demin • Potable Water • Raw Water • Waste Water • Chemical Feed Water	Method of Accomplishment for this scope of work (SAB/PSB - Water Treatment (Skids)) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Water Treatment (Skids))
1.07.02.09.45.50.40.21.27	SWP	O1NO2700	SAB/PSB - Other Mechanical	SAB/PSB Procurement of other mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc. Field Material	Method of Accomplishment for this scope of work (SAB/PSB - Other Mechanical) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Other Mechanical)
1.07.02.09.45.50.40.21.28	SWP	O1NO2800	SAB/PSB Electrical	Procurement of electrical equipment to include:• Transformers• Bus Duct• Power Distribution (SWBD, PDPs, PPs)• Generators• Transfer Switches• Relays• Lighting• Heat Trace• Grounding• Cathotic Protection• Comms and Security• UPS• VFD and Motor Starters	Method of Accomplishment for this scope of work (SAB/PSB Electrical) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Electrical)
1.07.02.09.45.50.40.21.38	SWP	O1NO3800	SAB/PSB - Gloveboxes	SAB/PSB Procurement of gloveboxes and associated equipment to include: • Casting • Process equipment • Specialty Items (samplers, process reactors, pack-repack, etc.) • Turnkey Packaged Systems	Method of Accomplishment for this scope of work (SAB/PSB - Gloveboxes) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB - Gloveboxes)
1.07.02.09.45.50.40.41.10	SWP	O1SOS300	SAB/PSB System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the SAB/PSB.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.40.41.20	SWP	O1SOS400	SAB/PSB Integrated Testing	BNI labor resources to support discrete tasks associated with Integrated Testing of the engineered systems and sub-systems associated with the SAB/PSB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.40.41.30	SWP	O1SOS200	SAB/PSB Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the SAB/PSB.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.

1.07.02.09.45.50.40.41.40	SWP	O1SOS100	SAB/PSB Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the SAB/PSB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.40.41.50	SWP	O1SOS500	SAB/PSB Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the SAB/PSB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.50.11.05	SWP	O8EC0000	SAB Civil	SAB Civil Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.10	SWP	O8ES0000	SAB Structural	SAB Structural Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.50.50.11.15	SWP	O8EA0000	SAB Architectural	Engineering labor resources required to support discrete SAB Architectural discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.20	SWP	O8EM0000	SAB Mechanical	Engineering labor resources required to support discrete SAB Mechanical discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.25	SWP	O8EL0000	SAB MET - Welding	Engineering labor resources required to support discrete SAB MET discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.30	SWP	O8EP0000	SAB Piping	Engineering labor resources required to support discrete SAB Piping discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.35	SWP	O8EZ0000	SAB Fire Protection	Engineering labor resources required to support discrete SAB Fire Protection discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.40	SWP	O8EH0000	SAB HVAC	Engineering labor resources required to support discrete SAB HVAC discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.45	SWP	O8EJ0000	SAB Process	Engineering labor resources required to support discrete SAB Process discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.50	SWP	O8ED0000	SAB Plant Design	Engineering labor resources required to support discrete SAB Plant Design discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.55	SWP	O8EE0000	SAB Electrical	Engineering labor resources required to support discrete SAB Electrical discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.60	SWP	O8EI0000	SAB I&C	Engineering labor resources required to support discrete SAB I&C discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.65	SWP	O8EN0000	SAB SAFETY BASIS - NCS	Engineering labor resources required to support discrete SAB Nuclear Safety discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.70	SWP	O8EF0000	SAB SAFETY BASIS - Facility Safety	Engineering labor resources required to support discrete SAB Facility Safety discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.11.75	SWP	O8EX0000	SAB Glovebox	Engineering labor resources required to support discrete SAB Glovebox discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject

1.07.02.09.45.50.50.11.80	SWP	O8EY0000	SAB Vendor Doc Review	SAB Vendor Doc Review Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.50.50.20.12	SWP	OMNO1200	SAB/PSB Concrete (and Concrete Related)	Scope of this Planning Package includes procurement costs of all Building concrete required for SAB/PSB system operations. This includes scope for vendors to submit design deliverables for project review, vendor drawings, supplier quality, testing, shipping and, if needed, any storage require. This does not include procurement NM support hours to manage this procurement, nor any engineering support to the vendor.	Method of Accomplishment for this scope of work will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.50.20.13	SWP	OMNO1300	SAB/PSB Building Structural & Misc Steel	Scope of this Planning Package includes procurement costs of all Structural Steel required for SAB/PSB system operations. This includes scope for vendors to submit design deliverables for project review, vendor drawings, supplier quality, testing, shipping and, if needed, any storage require. This does not include procurement NM support hours to manage this procurement, nor any engineering support to the vendor.	This Planning Package will be converted to individual procurement work packages for execution of suppliers scope at or prior to procurement award.	Fabrication, Receipt and Acceptance of materials purchased. Refer to Material Requisition and Purchase Order Award Documents.
1.07.02.09.45.50.50.20.15	SWP	OMNO1500	SAB/PSB Piping	Scope of this Planning Package includes procurement costs of all Miscellaneous FLEX HOSE required for SAB/PSB system operations. This includes scope for vendors to submit design deliverables for project review, vendor drawings, supplier quality, testing, shipping and, if needed, any storage require. This does not include procurement NM support hours to manage this procurement, nor any engineering support to the vendor.	This Planning Package will be converted to individual procurement work packages for execution of suppliers scope at or prior to procurement award.	Fabrication, Receipt and Acceptance of materials purchased. Refer to Material Requisition and Purchase Order Award Documents.
1.07.02.09.45.50.50.20.17	SWP	OMNO1700	SAB/PSB Instrumentation	Scope of this Planning Package includes procurement costs of all Instrumentation required for SAB/PSB system operations. This includes scope for vendors to submit design deliverables for project review, vendor drawings, supplier quality, testing, shipping and, if needed, any storage require. This does not include procurement NM support hours to manage this procurement, nor any engineering support to the vendor.	This Planning Package will be converted to individual procurement work packages for execution of suppliers scope at or prior to procurement award.	Fabrication, Receipt and Acceptance of materials purchased. Refer to Material Requisition and Purchase Order Award Documents.
1.07.02.09.45.50.50.21.11	SWP	O8NO1100	SAB/PSB Building Sitework	Procurement of SAB/PSB civil/architectural/structural bulk materials for all UPF direct-hire work, including:• Grading• Sewage/Drainage• Manholes/Boxes• Wells, Soil Tests• Piles and Caissons• Mass Fill	0	
1.07.02.09.45.50.50.21.12	SWP	O8NO1200	SAB/PSB Building Concrete	SAB/PSB Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Anchor bolts • Embeds • Rebar • Concrete	Method of Accomplishment for this scope of work (SAB/PSB Building Concrete) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Building Concrete)
1.07.02.09.45.50.50.21.13	SWP	O8NO1300	SAB/PSB Building SS	SAB/PSB Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Misc. Steel • Structural Steel • Racks-Grids-Platforms	Method of Accomplishment for this scope of work (SAB/PSB Building SS) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Building SS)

1.07.02.09.45.50.50.21.14	SWP	O8NO1400	SAB/PSB Building Architectural	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Architectural Specialties (non-paint, non-coating items) • Furnishing • Masonry • Plumbing • Security Gates/Doors/Barriers/Ports • Office/Medical/Lab equipment, storage and carts	Method of Accomplishment for this scope of work (SAB/PSB Building Architectural) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Building Architectural)
1.07.02.09.45.50.50.21.15	SWP	O8NO1500	SAB/PSB Piping Procurement	Procurement of bulk piping associated commodities for UPF direct-hire work. Includes:• Pipe Hangers• Miscellaneous Flex Hose• Manual Valves• Spooled Pipe• Bulk Pipe (non-spooled)• Plumbing Pipe (LB and SB)• Plumbing fixtures• Flange Bolts and Flange Insulation Kits• Specialty Pipe Fittings	Method of Accomplishment for this scope of work (SAB/PSB Piping) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Piping)
1.07.02.09.45.50.50.21.16	SWP	O8NO1600	SAB/PSB Electrical Bulks Procurement	Procurement of bulk electrical commodities for UPF direct-hire work, including: • Distribution Panel Boards • Security Alarms • Electrical Bulk Components: Building Electrical Wire, Fiber Cable and Lighting Fixtures, Distribution Transformers, Communications - ENS/PA, Cathodic Protection, Local Control Stations/Switches, Conduit Supports, Cable Tray Supports, Control Cable, Classified and Unclassified Telecommunications Bulks, Junction boxes, light switches, receptacles, DC batteries and chargers.	Method of Accomplishment for this scope of work (SAB/PSB Electrical Bulks) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Electrical Bulks)
1.07.02.09.45.50.50.21.17	SWP	O8NO1700	SAB/PSB Instrumentation	Procurement of equipment for instrumentation and controls:• Facility Monitoring and Control System (PLC/Controls)• Security Equipment Hardware • Misc. Sensing & Measuring Instruments• Control Valves (on/Off)• Tube Fittings & Valves• Conductivity Transmitters• Gas Detectors• Head Type DP Flow Meters• Level Switches• Level Transmitters - Radar• Magnetic Flow Meters• Pressure Gauges• Pressure Regulators• Pressure Transmitters• Solenoid Valves• Temperature Transmitters• Temperature Gauges	Method of Accomplishment for this scope of work (SAB/PSB Instrumentation) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB/PSB Instrumentation)
1.07.02.09.45.50.50.51.05	SWP	O8MA0000	SAB Field Non-Manual - Project Mgmt	Field Non-Manual Project management professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)
1.07.02.09.45.50.50.51.10	SWP	O8CS1000	SAB Field Non-Manual - Construction	Field Non-Manual Construction professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)
1.07.02.09.45.50.50.51.20	SWP	O8642000	SAB Field Non-Manual Resident Eng	Field Non-Manual Resident Engineers professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)
1.07.02.09.45.50.50.51.25	SWP	O8E10000	SAB Field NM Eng Supervision	Field Non-Manual Eng Supervision professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)
1.07.02.09.45.50.50.51.35	SWP	O8PC3500	SAB Field Non-Manual Project Controls	Field Non-Manual Project Controls professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)

1.07.02.09.45.50.50.51.40	SWP	O8SU4000	SAB Field NM Start-up, Ops & Maintenance	Field Non-Manual Start-up, Operations & Maintenance professional services specifically for support of SAB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SAB)
1.07.02.09.45.50.50.61.10	SWP	O8RP1000	SAB Production	CNS Production labor resources to support discrete tasks associated with Production activities required for Readiness Preparation, Certification and Confirmation within Chemical Recovery in the SAB subproject.	CNS Production Direct Hires and BOA resources	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.50.50.61.20	SWP	O8RM2000	SAB Maintenance	Maintenance labor resources required to support SAB discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	CNS Direct Hires or BOA	Completed owner turnover pkgs by UPF system. Approved & effective procedure by UPF process system. Baseline, qualification & certification of UPF operating & support personnel. Completion of observed procedures demonstration per approved cold ops plan. Implementation of 18 chapters of Con Ops Manual. Eff. safety basis per com. of approved Implementation Plan. Eff. CSE's in accordance with approved Implementation Plans. RCAB approve of all applicable readiness certs. Receipt of startup auth.
1.07.02.09.45.50.50.61.40	SWP	O8RM4000	SAB Maintenance	CNS Maintenance labor resources to support discrete tasks associated with Maintenance activities required for Readiness Preparation, Certification and Confirmation within Chemical Recovery in the SAB subproject.	CNS Maintenance Direct Hires and BOA resources	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.10.21.27	SWP	G2NO2700	HCON Other Mechanical Procurement	HCON Procurement of other mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc. Field Material	Method of Accomplishment for this scope of work (HCON Other Mechanical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (HCON Other Mechanical Procurement)
1.07.02.09.45.60.10.21.28	SWP	G2NO2800	HCON Electrical Procurement	Procurement of electrical equipment including but not limited to: • Transformers • Bus Duct • Power Distribution including Panelboards, Switchboards, Substations, Switchgear • UPS • Cable and Conduit • Lightning Protection • Lighting • CAAS, ENS/PA, and SDRS Systems • Grounding • Bulk Electrical Items • Comms and Security	Method of Accomplishment for this scope of work (HCON Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (HCON Electrical Procurement)
1.07.02.09.45.60.20.21.28	SWP	G3NO2800	PIDAS Electrical Procurement	Procurement of electrical equipment including but not limited to:• Transformers• Bus Duct• Power Distribution including Panelboards, Switchboards, Substations, Switchgear• UPS• Cable and Conduit• Lightning Protection• Lighting• CAAS, ENS/PA, and SDRS Systems• Grounding• Bulk Electrical Items• Comms and Security	Method of Accomplishment for this scope of work (PIDAS Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PIDAS Electrical Procurement)

1.07.02.09.45.60.20.41.10	SWP	G3SOS300	PIDAS System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the PIDAS.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.20.41.20	SWP	G3SOS400	PIDAS Integrated Testing	BNI labor resources to support discrete tasks associated with Integrated Testing of the engineered systems and sub-systems associated with the PIDAS.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.20.41.30	SWP	G3SOS200	PIDAS Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the PIDAS.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.20.41.40	SWP	G3SOS100	PIDAS Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the PIDAS.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.20.41.50	SWP	G3SOS500	PIDAS Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the PIDAS.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.30.21.28	SWP	G4NO2800	YARD Electrical Procurement	YARD Procurement of electrical equipment to include:• Transformers• Bus Duct• Power Distribution (MCCs)• Generators• Transfer Switches• Relays• Lighting• Heat Trace• Grounding• Cathotic Protection• Comms and Security	Method of Accomplishment for this scope of work (YARD Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (YARD Electrical Procurement)
1.07.02.09.45.60.30.41.10	SWP	G4SOS300	YARD System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the YARD.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.30.41.30	SWP	G4SOS200	YARD Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the YARD.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.30.41.40	SWP	G4SOS100	YARD Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the YARD.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.30.41.50	SWP	G4SOS500	YARD Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the YARD.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.30.51.10	SWP	G4E1YO00	SICD Design	SICD Design labor resources required to support YARD SICD system operations.	Method of Accomplishment for this scope of work (SICD Design) will be completed based on execution, maintenance and closure of design.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SICD Design)
1.07.02.09.45.60.30.51.20	SWP	G4EFYO00	SICD Safety Basis	SICD Safety Basis labor resources required to support YARD SICD system operations.	Method of Accomplishment for this scope of work (SICD Safety Basis) will be completed based on execution, maintenance and closure of Safety Basis.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SICD Safety Basis
1.07.02.09.45.60.30.51.30	SWP	G4CNYO00	SICD Construction & Tie-In	SICD Construction & Tie-In resources required to support YARD SICD system operations.	Method of Accomplishment for this scope of work (SICD Construction & Tie Ins) will be completed based on execution, maintenance and closure of construction installation.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SICD Construction & Tie Ins)
1.07.02.09.45.60.30.51.40	SWP	G4PEYO00	SICD Procurement	SICD Procurement labor resources required to support YARD SICD system operations.	Method of Accomplishment for this scope of work (SICD Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (SICD Procurement)

1.07.02.09.45.60.40.20.21	SWP	GDNE2100	MPB Pumps, Drivers and Skids	Procurement of Pumps, Drivers and Skids, to include:• Centrifugal pumps• Mag Drive pumps• Gear Drive Pumps• Process Skids (BOA)	Method of Accomplishment for this scope of work (MPB Pumps, Drivers & Skids Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Pumps, Drivers & Skids Procurement)
1.07.02.09.45.60.40.20.27	SWP	GDNE2700	MPB Other Mechanical	MPB Procurement of other mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc Field Material	Method of Accomplishment for this scope of work (MPB Other Mechanical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Other Mechanical Procurement)
1.07.02.09.45.60.40.20.38	SWP	GDNE3800	MPB Gloveboxes LLP	MPB LLP Procurement of gloveboxes and associated equipment to include: • Casting • Process equipment • Specialty Items (samplers, process reactors, pack-repack, etc) • Turnkey Packaged Systems	Method of Accomplishment for this scope of work will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.40.21.21	SWP	G1NO2100	MPB Pumps, Drivers & Skids Procurement	MPB Procurement of MPB Pumps, Drivers and Skids, to include: • Centrifugal pumps • Mag Drive pumps • Gear Drive Pumps • Process Skids (BOA)	Method of Accomplishment for this scope of work (MPB Pumps, Drivers & Skids Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Pumps, Drivers & Skids Procurement)
1.07.02.09.45.60.40.21.23	SWP	G1NO2300	MPB Heat Exchangers Procurement	Procurement of MPB Heat Exchangers to include: • Shell and Tube Exchangers • Air-cooled Exchangers • Cooling Towers • Condensers • Evaporators	Method of Accomplishment for this scope of work (MPB Heat Exchangers Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Heat Exchangers Procurement)
1.07.02.09.45.60.40.21.24	SWP	G1NO2400	MPB Tanks\Storage Facilities Procure	Procurement of MPB Tanks and Storage Facilities to include: • Metallic Tanks • Non-Metallic Tanks • Bins and Silos • Boxes and Sumps	Method of Accomplishment for this scope of work (MPB Tanks\Storage Facilities Procure) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Tanks\Storage Facilities Procure)
1.07.02.09.45.60.40.21.25	SWP	G1NO2500	MPB Material Handling\Process Procure	Procurement of Material Handling and Process to include:• Conveyors• Cranes-Hoists-Trolleys• Feeders• Screens• Crusher/Mills	Method of Accomplishment for this scope of work (MPB Material Handling\Process Procure) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Material Handling\Process Procure)
1.07.02.09.45.60.40.21.26	SWP	G1NO2600	MPB Water Treatment (Skids) Procurement	Procurement of MPB Water Treatment (skids) to include: • Make-up/Condensate Demin • Potable Water • Raw Water • Waste Water • Chemical Feed Water	Method of Accomplishment for this scope of work (MPB Water Treatment (Skids) Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Water Treatment (Skids) Procurement)

1.07.02.09.45.60.40.21.27	SWP	G1NO2700	MPB Other Mechanical Procurement	Procurement of other MPB mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc. Field Material	Method of Accomplishment for this scope of work (MPB Other Mechanical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Other Mechanical Procurement)
1.07.02.09.45.60.40.21.28	SWP	G1NO2800	MPB Electrical Procurement	Procurement of electrical equipment including but not limited to: • Transformers • Bus Duct • Power Distribution including Panelboards, Switchboards, Substations, Switchgear • UPS • Cable and Conduit • Lightning Protection • Lighting • CAAS, ENS/PA, and SDRS Systems • Grounding • Bulk Electrical Items • Comms and Security	Method of Accomplishment for this scope of work (MPB Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Electrical Procurement)
1.07.02.09.45.60.40.21.38	SWP	G1NO3800	MPB Gloveboxes Procurement	Procurement of MPB gloveboxes and associated equipment to include: • Casting • Process equipment • Specialty Items (samplers, process reactors, pack-repack, etc.) • Turnkey Packaged Systems	Method of Accomplishment for this scope of work (MPB Gloveboxes Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Gloveboxes Procurement)
1.07.02.09.45.60.40.41.10	SWP	G1SOS300	MPB System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the MPB.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.40.41.20	SWP	G1SOS400	MPB Integrated Testing	BNI labor resources to support discrete tasks associated with Integrated Testing of the engineered systems and sub-systems associated with the MPB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.40.41.30	SWP	G1SOS200	MPB Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the MPB.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.40.41.40	SWP	G1SOS100	MPB Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the MPB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.40.41.50	SWP	G1SOS500	MPB Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the MPB.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.50.11.05	SWP	G8EC0000	MPB Civil	Engineering labor resources required to support discrete MPB Civil discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.10	SWP	G8ES0000	MPB Structural	Engineering labor resources required to support discrete MPB Structural design tasks such as Confirmed Design deliverables, MR preparation, Technical Evaluation,	Engineering Labor Resources	Through completion of Subproject

				conform technical evaluations, fabrication drawings and close-out.		
1.07.02.09.45.60.50.11.15	SWP	G8EA0000	MPB Architectural	Engineering labor resources required to support discrete MPB Architectural discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.20	SWP	G8EM0000	MPB Mechanical	Engineering labor resources required to support discrete MPB Mechanical discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.25	SWP	G8EL0000	MPB MET	Engineering labor resources required to support discrete MPB MET discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.30	SWP	G8EP0000	MPB Piping	Engineering labor resources required to support discrete MPB Piping discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.35	SWP	G8EZ0000	MPB Fire Protection	Engineering labor resources required to support discrete MPB Fire Protection discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.40	SWP	G8EH0000	MPB HVAC	Engineering labor resources required to support discrete MPB HVAC discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.45	SWP	G8EJ0000	MPB Process	Engineering labor resources required to support discrete MPB Process discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.50	SWP	G8ED0000	MPB Plant Design	Engineering labor resources required to support discrete MPB Plant Design discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.55	SWP	G8EE0000	MPB Electrical	Engineering labor resources required to support discrete MPB Electrical discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.60	SWP	G8EI0000	MPB I&C	Engineering labor resources required to support discrete MPB I&C discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.65	SWP	G8EN0000	MPB SAFETY BASIS - NUCLEAR CRITICALITY	Engineering labor resources required to support discrete MPB Nuclear Criticality discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.70	SWP	G8EF0000	MPB SAFETY BASIS - FACILITY SAFETY	Engineering labor resources required to support discrete MPB Facility Safety discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.75	SWP	G8EX0000	MPB Glovebox	Engineering labor resources required to support discrete MPB Glovebox discipline design tasks such as Confirmed Design deliverables and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.11.80	SWP	G8PS0000	MPB Vendor Document Review	Engineering labor resources required to review and approve MPB Vendor Submittals.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.60.50.20.12	SWP	GDNO1200	MPB Concrete (and Concrete Related)	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work under AREA Subproject, including: • Anchor bolts • Embeds • Rebar • Concrete	Method of Accomplishment for this scope of work (MPB Concrete Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Concrete Procurement)

1.07.02.09.45.60.50.20.13	SWP	GDNO1300	MPB Structural and Misc Steel	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work under AREA Subproject, including: • Misc Steel • Structural Steel • Racks-Grids-Platforms	Method of Accomplishment for this scope of work (MPB Building Structural & Misc. Steel) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Building Structural & Misc. Steel)
1.07.02.09.45.60.50.20.14	SWP	GDNO1400	MPB Architectural	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work under AREA Subproject, including: • Architectural Specialties (non-paint, non-coating items) • Furnishing • Masonry • Plumbing • Security Gates/Doors/Barriers/Ports • Office/Medical/Lab equipment, storage and carts	Method of Accomplishment for this scope of work will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.50.20.15	SWP	GDNO1500	MPB Piping	Procurement of bulk piping associated commodities for UPF direct-hire work. Includes: • Pipe Hangers • Miscellaneous Flex Hose • Manual Valves • Spooled Pipe • Bulk Pipe (non-spooled) • Plumbing Pipe (LB and SB) • Plumbing fixtures • Flange Bolts and Flange Insulation Kits • Specialty Pipe Fittings	Method of Accomplishment for this scope of work (MPB Piping) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Piping)
1.07.02.09.45.60.50.20.17	SWP	GDNO1700	MPB Instrumentation	Procurement of equipment for instrumentation and controls:• Facility Monitoring and Control System (PLC/Controls)• Security Equipment Hardware • Misc. Sensing & Measuring Instruments• Control Valves (on/Off)• Tube Fittings & Valves• Conductivity Transmitters• Gas Detectors• Head Type DP Flow Meters• Level Switches• Level Transmitters - Radar• Magnetic Flow Meters• Pressure Gauges• Pressure Regulators• Pressure Transmitters• Solenoid Valves• Temperature Transmitters• Temperature Gauges	Method of Accomplishment for this scope of work (MPB Instrumentation Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Instrumentation Procurement)
1.07.02.09.45.60.50.21.11	SWP	G8NO1100	MPB Building Sitework	Procurement of MPB civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Grading • Sewage/Drainage • Manholes/Boxes • Wells, Soil Tests • Piles and Caissons • Mass Fill	Method of Accomplishment for this scope of work (MPB Building Sitework) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Building Sitework)
1.07.02.09.45.60.50.21.12	SWP	G1NO1200	MPB Building Concrete	Procurement of MPB civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Anchor bolts • Embeds • Rebar • Concrete	Method of Accomplishment for this scope of work (MPB Building Concrete) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Building Concrete)

1.07.02.09.45.60.50.21.13	SWP	G1NO1300	MPB Building Structural & Misc. Steel	Procurement of MPB civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Misc. Steel • Structural Steel • Racks-Grids-Platforms	Method of Accomplishment for this scope of work (MPB Building Structural & Misc. Steel) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Building Structural & Misc. Steel)
1.07.02.09.45.60.50.21.14	SWP	G8NO1400	MPB Building Architectural	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including:• Architectural Specialties (non-paint, non-coating items)• Furnishing• Masonry• Plumbing• Security Gates/Doors/Barriers/Ports• Office/Medical/Lab equipment, storage and carts	Method of Accomplishment for this scope of work (MPB Building Architectural) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Building Architectural)
1.07.02.09.45.60.50.21.15	SWP	G1NO1500	MPB Piping	Procurement of bulk piping associated commodities for UPF direct-hire work. Includes: • Pipe Hangers • Miscellaneous Flex Hose • Manual Valves • Spooled Pipe • Bulk Pipe (non-spooled) • Plumbing Pipe (LB and SB) • Plumbing fixtures • Flange Bolts and Flange Insulation Kits • Specialty Pipe Fittings	Method of Accomplishment for this scope of work (MPB Piping) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Piping)
1.07.02.09.45.60.50.21.16	SWP	G1NO1600	MPB Electrical Bulks	Procurement of bulk electrical commodities for UPF direct-hire work, including: • Distribution Panel Boards • Security Alarms • Electrical Bulk Components: Building Electrical Wire, Fiber Cable and Lighting Fixtures, Distribution Transformers, Communications - ENS/PA, Cathodic Protection, Local Control Stations/Switches, Conduit Supports, Cable Tray Supports, Control Cable, Classified and Unclassified Telecommunications Bulks, Junction boxes, light switches, receptacles, DC batteries and chargers.	Method of Accomplishment for this scope of work (MPB Electrical Bulks) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Electrical Bulks)
1.07.02.09.45.60.50.21.17	SWP	G1NO1700	MPB Instrumentation	Procurement of equipment for instrumentation and controls:• Facility Monitoring and Control System (PLC/Controls)• Security Equipment Hardware • Misc. Sensing & Measuring Instruments• Control Valves (on/Off)• Tube Fittings & Valves• Conductivity Transmitters• Gas Detectors• Head Type DP Flow Meters• Level Switches• Level Transmitters - Radar• Magnetic Flow Meters• Pressure Gauges• Pressure Regulators• Pressure Transmitters• Solenoid Valves• Temperature Transmitters• Temperature Gauges	Method of Accomplishment for this scope of work (MPB Instrumentation) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB Instrumentation)
1.07.02.09.45.60.50.51.05	SWP	G8MA0500	MPB Field Non-Manual Project Mgmt	Field Non-Manual Project management professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)
1.07.02.09.45.60.50.51.10	SWP	G8CS1000	MPB Field Non-Manual Construction	Field Non-Manual Construction professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)

1.07.02.09.45.60.50.51.20	SWP	G8640000	MPB Field Non-Manual Resident Eng	Field Non-Manual Resident Engineers professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)
1.07.02.09.45.60.50.51.25	SWP	G8E10000	MPB Field Non-Manual Eng Supervision	Field Non-Manual Eng Construction professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)
1.07.02.09.45.60.50.51.35	SWP	G8PC3500	MPB Field Non-Manual Project Controls	Field Non-Manual Project Controls professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)
1.07.02.09.45.60.50.51.40	SWP	G8SU4000	MPB Field NM Start-up, Ops & Maintenance	Field Non-Manual Start-up, Ops & Maintenance professional services specifically for support of MPB.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (MPB)
1.07.02.09.45.60.50.61.10	SWP	G8RP1000	MPB Production	CNS Production labor resources to support discrete tasks associated with Production activities required for Readiness Preparation, Certification and Confirmation within the MPB subproject.	CNS Production Direct Hires and BOA resources	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.60.50.61.20	SWP	G8RM2000	MPB Maintenance	Maintenance labor resources required to support MPB discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	CNS Direct Hires or BOA	Through completion of Subproject
1.07.02.09.45.60.50.61.50	SWP	G8RM4000	MPB Maintenance	CNS Maintenance labor resources to support discrete tasks associated with Maintenance activities required for Readiness Preparation, Certification and Confirmation within Casting in the MPB subproject.	CNS Maintenance Direct Hires and BOA resources	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.10.21.28	SWP	X7NO2800	GSA Electrical Procurement	GSA Procurement of electrical equipment to include: • Transformers • Bus Duct • Power Distribution (MCCs) • Generators • Transfer Switches • Relays • Lighting • Heat Trace • Grounding • Cathotic Protection • Comms and Security	Method of Accomplishment for this scope of work (GSA Electrical) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (GSA Electrical)
1.07.02.09.45.80.10.41.10	SWP	X7SOS300	GSA System Testing	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.	BNI Startup Direct Hire & BNI Construction Craft	Approved System test results documenting that each system operates in accordance with the functional requirements of the applicable design documents and meets the requirements of the respective approved functional acceptance criteria provided by Engineering.
1.07.02.09.45.80.10.41.20	SWP	X7SOS400	GSA Integrated Testing	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.	BNI Startup Direct Hire	Approved Integrated test results packages.
1.07.02.09.45.80.10.41.30	SWP	X7SOS200	GSA Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the GSA.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.10.41.40	SWP	X7SOS100	GSA Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the GSA.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.

1.07.02.09.45.80.10.41.50	SWP	X7SOS500	GSA Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the GSA.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.20.21.21	SWP	X1NO2100	PSF Pumps, Drivers & Skids Procurement	PSF Procurement of Pumps, Drivers and Skids, to include:• Centrifugal pumps• Mag Drive pumps• Gear Drive Pumps• Process Skids (BOA)	Method of Accomplishment for this scope of work (PSF Pumps, Drivers & Skids Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Pumps, Drivers & Skids Procurement)
1.07.02.09.45.80.20.21.22	SWP	X1NO2200	PSF Compressors, Blowers & Fans Procure	Procurement of Compressors, Blowers and Fans to include: • Air Operated Double Diaphragm pumps • Centrifugal pumps • Mag Drive pumps • Metering pumps • Gear Drive Pumps • Sump Pumps • Process Skids (BOA)	Method of Accomplishment for this scope of work (PSF Compressors, Blowers & Fans) will be completed based on execution, maintenance and closure of procurement contract awards. struction installation	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Compressors, Blowers & Fans)
1.07.02.09.45.80.20.21.25	SWP	X1NO2500	PSF Material Handling\Processing Procure	Procurement of Material Handling and Processing to include: • Conveyors • Cranes-Hoists-Trolleys • Feeders • Screens • Crusher/Mills	Method of Accomplishment for this scope of work (PSF Material Handling/Processing Procure) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Material Handling/Processing Procure)
1.07.02.09.45.80.20.21.26	SWP	X1NO2600	PSF Water Treatment (Skids) Procurement	PSF Procurement of Water Treatment (skids) to include: • Make-up/Condensate Demin • Potable Water • Raw Water • Waste Water • Chemical Feed Water	Method of Accomplishment for this scope of work (PSF Water Treatment (Skids) Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Water Treatment (Skids) Procurement)
1.07.02.09.45.80.20.21.27	SWP	X1NO2700	PSF Other Mechanical Procurement	PSF Procurement of other mechanical equipment to include: • Packaged Units/Modules • Filters, Mixers, Blenders • Centrifuge • HVAC EQ and DUCTWORK • Elevators and Lifts • Stacks and Chimneys • Misc. Field Material	Method of Accomplishment for this scope of work (PSF Other Mechanical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Other Mechanical Procurement)
1.07.02.09.45.80.20.21.28	SWP	X1NO2800	PSF Electrical Procurement	PSF Procurement of electrical equipment to include:• Transformers• Bus Duct• Power Distribution (MCCs)• Generators• Transfer Switches• Relays• Lighting• Heat Trace• Grounding• Cathotic Protection• Comms and Security	Method of Accomplishment for this scope of work (PSF Electrical Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Electrical Procurement)
1.07.02.09.45.80.20.21.38	SWP	X1NO3800	PSF Gloveboxes Procurement	PSF Procurement of gloveboxes and associated equipment to include: • Casting • Process equipment • Specialty Items (samplers, process reactors, pack-repack, etc.) • Turnkey Packaged Systems	Method of Accomplishment for this scope of work (PSF Gloveboxes Procurement) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Gloveboxes Procurement)

1.07.02.09.45.80.20.41.10	SWP	X1SOS300	PSF System Testing	BNI labor resources to support discrete tasks associated with System Testing of the engineered systems and sub-systems associated with the PSF.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.20.41.20	SWP	X1SOS400	PSF Integrated Testing	BNI labor resources to support discrete tasks associated with Integrated Testing of the engineered systems and sub-systems associated with the PSF.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.20.41.30	SWP	X1SOS200	PSF Component Testing	BNI labor resources to support discrete tasks associated with Component Testing of the engineered systems and sub-systems associated with the PSF.	BNI Startup Direct Hire & BNI Construction Craft	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.20.41.40	SWP	X1SOS100	PSF Testing Turnover	BNI labor resources to support discrete tasks associated with Testing Turnover of the engineered systems and sub-systems associated with the PSF.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.20.41.50	SWP	X1SOS500	PSF Owner Turnover	BNI labor resources to support discrete tasks associated with Owner Turnover of the engineered systems and sub-systems associated with the PSF.	BNI Startup Direct Hire	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.50.11.10	SWP	X8ES0000	PSF Structural	Engineering labor resources required to support discrete PSF Structural design tasks such as Confirmed Design deliverables, MR preparation, Technical Evaluation, conform technical evaluations, fabrication drawings and close-out.	Engineering Labor Resources	Through completion of Subproject
1.07.02.09.45.80.50.11.15	SWP	X8EA0000	PSF Architectural	PSF Architectural Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.20	SWP	X8EM0000	PSF Mechanical	PSF Mechanical Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.25	SWP	X8EL0000	PSF MET	PSF MET Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.30	SWP	X8EP0000	PSF Piping	PSF Piping Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.35	SWP	X8EZ0000	PSF Fire Protection	PSF Fire Protection Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.40	SWP	X8EH0000	PSF HVAC	PSF HVAC Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.50	SWP	X8ED0000	PSF Plant Design	Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.55	SWP	X8EE0000	PSF Electrical	PSF Electrical Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.60	SWP	X8EI0000	PSF I&C	PSF I&C Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.65	SWP	X8EN0000	PSF SAFETY BASIS NCS	PSF NCS Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject

1.07.02.09.45.80.50.11.70	SWP	X8EF0000	PSF SAFETY BASIS - Facility Safety	PSF Facility Safety Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.75	SWP	X8EX0000	PSF Glovebox	PSF Glovebox Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.11.80	SWP	X8EY0000	PSF Vendor Document Review	PSF Vendor Document Review Engineering labor resources required to support discrete design tasks such as Confirmed Design deliverables, Vendor reviews, and close-out.	UPF direct-hire staff	Through completion of Subproject
1.07.02.09.45.80.50.21.11	SWP	X8NO1100	PSF Building Sitework	PSF Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Grading • Sewage/Drainage • Manholes/Boxes • Wells, Soil Tests • Piles and Caissons • Mass Fill	Method of Accomplishment for this scope of work (PSF Building Sitework) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Building Sitework)
1.07.02.09.45.80.50.21.12	SWP	X8NO1200	PSF Building Concrete	PSF Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Anchor bolts • Embeds • Rebar • Concrete	Method of Accomplishment for this scope of work (PSF Building Concrete) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Building Concrete)
1.07.02.09.45.80.50.21.13	SWP	X8NO1300	PSF Building Structural & Misc. Steel	PSF Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including: • Misc. Steel • Structural Steel • Racks-Grids-Platforms	Method of Accomplishment for this scope of work (PSF Building Structural & Misc. Steel) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Building Structural & Misc. Steel)
1.07.02.09.45.80.50.21.14	SWP	X8NO1400	PSF Building Architectural	Procurement of civil/architectural/structural bulk materials for all UPF direct-hire work, including:• Architectural Specialties (non-paint, non-coating items)• Furnishing• Masonry• Plumbing• Security Gates/Doors/Barriers/Ports• Office/Medical/Lab equipment, storage and carts	Method of Accomplishment for this scope of work (PSF Building Architectural) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Building Architectural)
1.07.02.09.45.80.50.21.15	SWP	X8NO1500	PSF Piping Bulks	Procurement of bulk piping associated commodities for UPF direct-hire work. Includes: • Pipe Hangers • Miscellaneous Flex Hose • Manual Valves • Spooled Pipe • Bulk Pipe (non-spooled) • Plumbing Pipe (LB and SB) • Plumbing fixtures • Flange Bolts and Flange Insulation Kits • Specialty Pipe Fittings	Method of Accomplishment for this scope of work (PSF Piping) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Piping)

1.07.02.09.45.80.50.21.16	SWP	X8NO1600	PSF Electrical Bulks	Procurement of bulk electrical commodities for UPF direct-hire work, including: • Distribution Panel Boards • Security Alarms • Electrical Bulk Components: Building Electrical Wire, Fiber Cable and Lighting Fixtures, Distribution Transformers, Communications - ENS/PA, Cathodic Protection, Local Control Stations/Switches, Conduit Supports, Cable Tray Supports, Control Cable, Classified and Unclassified Telecommunications Bulks, Junction boxes, light switches, receptacles, DC batteries and chargers.	Method of Accomplishment for this scope of work (PSF Electrical Bulks) will be completed based on execution, maintenance and closure of procurement contract awards.	Receipt and acceptance of bulk materials
1.07.02.09.45.80.50.21.17	SWP	X8NO1700	PSF Instrumentation Bulks	Procurement of equipment for instrumentation and controls:• Facility Monitoring and Control System (PLC/Controls)• Security Equipment Hardware • Misc. Sensing & Measuring Instruments• Control Valves (on/Off)• Tube Fittings & Valves• Conductivity Transmitters• Gas Detectors• Head Type DP Flow Meters• Level Switches• Level Transmitters - Radar• Magnetic Flow Meters• Pressure Gauges• Pressure Regulators• Pressure Transmitters• Solenoid Valves• Temperature Transmitters• Temperature Gauges	Method of Accomplishment for this scope of work (PSF Instrumentation) will be completed based on execution, maintenance and closure of procurement contract awards.	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF Instrumentation)
1.07.02.09.45.80.50.51.05	SWP	X8MA0500	PSF Field Non-Manual Project Mgmt	Field Non-Manual Project management professional services specifically for support of PSF.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF)
1.07.02.09.45.80.50.51.10	SWP	X8CS1000	PSF Field Non-Manual Construction	Field Non-Manual Construction professional services specifically for support of PSF.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF)
1.07.02.09.45.80.50.51.20	SWP	X8640000	PSF Field Non-Manual Resident Eng	Field Non-Manual Resident Engineers professional services specifically for support of PSF.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF)
1.07.02.09.45.80.50.51.25	SWP	X8E10000	PSF Field Non-Manual Eng Supervision	Field Non-Manual Eng Supervision professional services specifically for support of PSF.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF)
1.07.02.09.45.80.50.51.35	SWP	X8PC3500	PSF Field Non-Manual Project Controls	Field Non-Manual Project Controls professional services specifically for support of PSF.	UPF direct-hire staff	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work (PSF)
1.07.02.09.45.80.50.61.10	SWP	X8RP1000	PSF Production	CNS Production labor resources to support discrete tasks associated with Production activities required for Readiness Preparation, Certification and Confirmation within PSF in the PSF subproject.	CNS Production Direct Hires and BOA resources	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.
1.07.02.09.45.80.50.61.20	SWP	O8RM2000	PSF Maintenance	CNS Maintenance labor resources to support discrete tasks associated with Maintenance activities required for Readiness Preparation and Certification within the PSF subproject.	CNS Maintenance Direct Hires and BOA	Key Milestones / Deliverables are outlined in the project Integrated Master Schedule (IMS) and will be completed in support of completion for this scope of work.

APPENDIX F: Articles of Negotiated Agreeement

The following articles shall serve as the documented negotiated agreement between the National Nuclear Security Administration (herein referred to as the "Government"), and Consolidated Nuclear Security, LLC (herein referred to as the "Contractor").

Therefore, in consideration of the mutual promises set forth hereinafter, the Government and the Contractor mutually agree as follows:

Article 1. DMP Settlement

1.1 $10,604,249 of available DMP schedule fee is deferred until the Contractor can demonstrate to Government satisfaction that there has been no impact to the project related to CD-2/3 approval or by completing the project by August 31, 2025 (Project Completion Date).
1.2 In order to convert DMP deferred fee to earned fee prior to the Project Completion Date, the Contractor shall clearly demonstrate to the Government that schedule health has been restored and regained 33 working days. The Contractor may request the Government review schedule health on a FY year basis. The Government reserves the right to seek Contractor repayment of provisionally drawn schedule fee if schedule health is not restored to the Government's satisfaction, but no sooner than January 2019.

Article 2. Provisional Fee

2.1 For the purpose of calculating FY18 Provisional Fee, the Provisional Fee Liquidation Model will use the Contractor's March data. The Government will re-evaluate the Provisional Fee Liquidation Model after the negotiated baseline is approved.
2.2 Planned Liquidation through September 30, 2018: 14.273% / $19,242,036.
2.3 Actual Performance to be Liquidated: 4.858% / $6,548,895.
2.4 Unliquidated Balance (Carryover): 9.415% / $12,693,141.

Article 3. Deferred Fee Pool

3.1 Any unearned milestone fee captured in a Deferred Fee Pool will be available to be earned until all Contractor Schedule Reserve is exhausted (August 31, 2025).
3.2 The Government will evaluate the Deferred Fee Pool on an FY basis.
3.3 The Contractor may request the Government to consider deferred fee recapture quarterly after the successful completion of successor milestones, i.e., on or before Milestone Completion Date.

APPENDIX G: Government Oversight Model

1 COST OBJECTIVE OVERSIGHT

The Government will oversee Cost Performance by verifying the Contractor's approved baseline data to ensure mission commitments are met with timely, high quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Cost Objective includes, but not limited to:

- Determine if the Contractor is completing authorized scope in accordance with the approved Project Execution Plan and Performance Measurement Baseline; provide timely project reporting.
- Review Contractor implementation of change control management of scope, cost, and schedule in accordance with the applicable threshold tables contained in the approved Project Execution Plans and in accordance with DOE orders and Contractor procedures.
- Manage a deliverable-based Work Breakdown Structure (WBS); cost control accounts, work packages and planning packages consistent with WBS/scope.
- Review of Contractor project management-costing practices ensuring they are consistent with the CNS Earned Value Management System Description.
- Using DOE earned value methods the Government will assess the measurement of work accomplishment, and assess project performance; review CNS performance of variance analysis to identify, correct, and report problems; and evaluate Contractor Estimates at Completion (EAC) on a monthly basis and Contractor comprehensive EAC on an annual basis.
- Expend funds and resources that optimally provide the maximum benefit to the Government; perform proactive and effective subcontract management oversight of subcontractors to ensure effective cost performance controls.
- Maintain the total cost under configuration control to ensure impacts of design evolution on procurement, construction, and commissioning are managed effectively; ensure retroactive adjustments to the baseline are not allowed.
- Produce cost estimates compliant with GAO Best Practices for Developing and Managing Capital Costs Guide and DOE G 413.3-21, Cost Estimating Guide; consider life cycle cost when evaluating proposed project changes.
- Demonstrate effective procurement and subcontract management oversight by driving costs down through competition, making best use of tier two subcontracting opportunities, including maximizing use of fixed price subcontracts and small business participation.
- Establish and maintain a project organization that implements a disciplined conduct of business, EPC commercial best practices, contract management, systems, processes, and procedures in accordance with applicable DOE directives and project requirements.
- Execute quality work products with minimal rework, e.g., designs, specifications, plans, procurement, construction, testing, and commissioning; demonstration of implementation of

an approved DOE O 414.1D Quality Program.

- Identify, quantify and mitigate technical, programmatic, schedule, and cost risks.

2 SCHEDULE OBJECTIVE OVERSIGHT

The Government will oversee Schedule Performance by verifying the Contractor's Integrated Master Schedule (IMS) data to ensure mission commitments are met with timely, high quality deliverables, in accordance with Part III-Section J, Appendix, Appendix N, DOE Order 413.3B and ANSI/EIA-748B, or as defined in Contract. The Government's purview of the Contractor's project management responsibility related to Schedule Objective includes, but not limited to:

- Determine if Contractor is executing scope in accordance with approved Project Execution Plans and Performance Measurement Baseline.
- Review Contractor implementation of change control management of scope, cost, and schedule in accordance with the applicable threshold tables contained in the approved Project Execution Plans and in accordance with DOE orders and Contractor procedures.
- Review of Contractor Project Management scheduling practices ensuring they are consistent with the CNS Earned Value Management System Description.
- Manage an IMS to support project management, implementation and control; include the total scope of baselined work and identify Work Breakdown Structure (WBS) elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measureable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.
- Baseline the IMS and control the content using the project change control board processes; maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones (e.g., critical decisions, major design reviews, and technology, procurement, construction, testing, and commissioning); incorporate labor, material and equipment resources and ensure reasonable/available.
- Manage a credible critical path as determined by the calculated IMS logic network; ensure adequate schedule margin has been included and clearly defined; ensure the number of lags/leads and activity constraints is limited and reasonable. Schedule should include subcontracted scope detail into schedule/critical path to ensure visibility to the Government.
- Hold subcontractors accountable and avoid/mitigate expensing unnecessary funds to make subcontractors compliant with requirements, e.g., additional testing and noncompliance.
- Compliance with all applicable environmental, safety, and security requirements. No formal notices of violation or similar citations from a Federal, State, or local regulatory agency; excellent safety DART/TRC rates; no safeguards and security incidents.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick

resolution, and reported expeditiously to CO/FPD.

- Support Direct Federal Contracts in accordance with approved Project Execution Plans and manage interfaces between parties using Procedure UPO-95-A026.
- Design and engineering products, including material and equipment, shall have the necessary technical and constructability (fabrication) quality to accomplish procurement, fabrication and construction expeditiously without major problems or delays (Title II).
- Review Resident Engineering to support Construction and oversee the design's intent and requirements; Expectation is that exceptions are rare to non-existent without problems or delays (Title III).
- Review performance of pre-award/award/post-award, surveillance/oversight functions to support and/or accomplish requirements. Proper source/destination inspection and acceptance provisions are Government special interest items to ensure receipt of quality subcontracted products/materials.
- Review Contractor's ability to identify, quantify and mitigate project schedule risks; perform schedule risk assessments to predict the probability of completing on time.

APPENDIX C.

TRANSITION PLAN

[Replaced in its entirety by MOD 0015]

Pantex/Y-12 Transition Plan

March 3, 2014

Consolidated Nuclear Security

Enterprise Management

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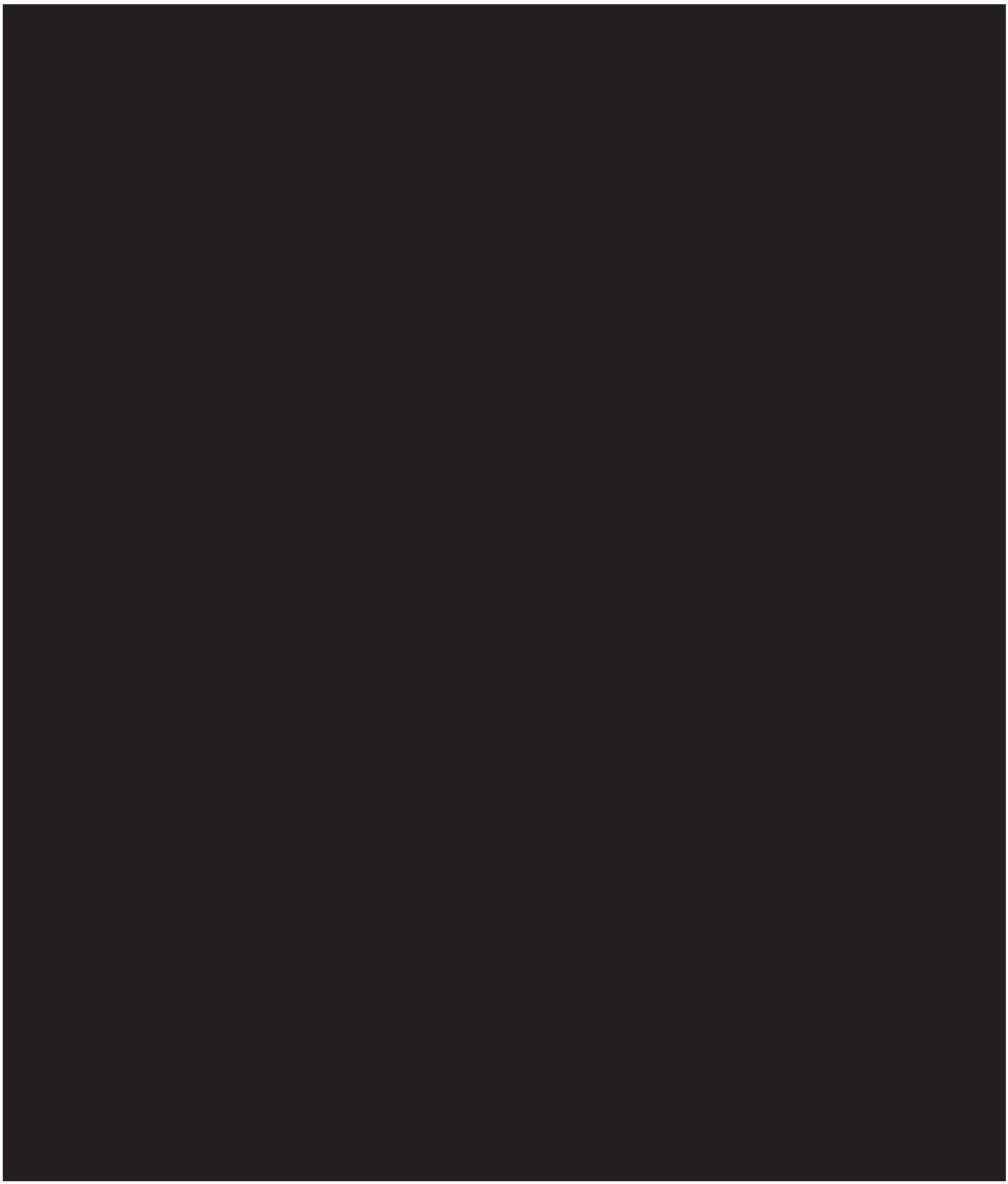




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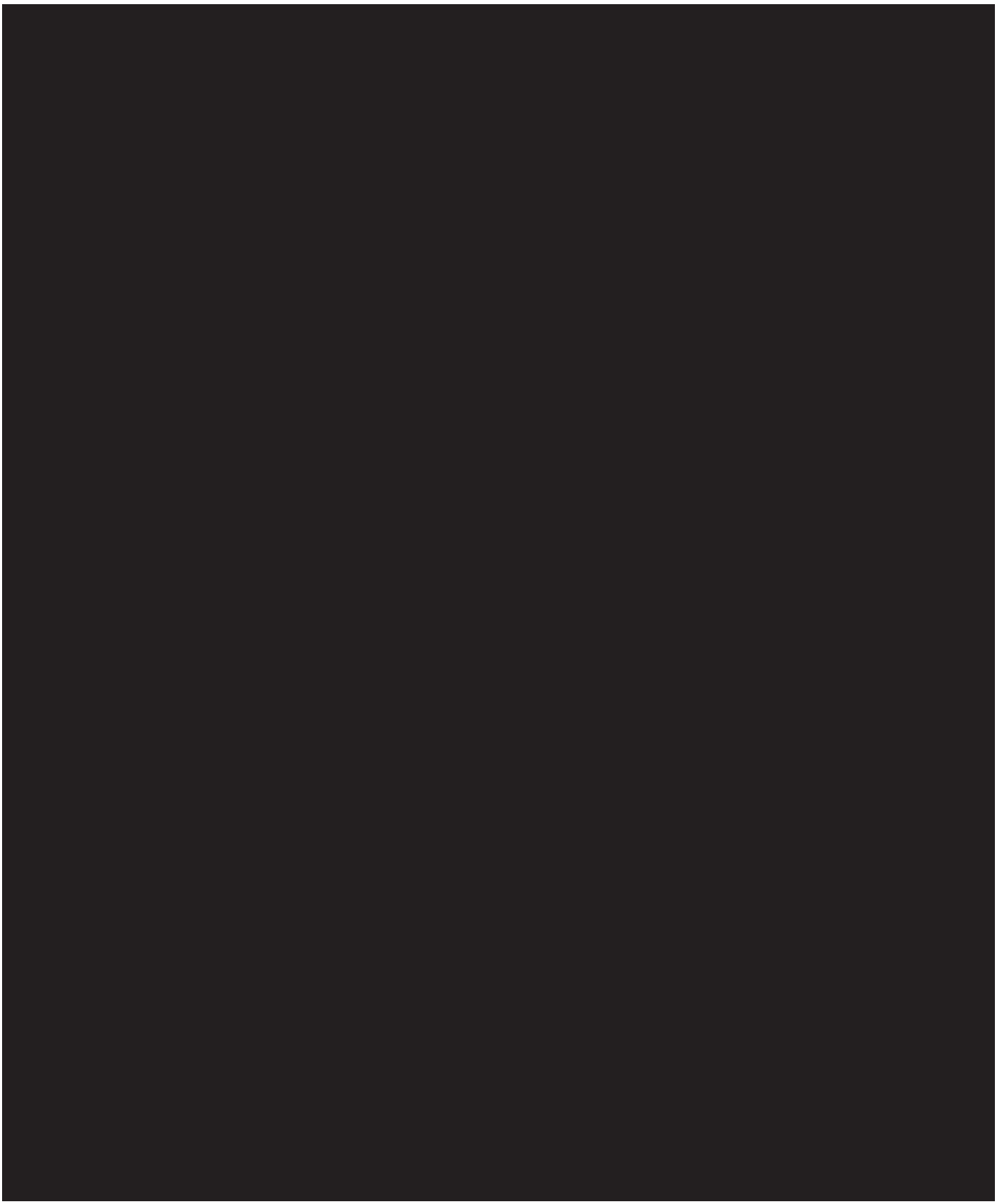
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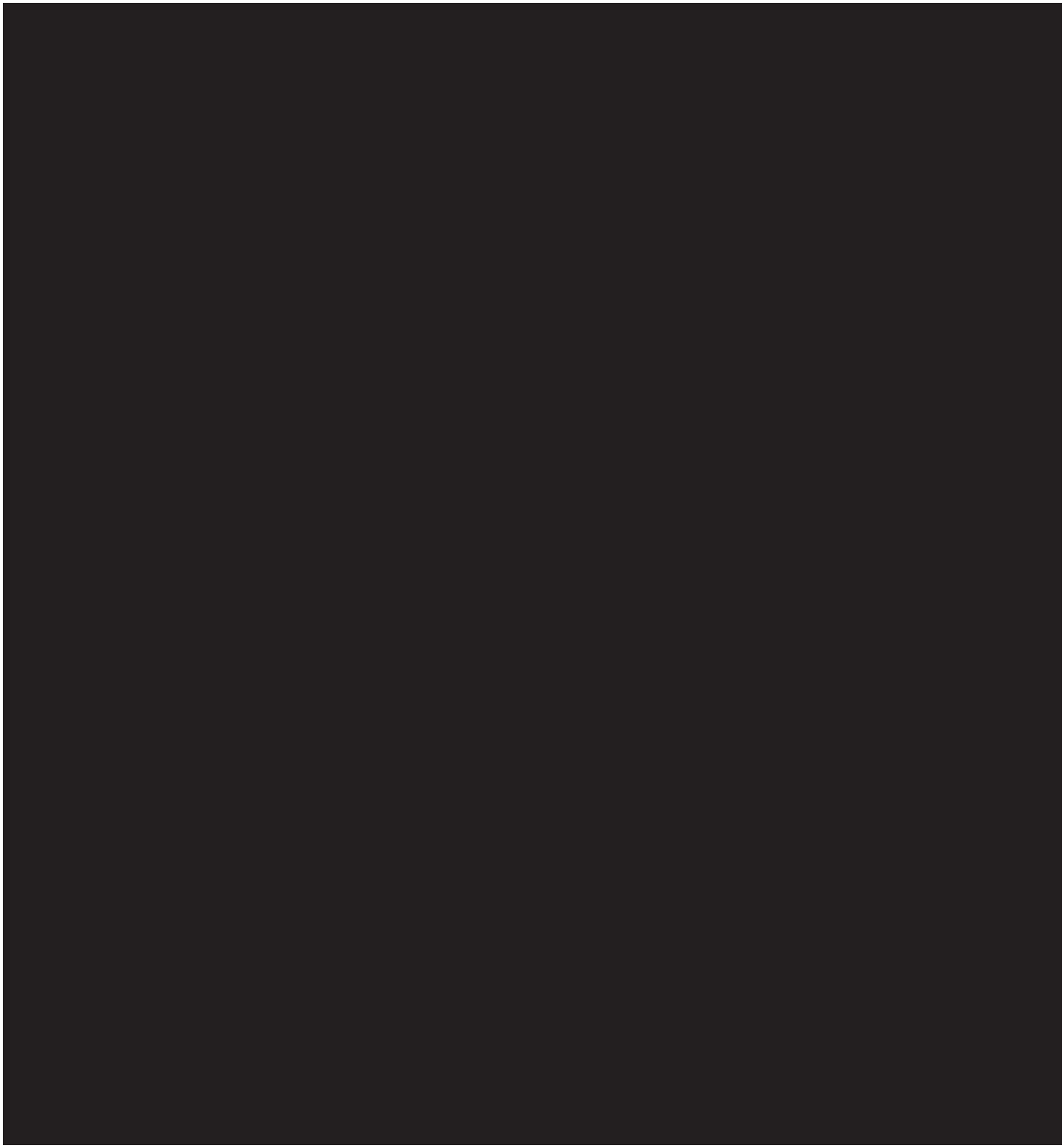


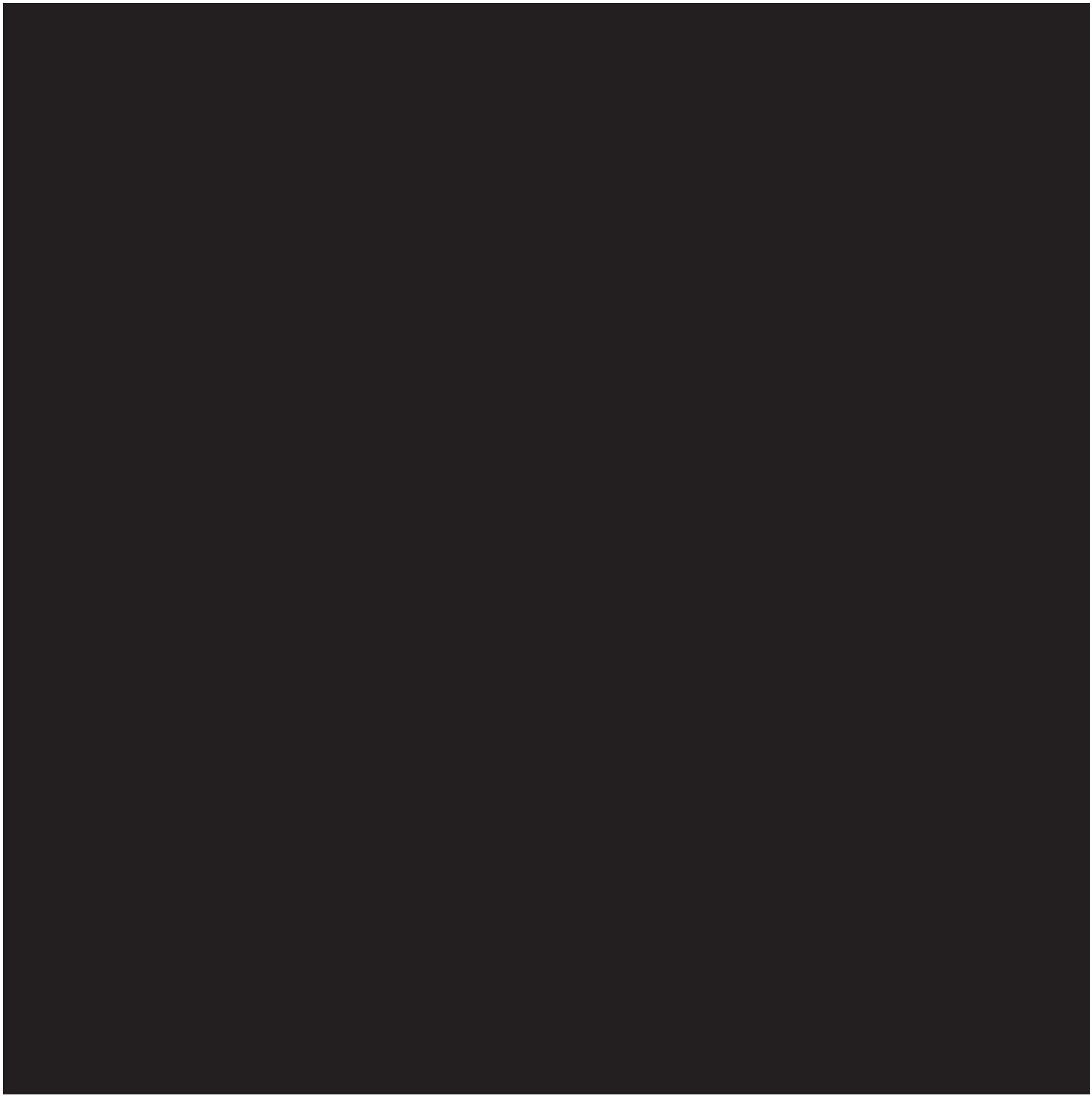


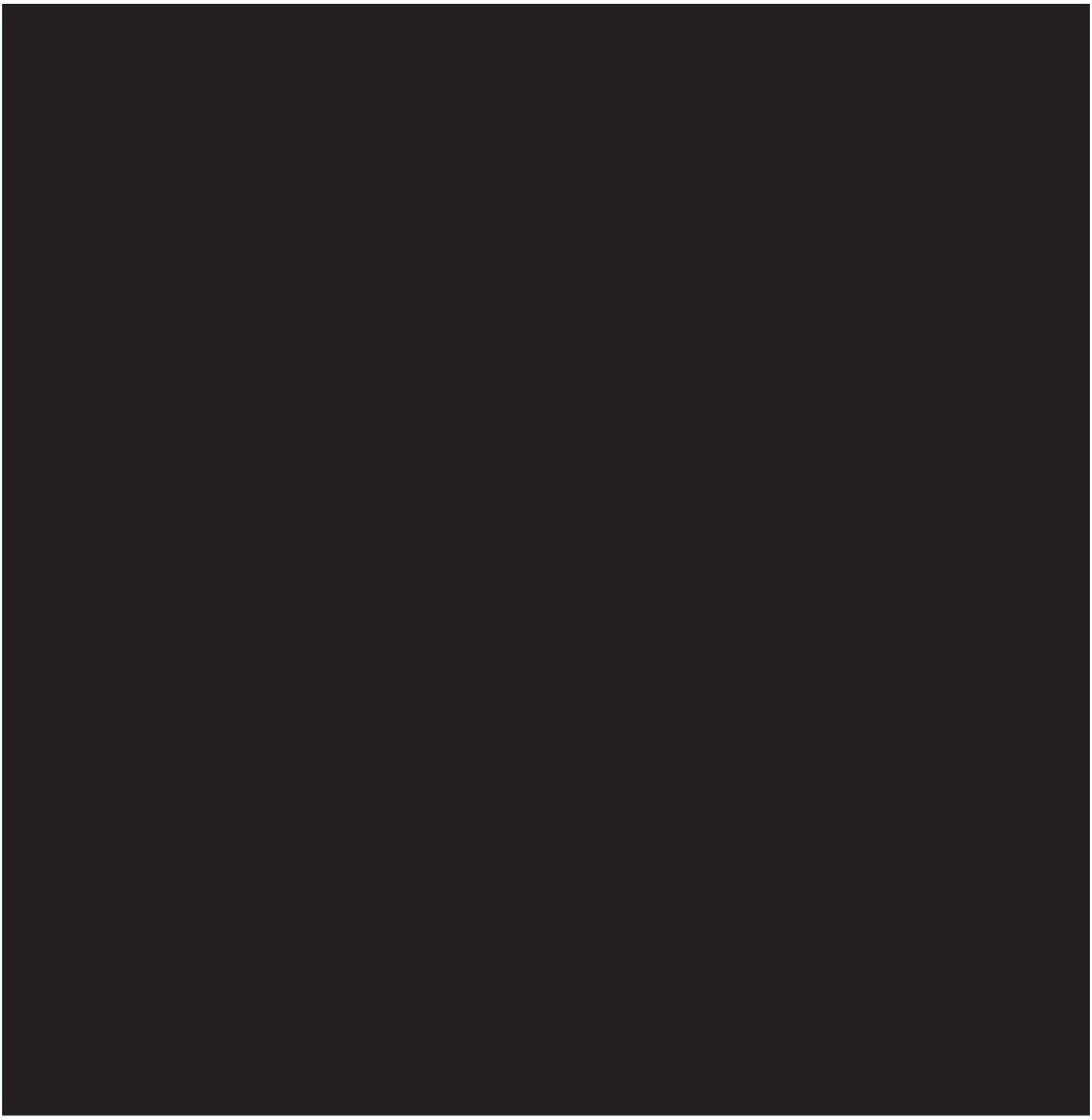




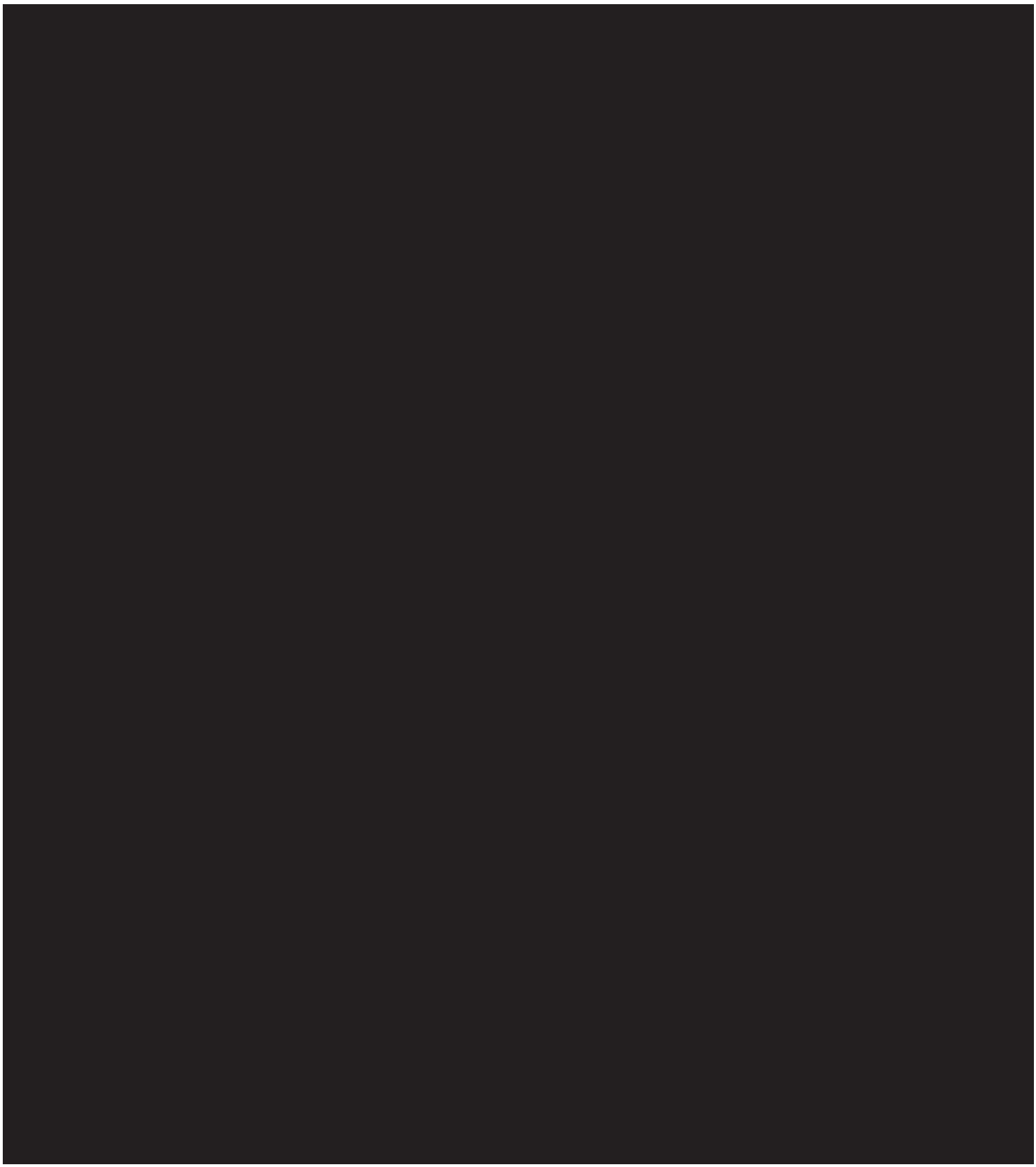








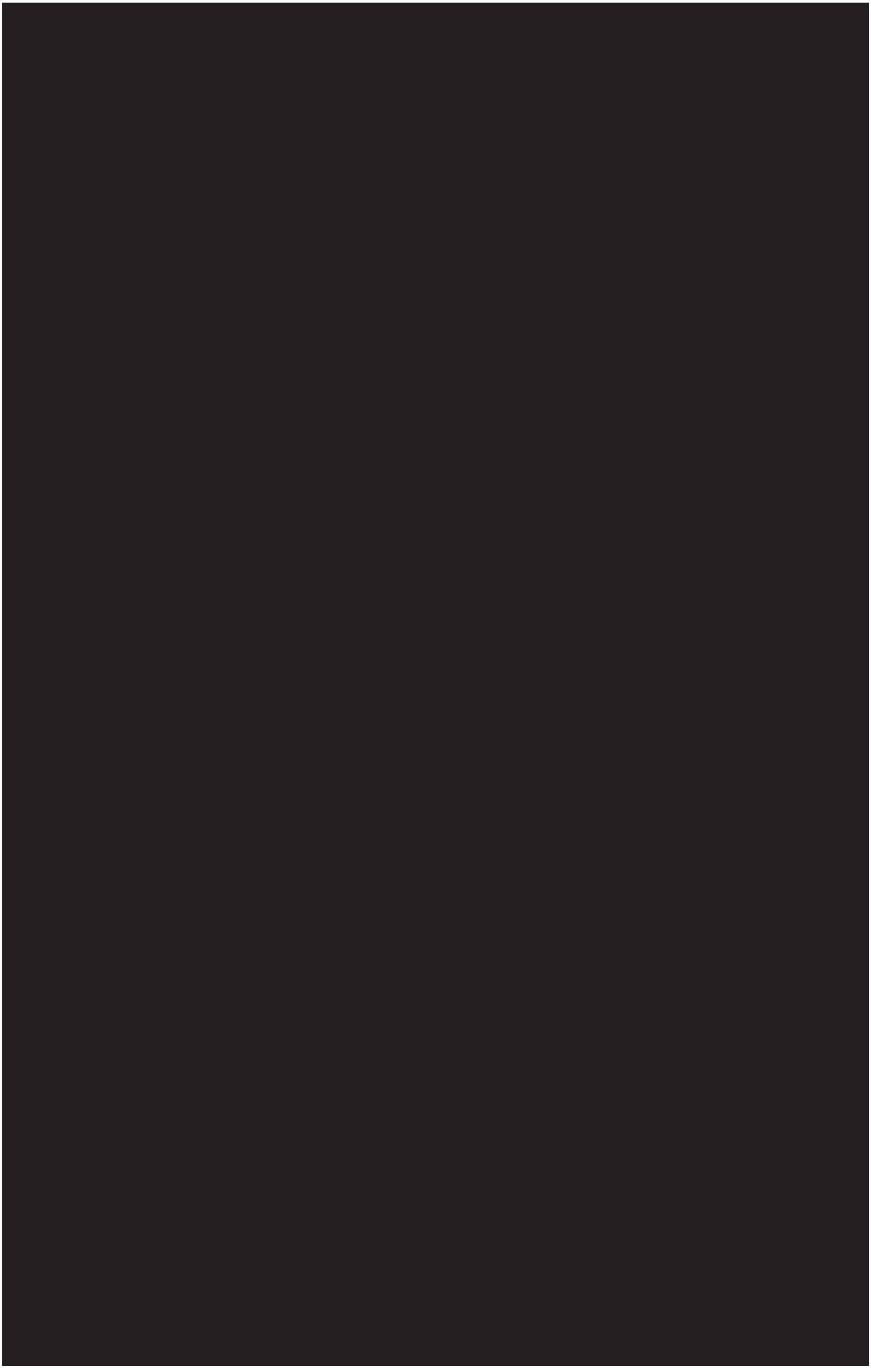


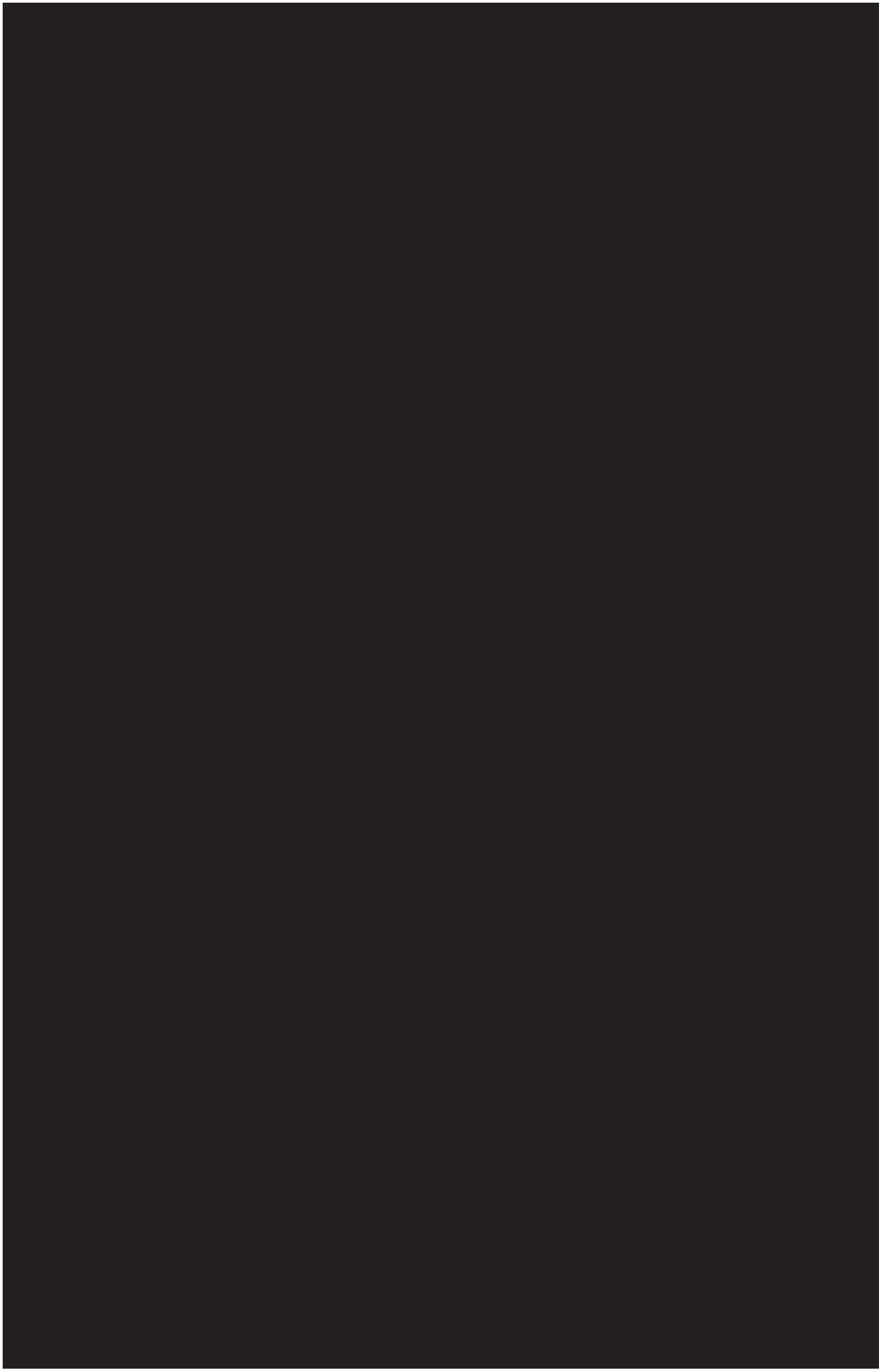


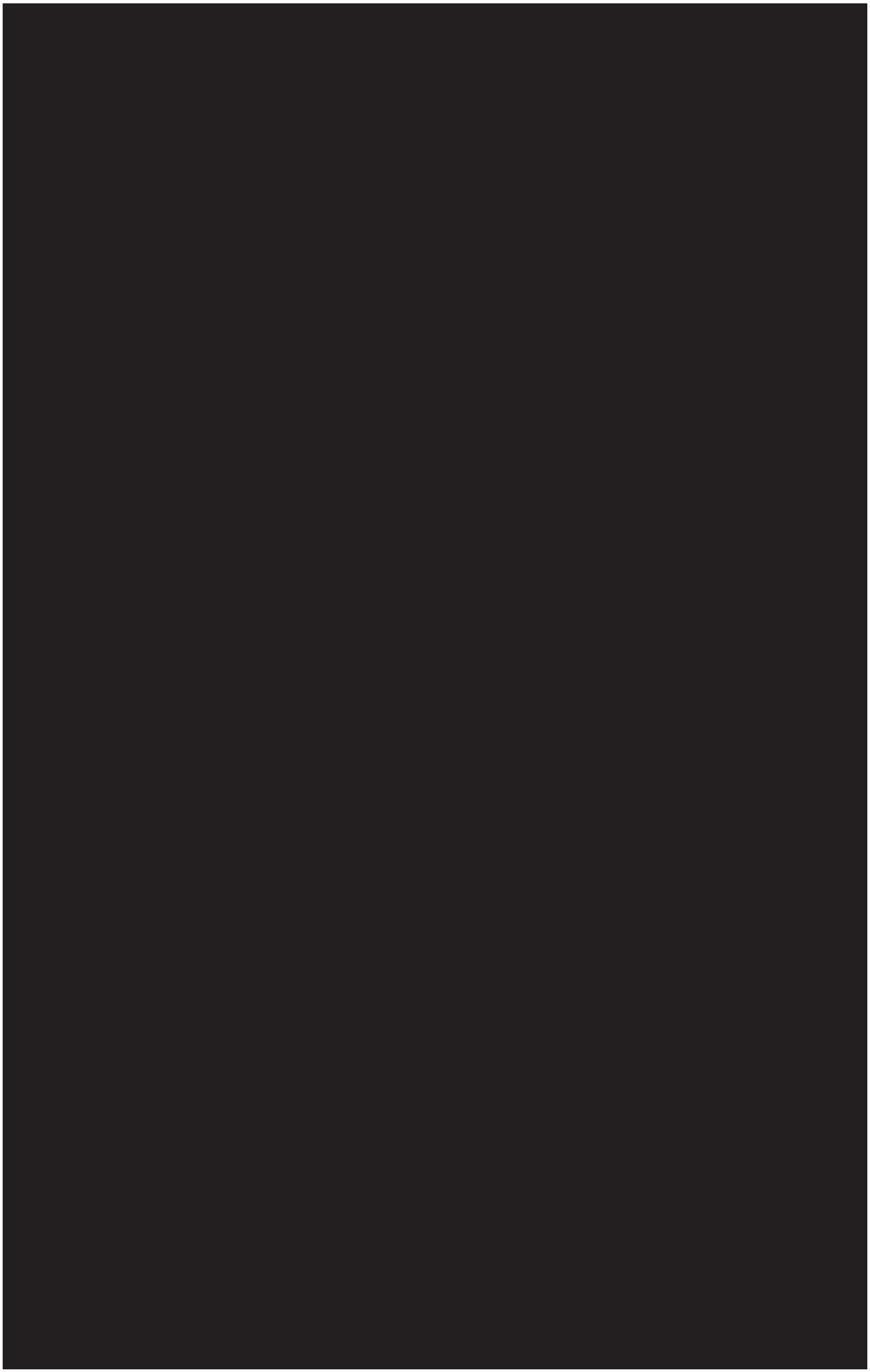


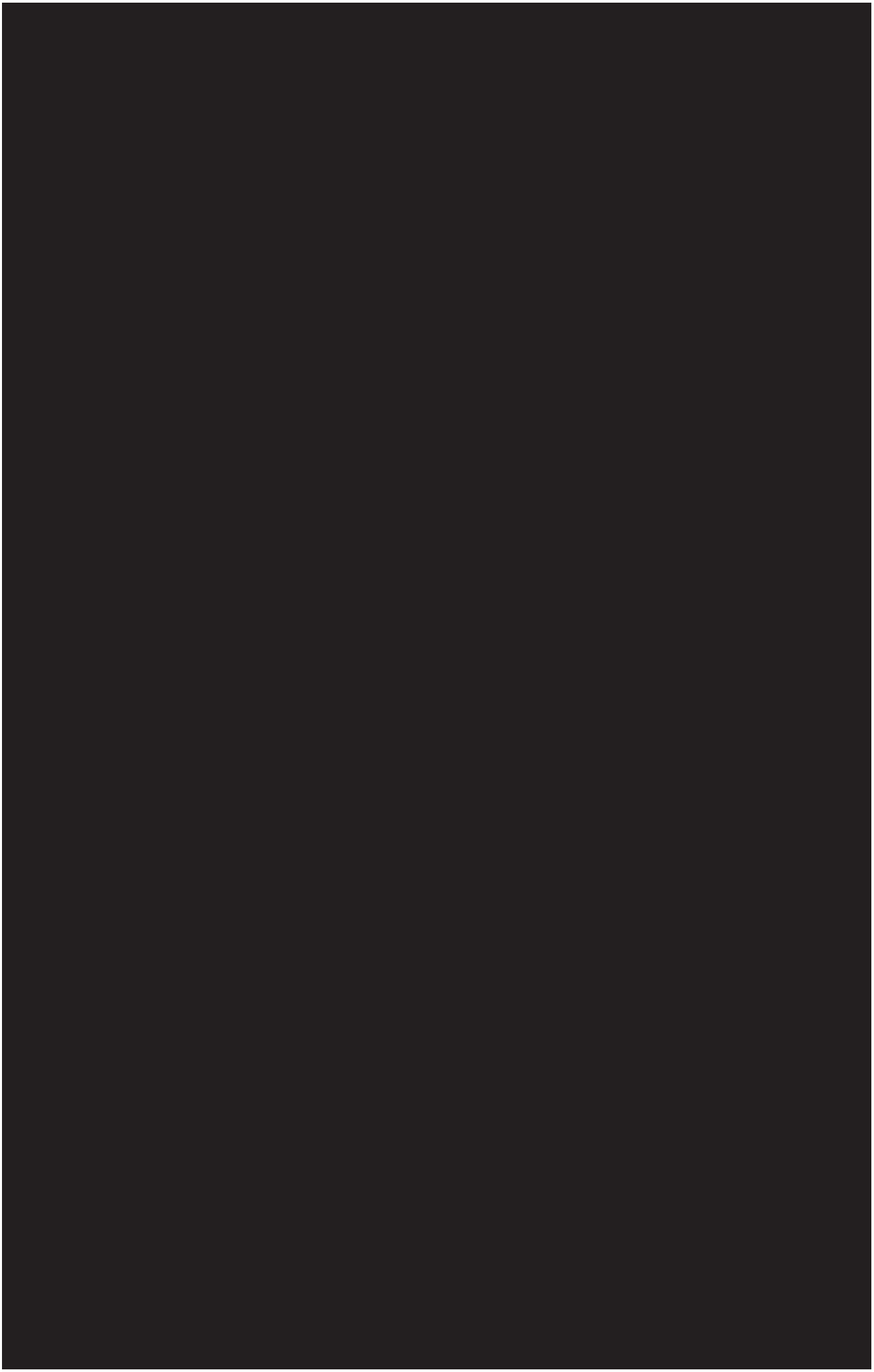
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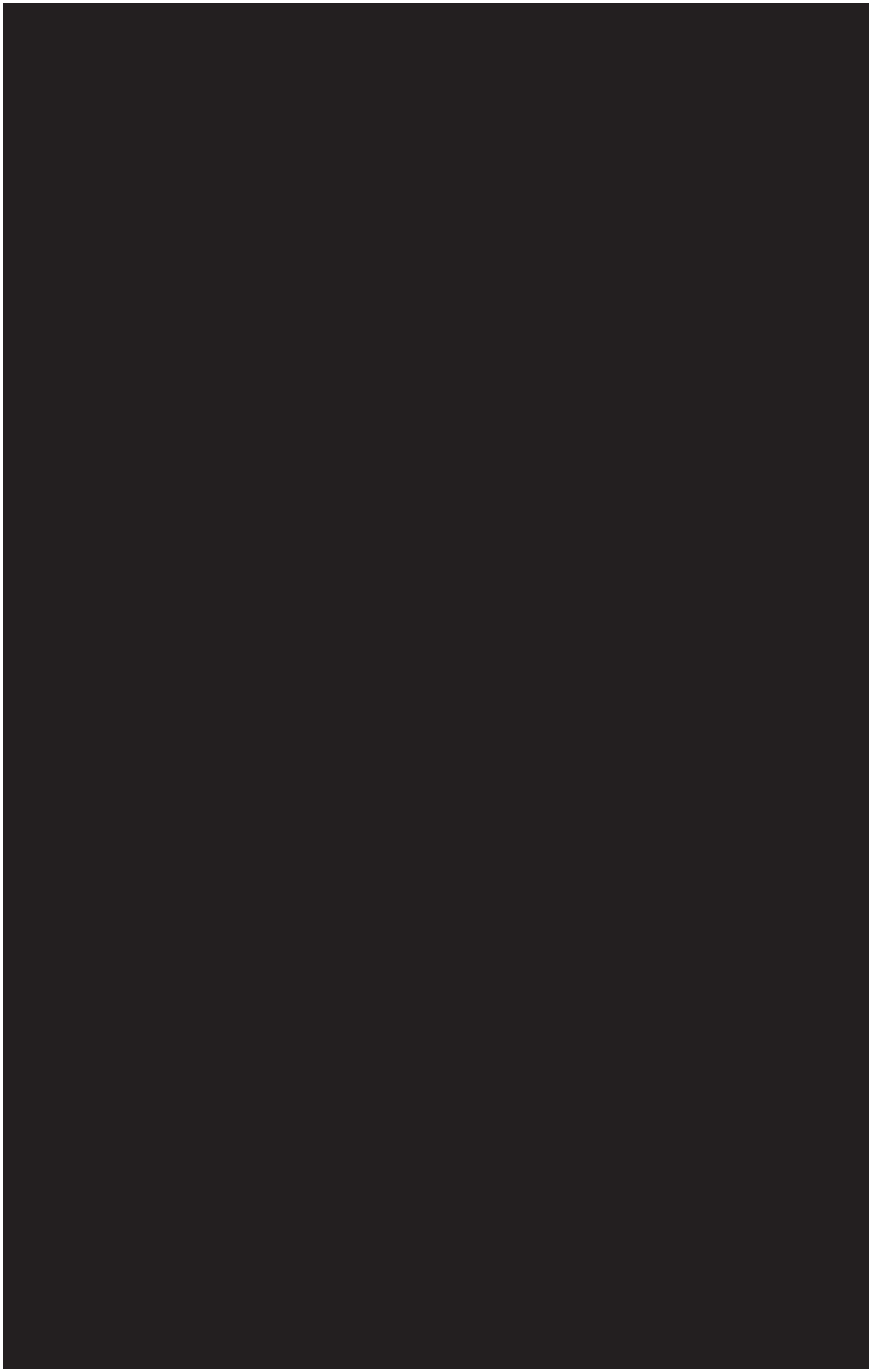
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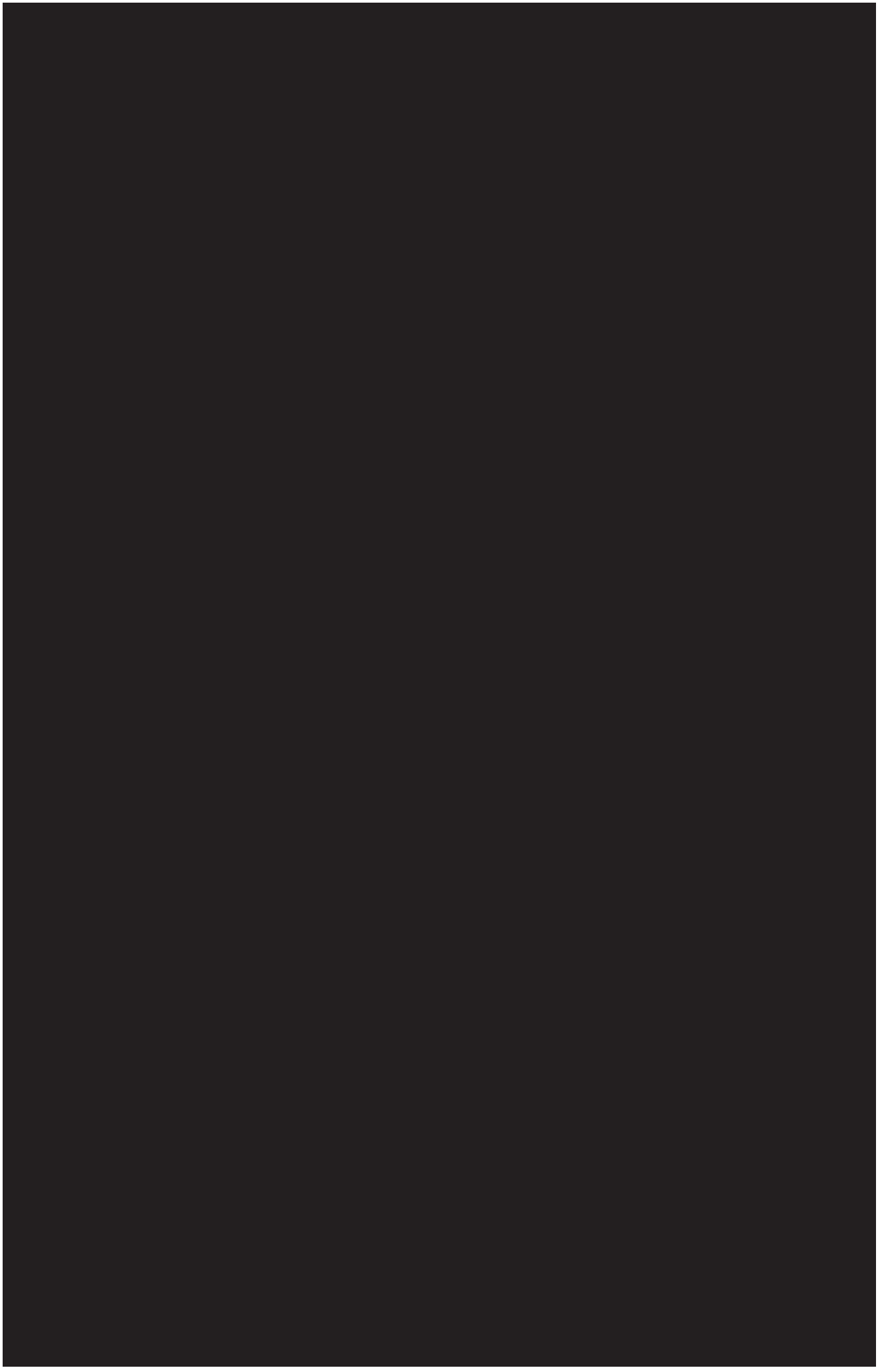


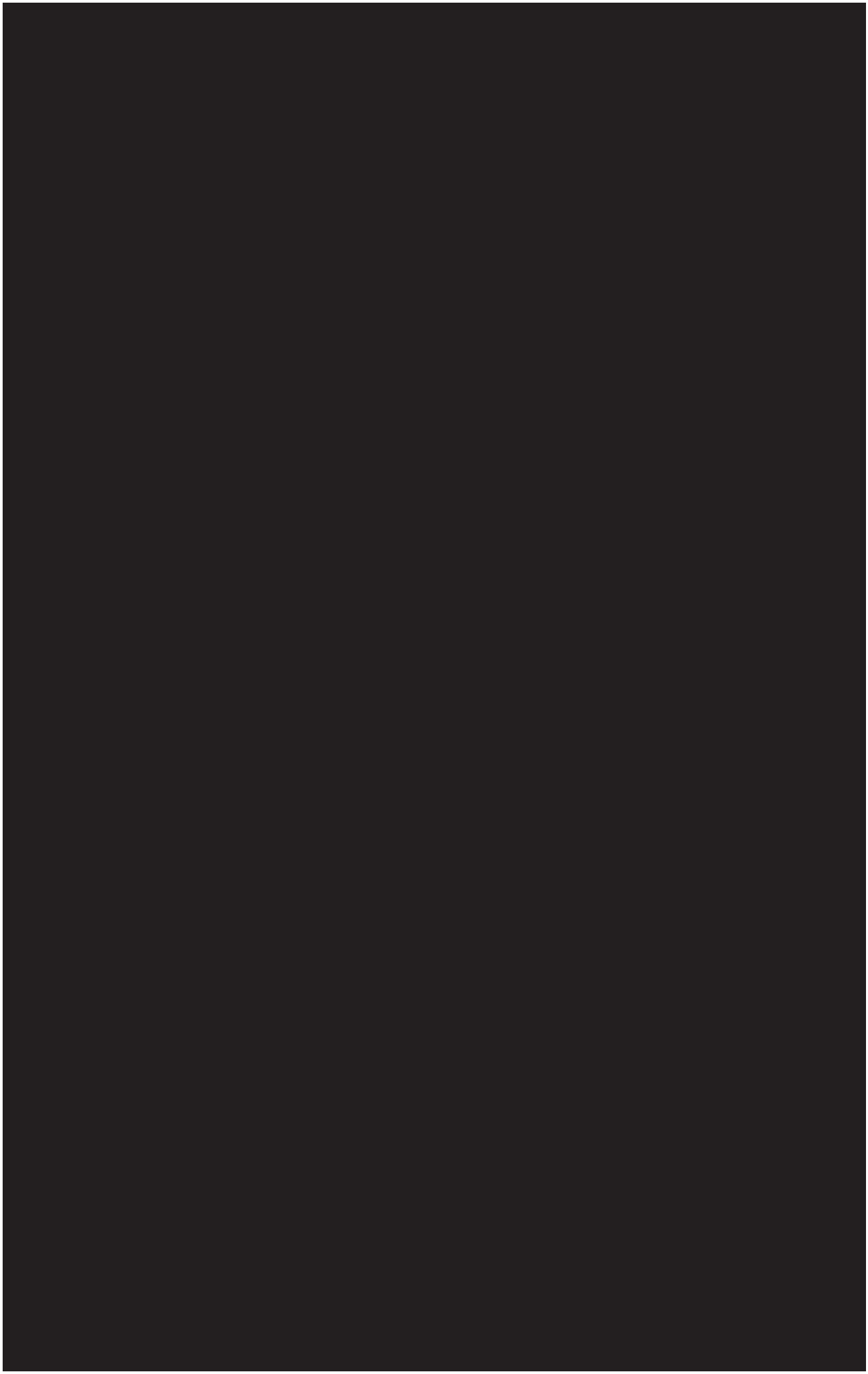


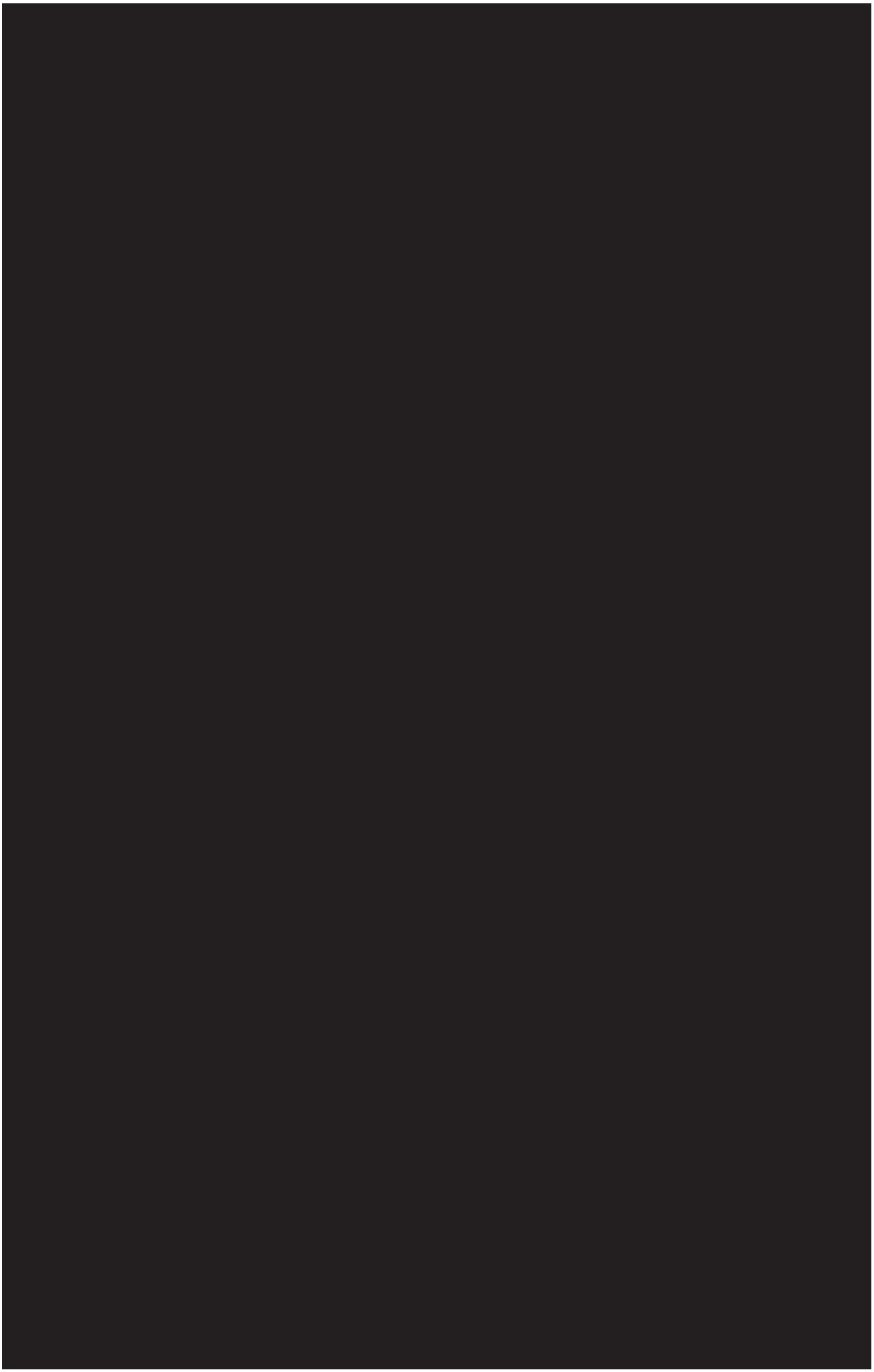


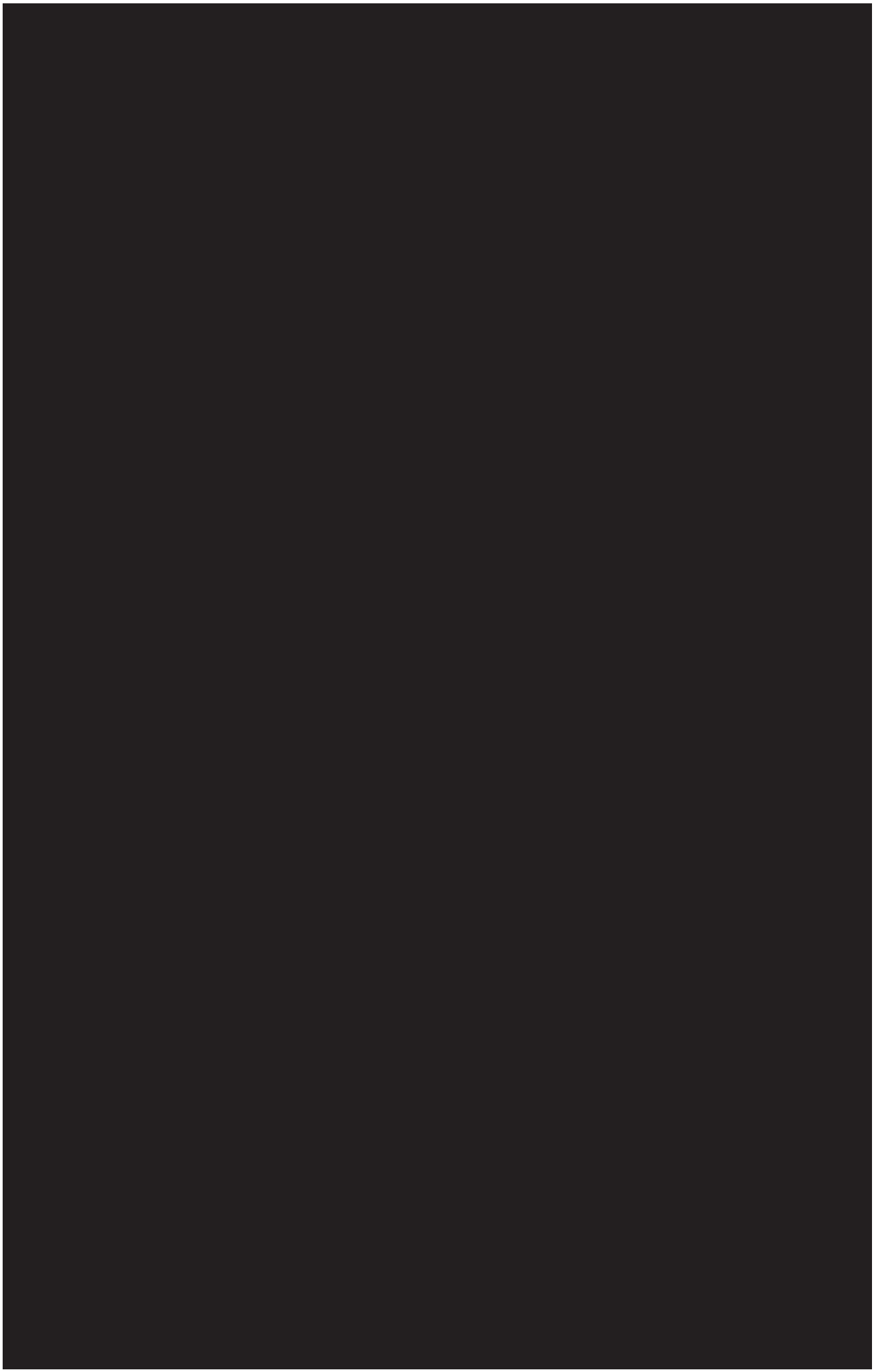


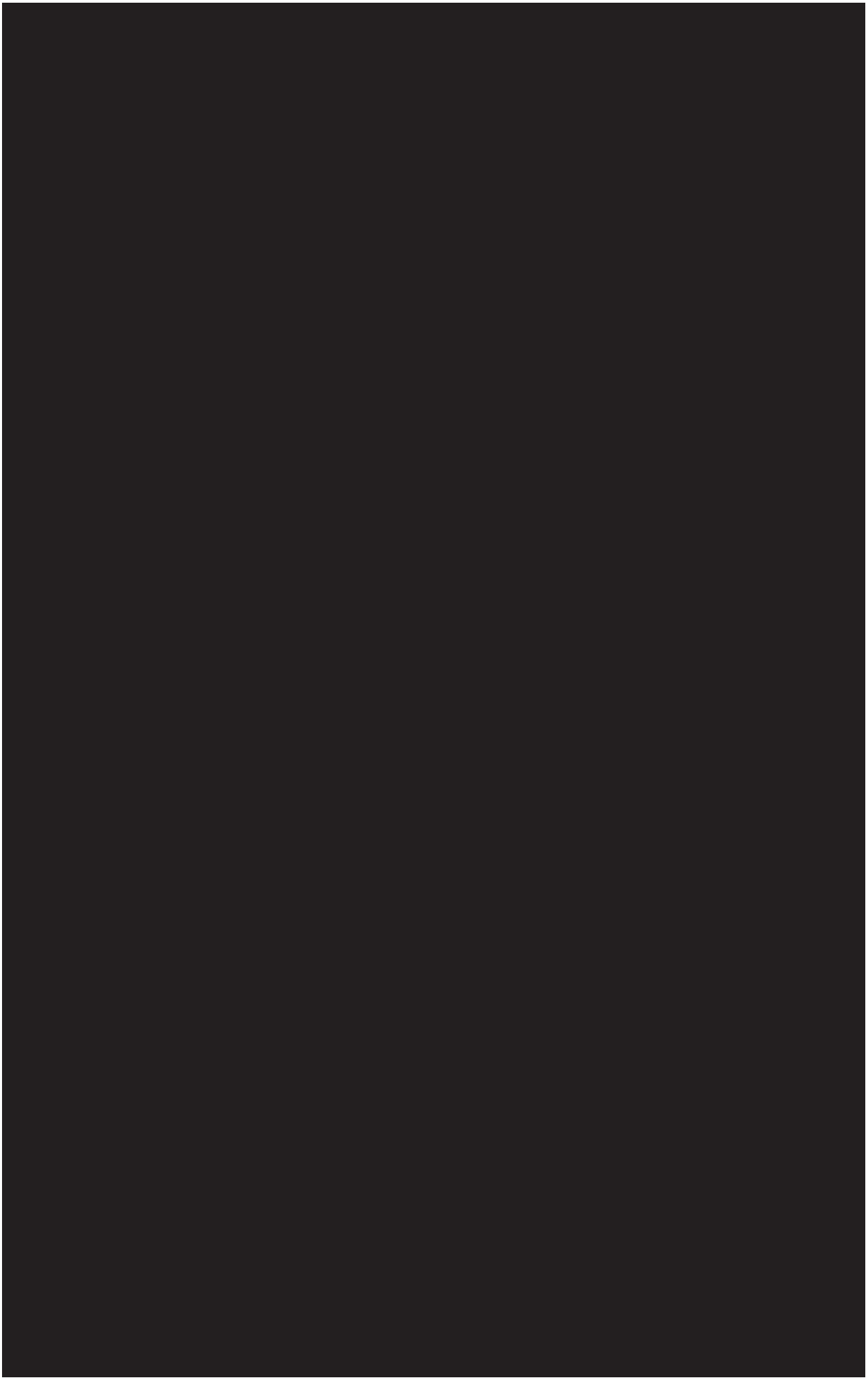


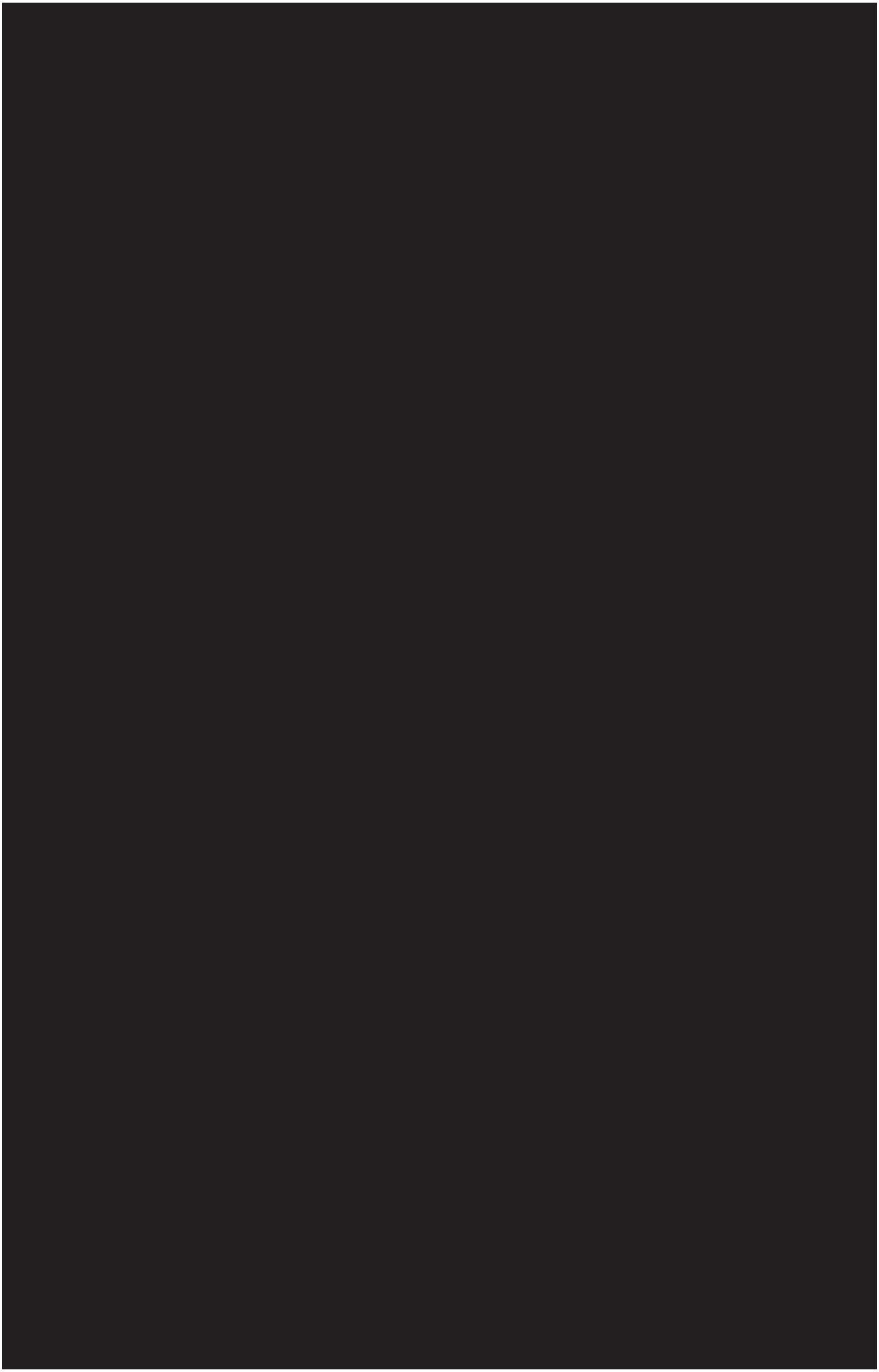
















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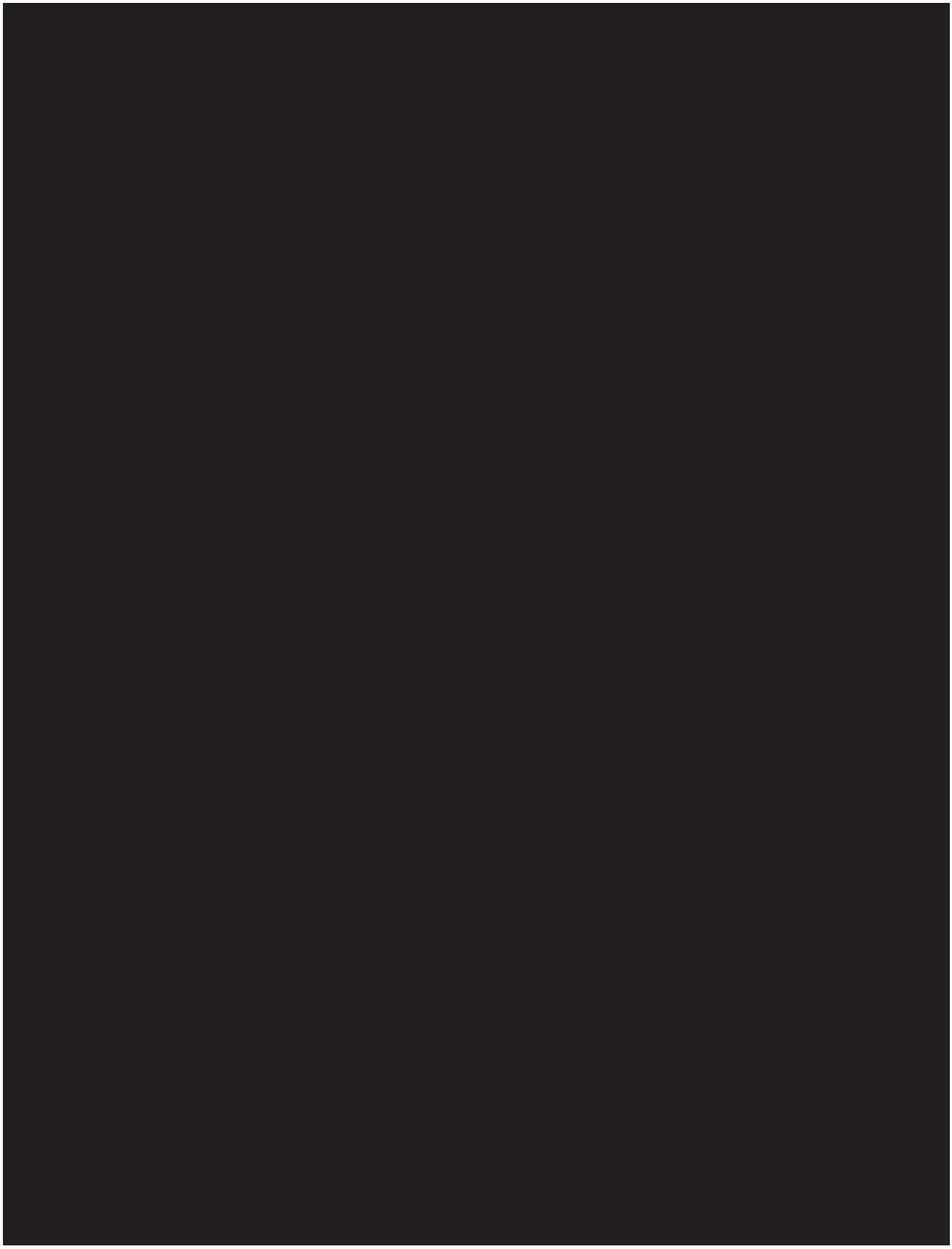




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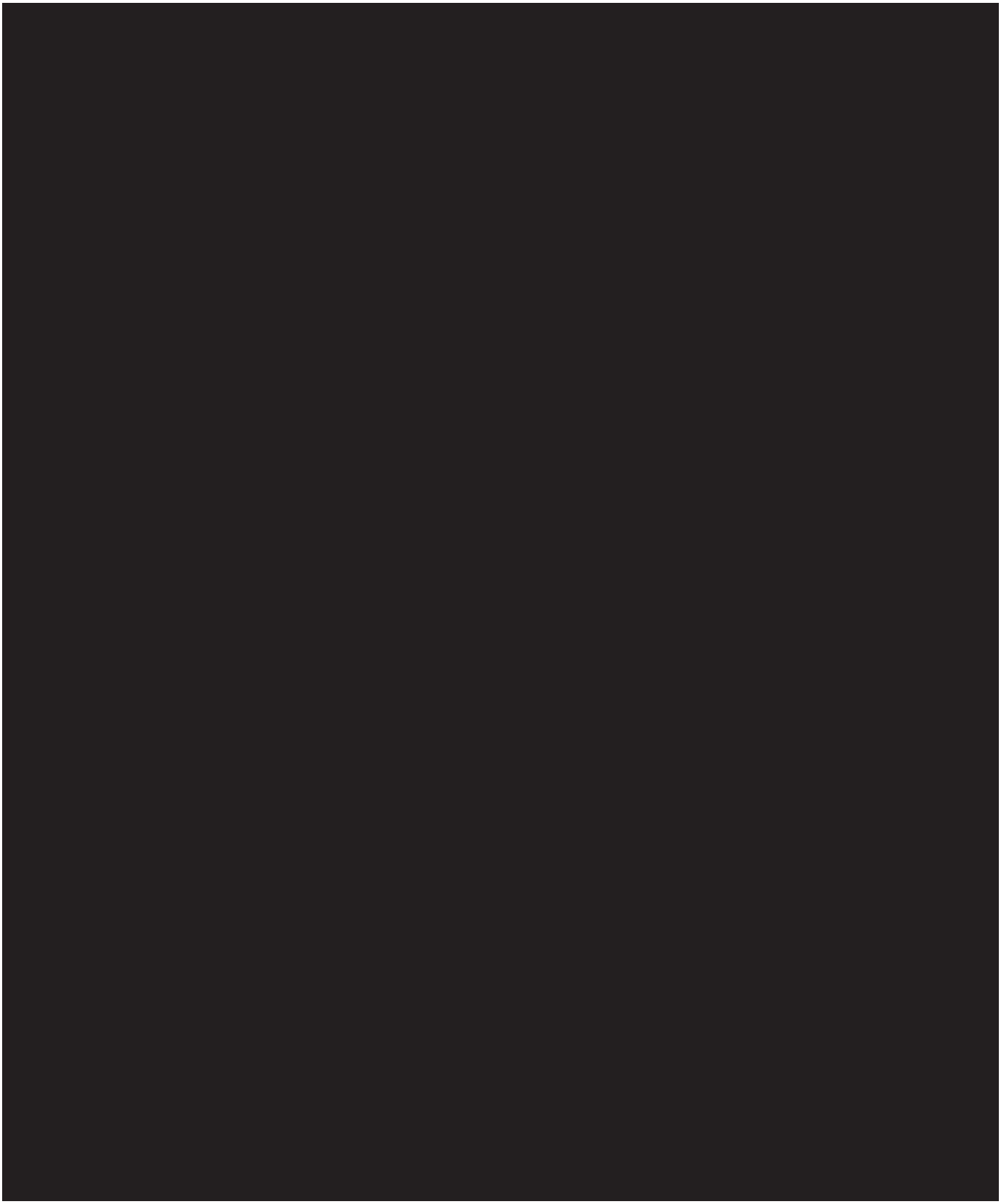
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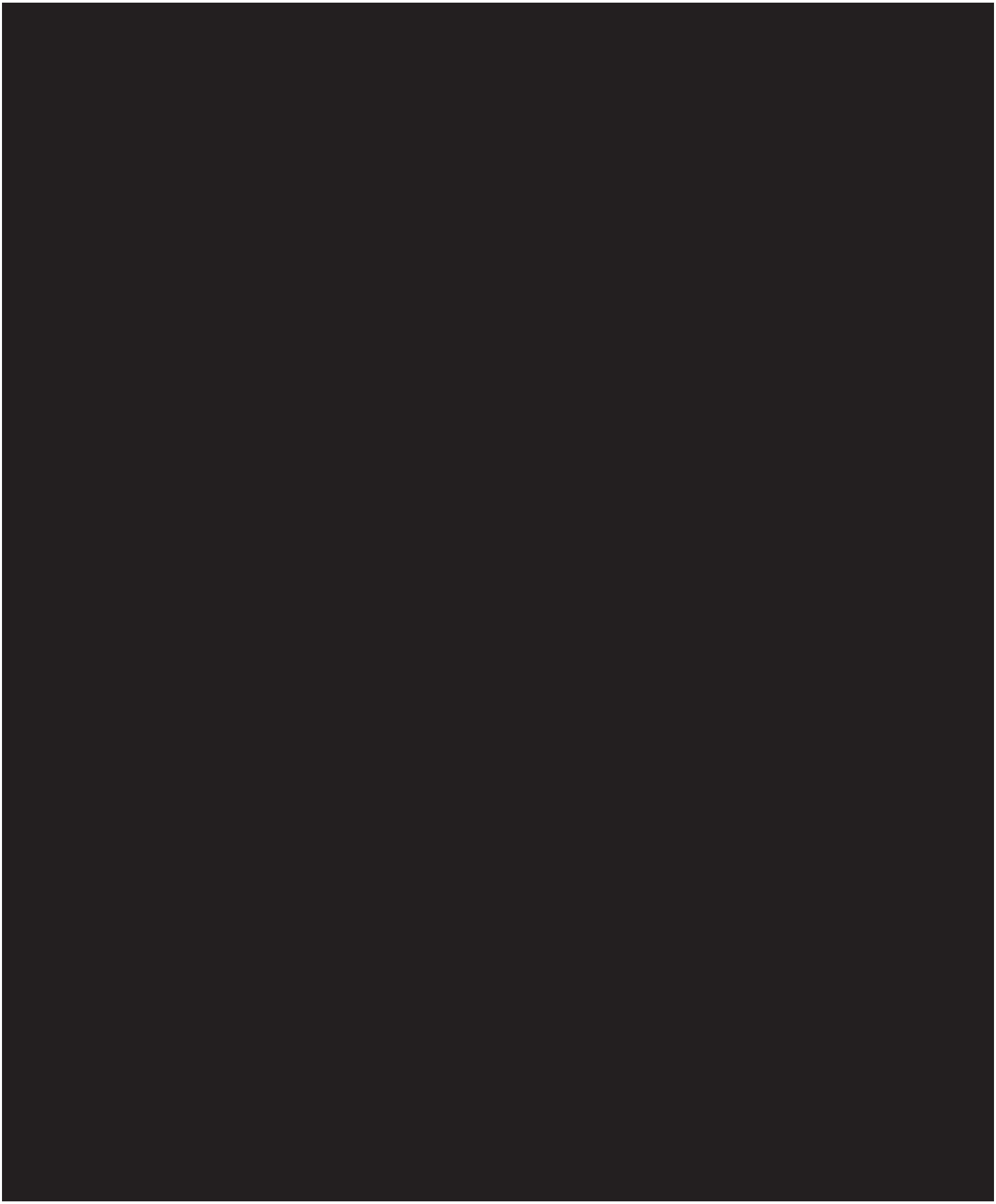


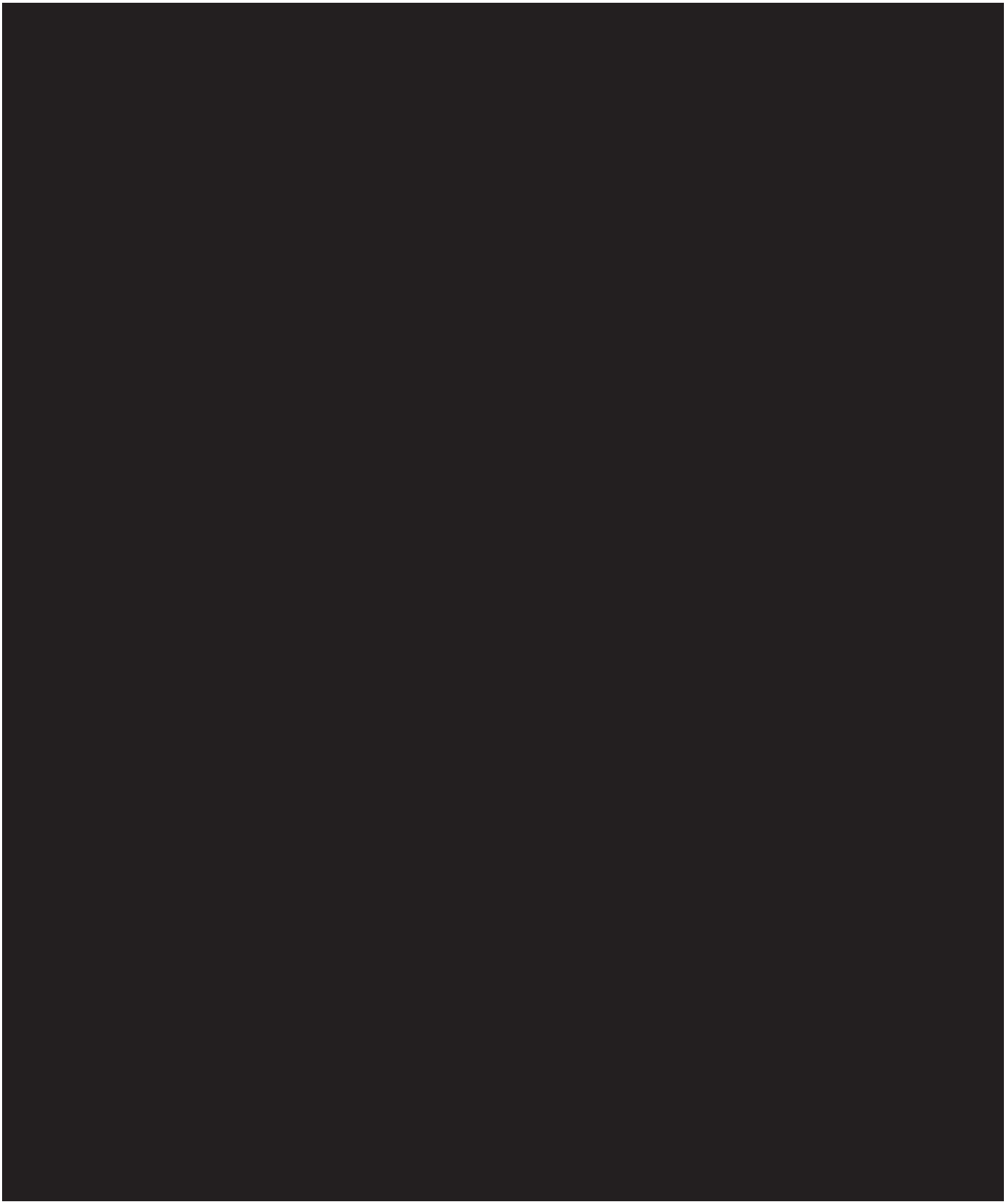
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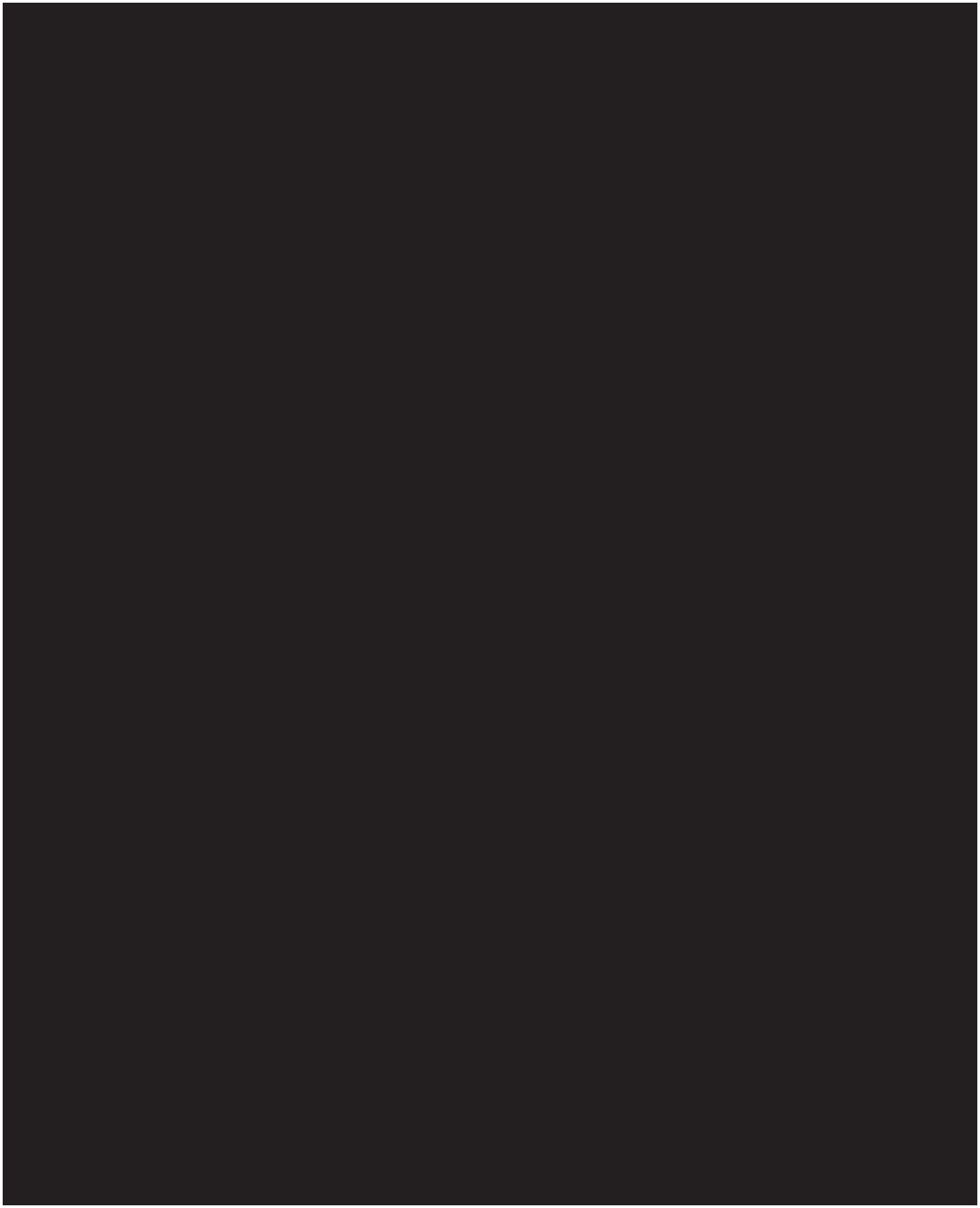
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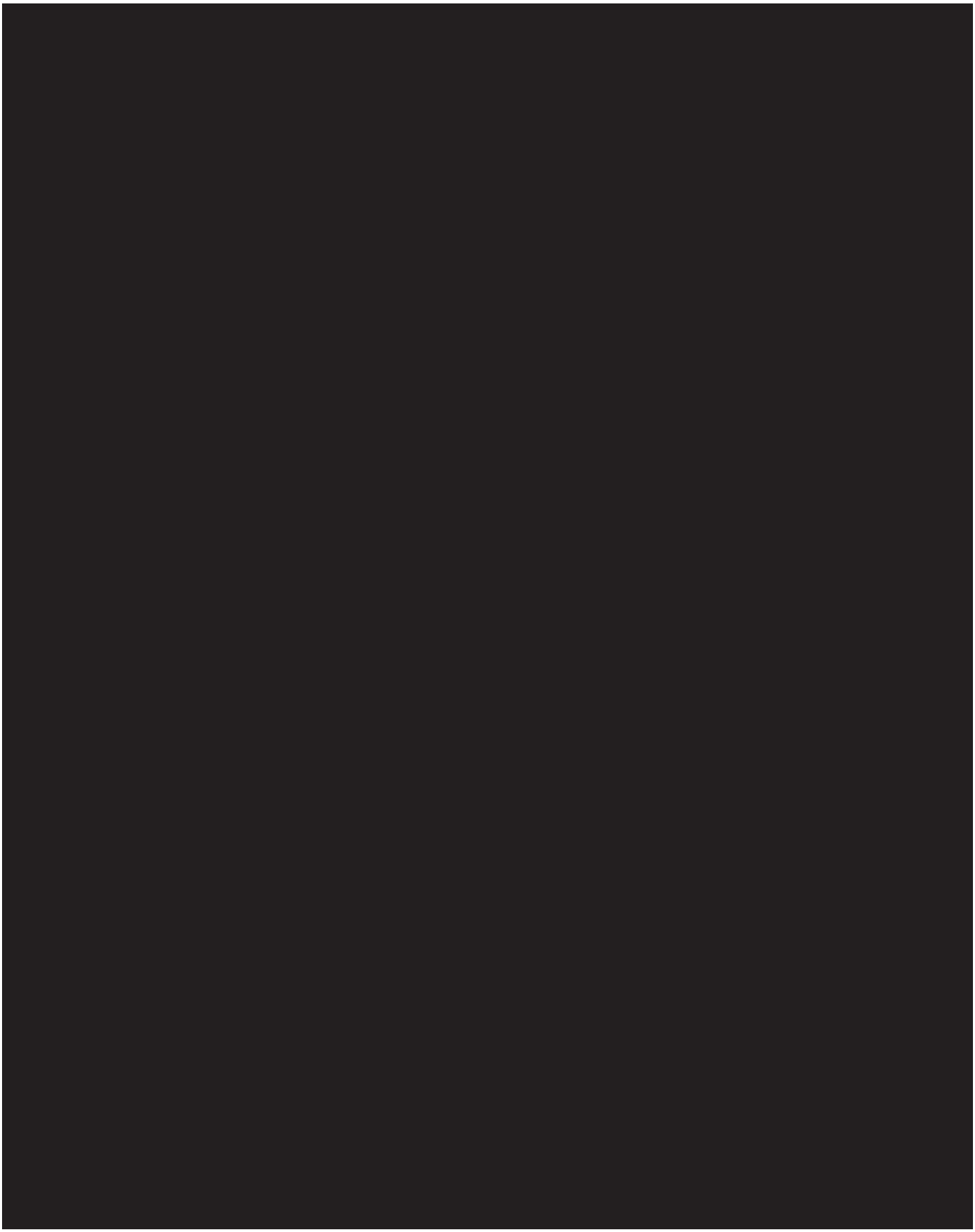
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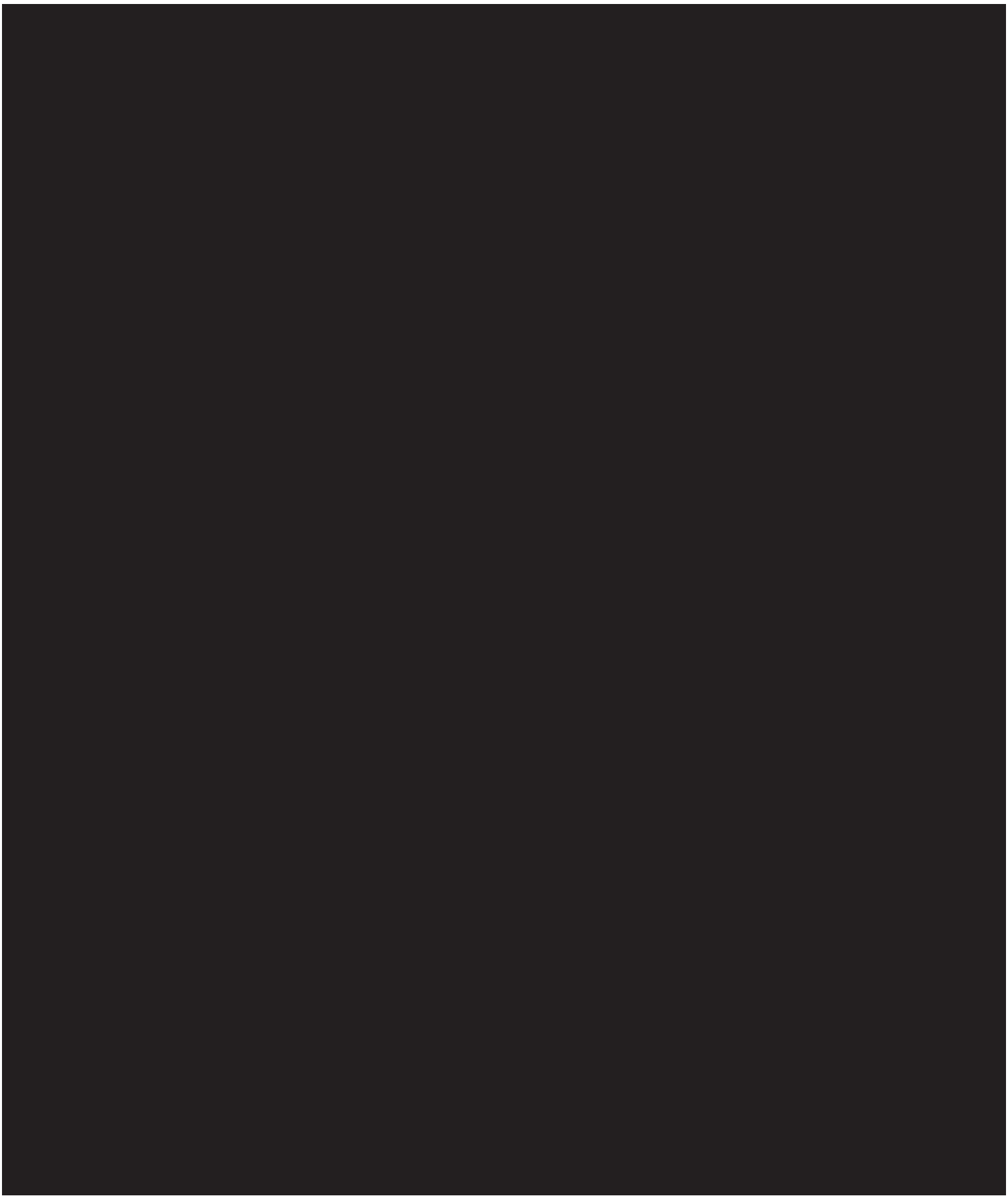


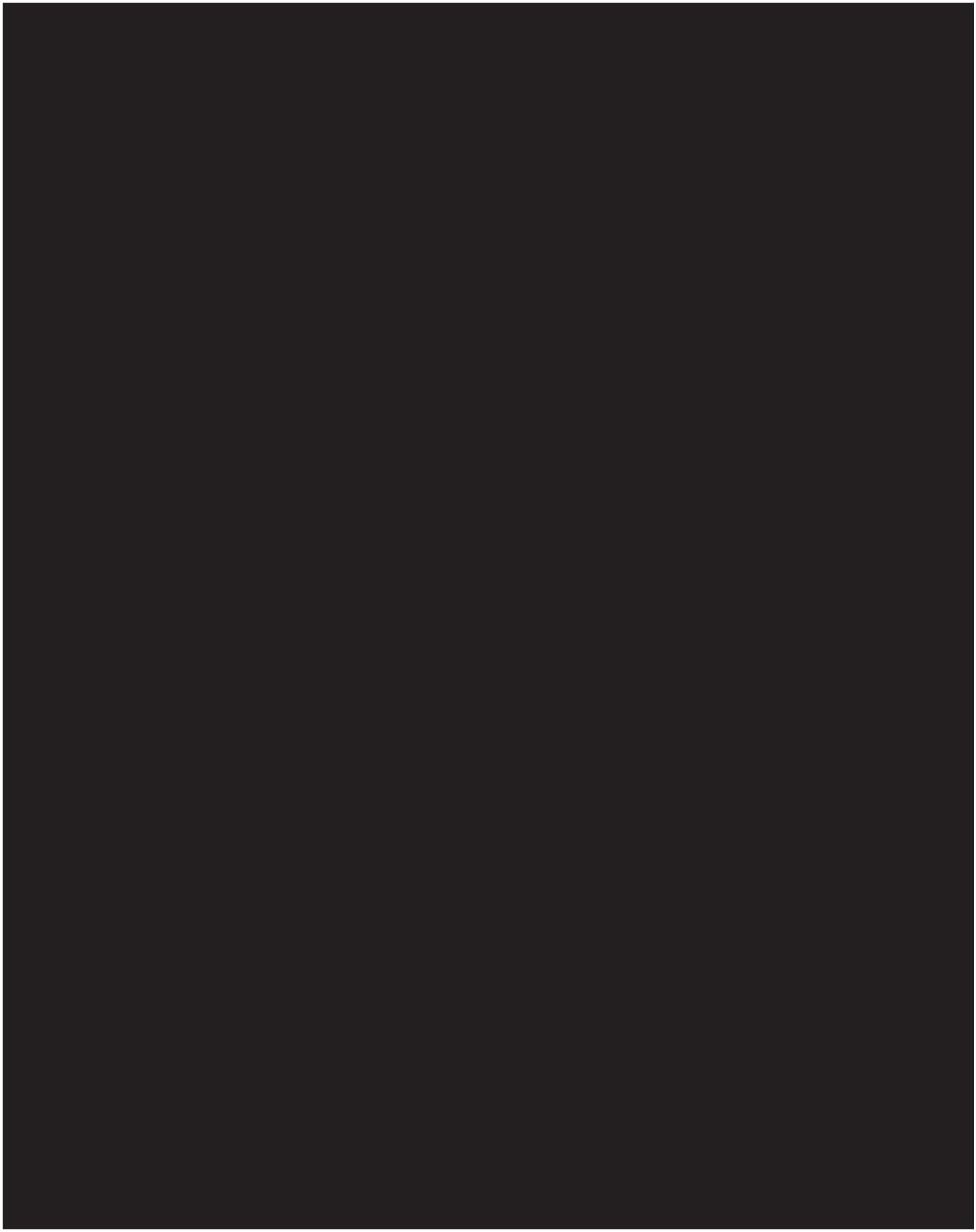


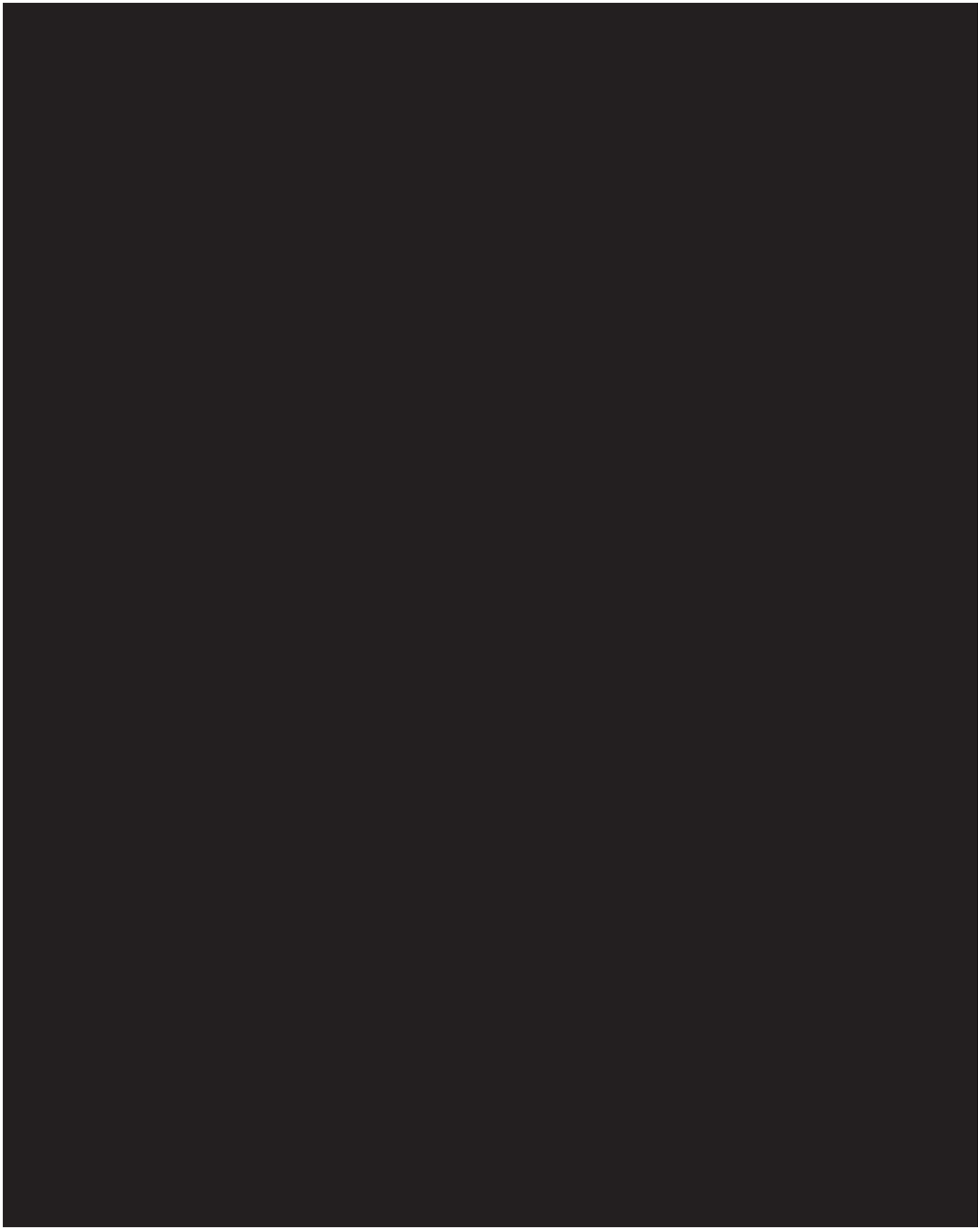


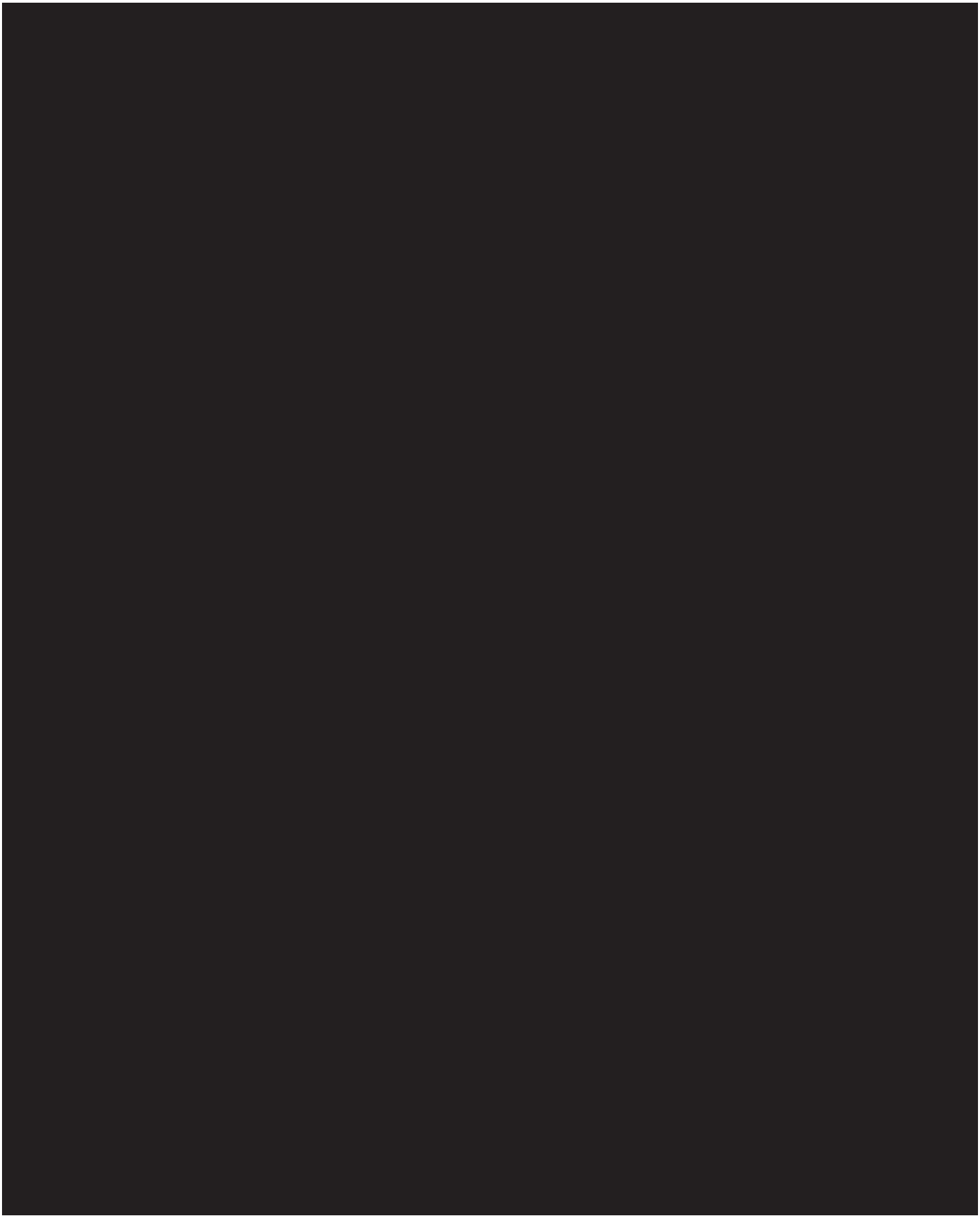


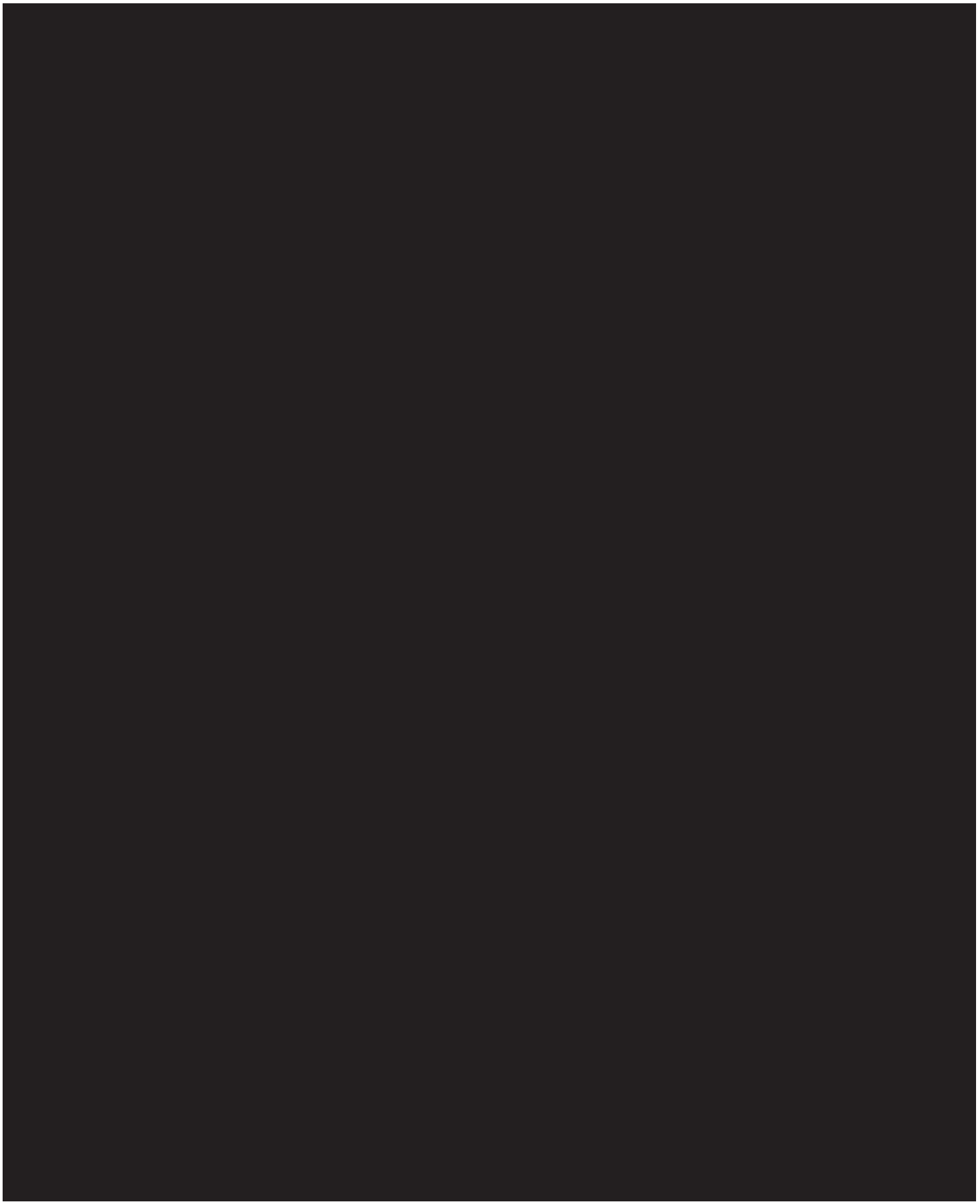


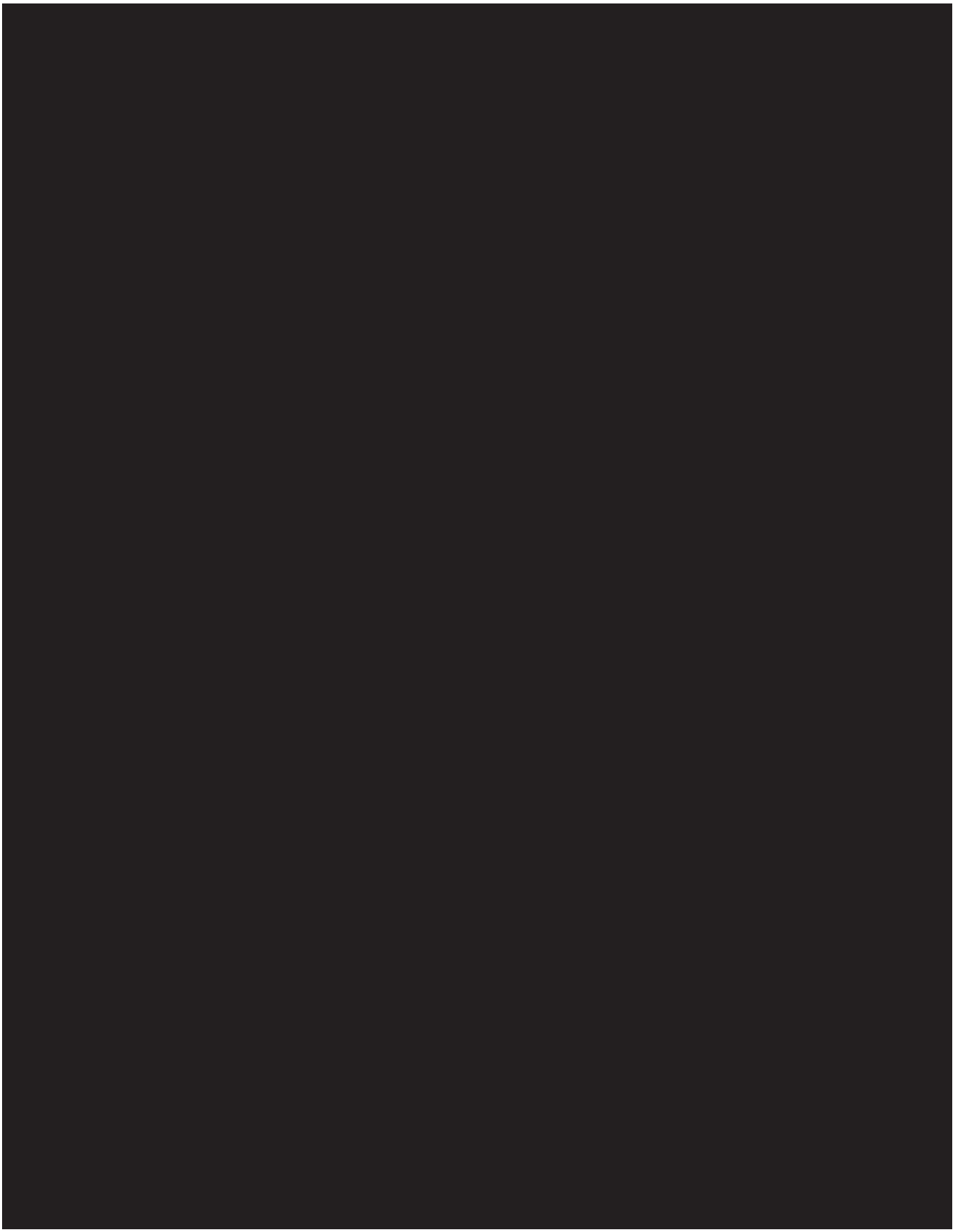


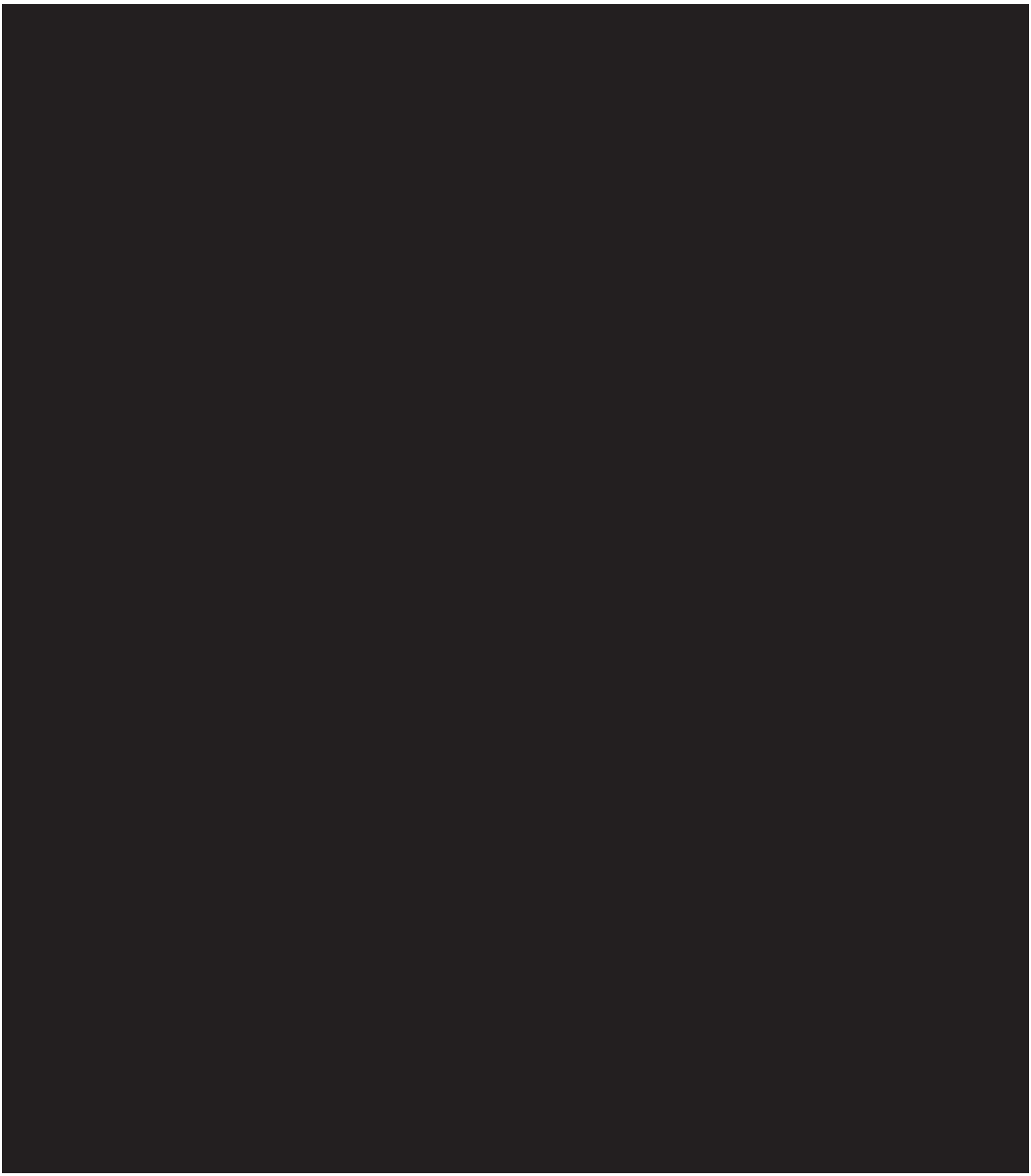


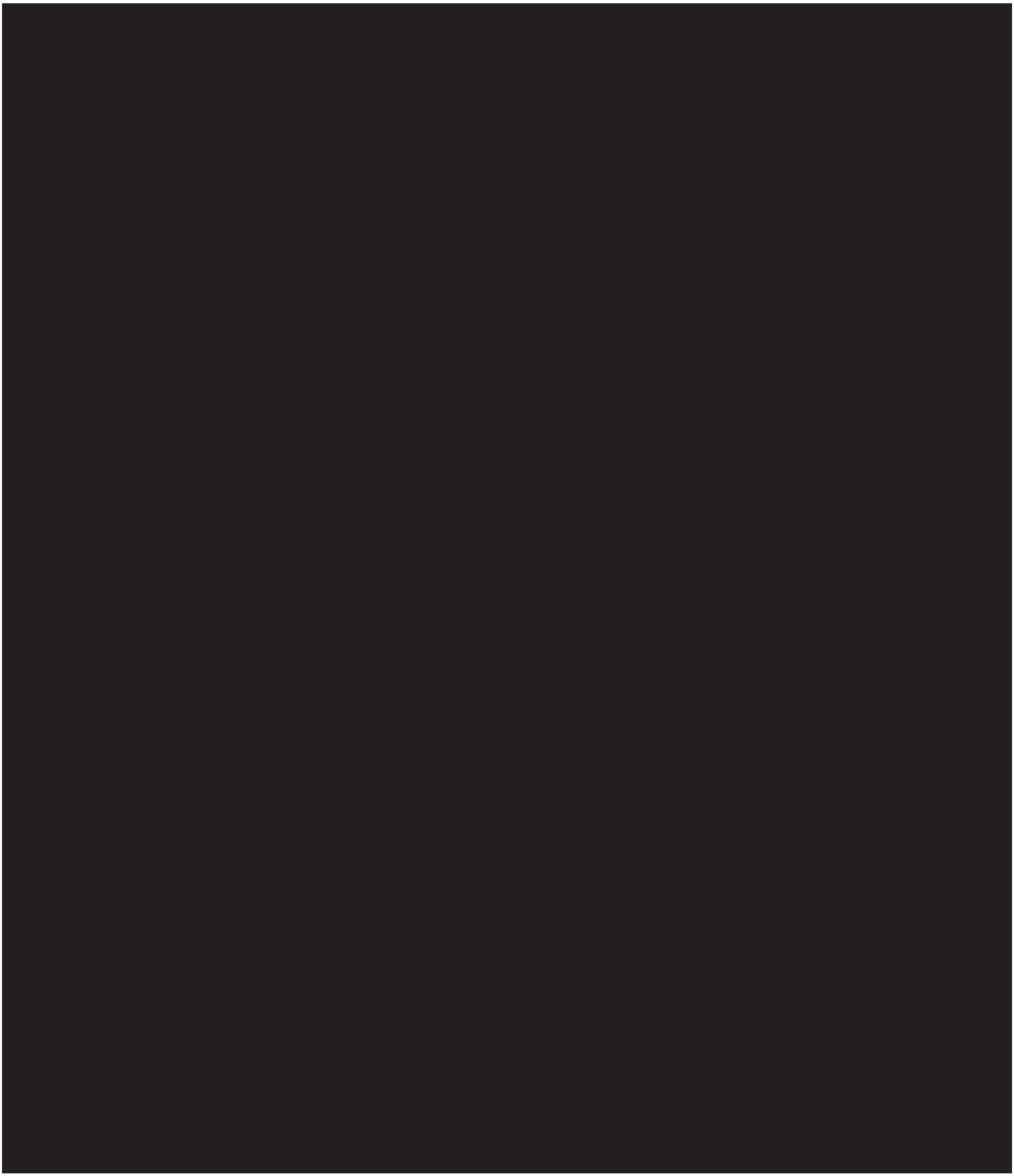


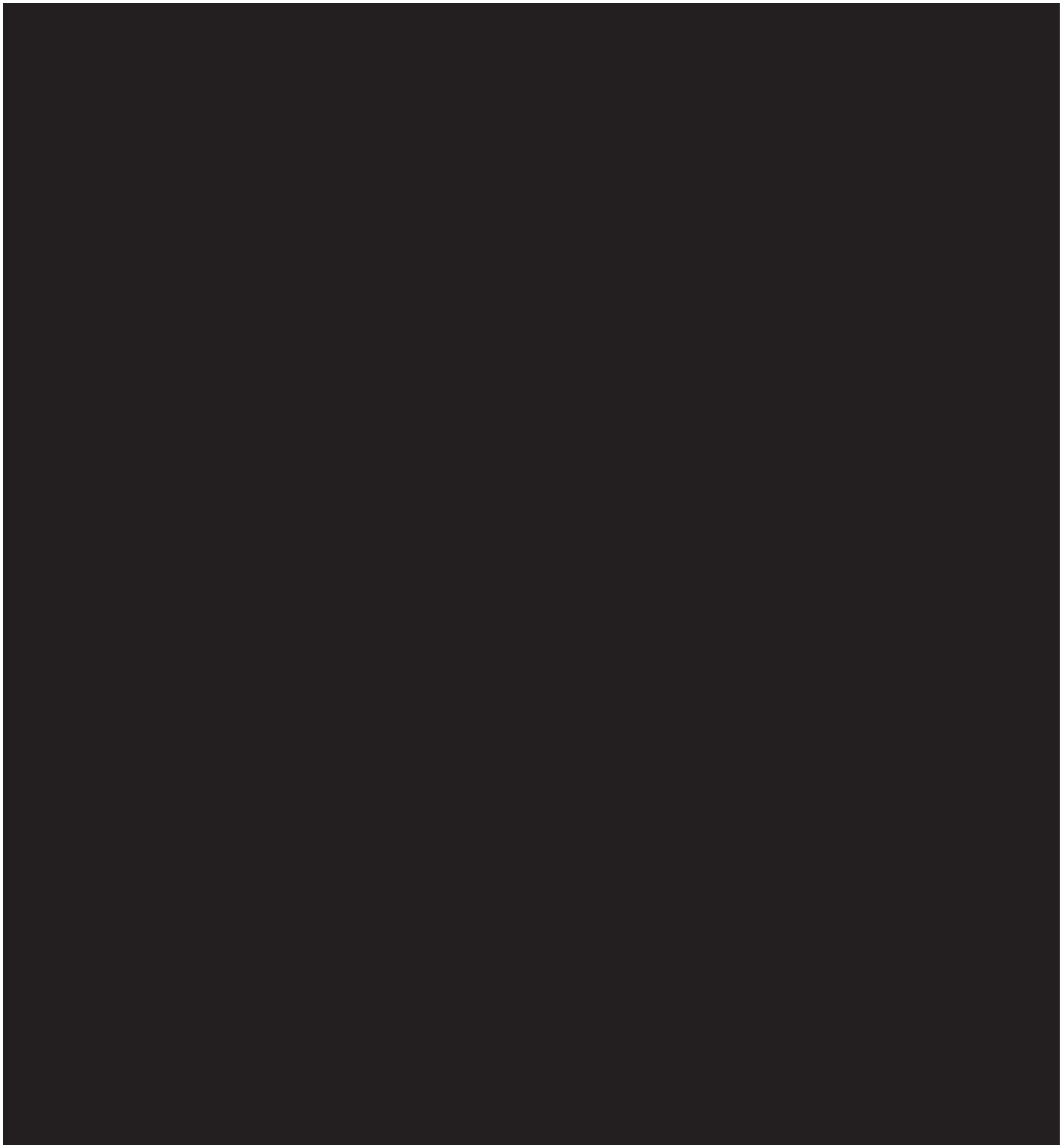














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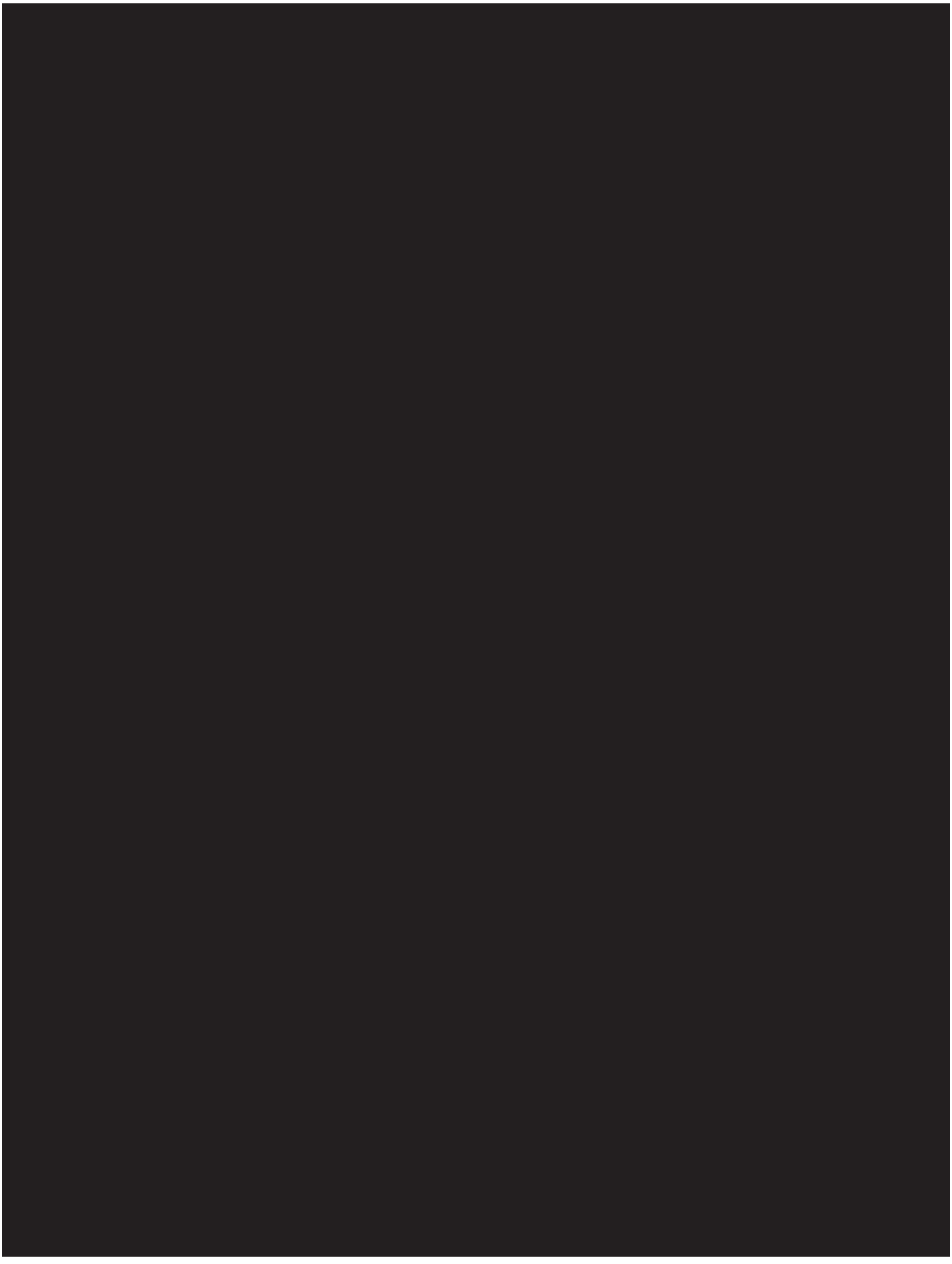
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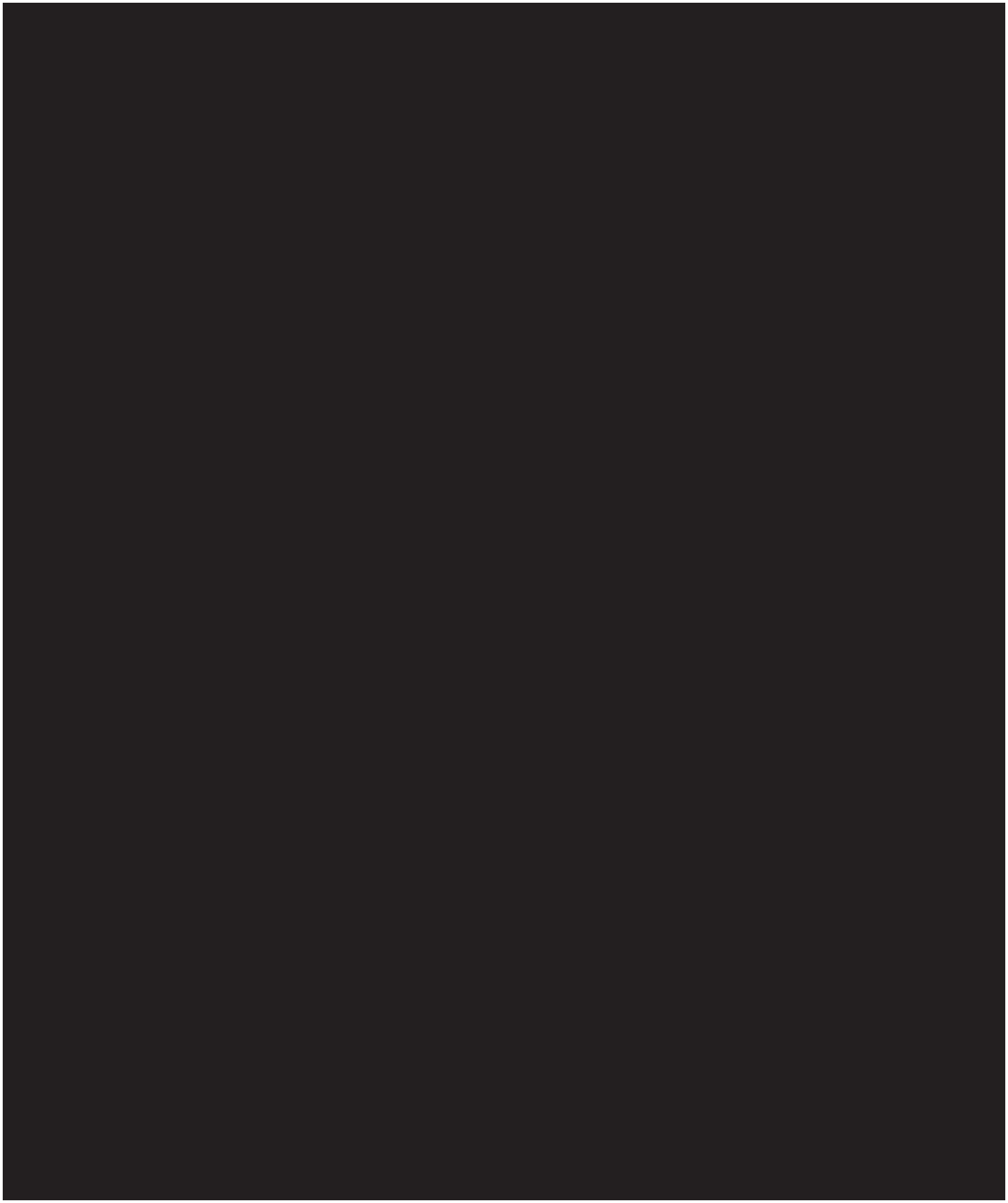
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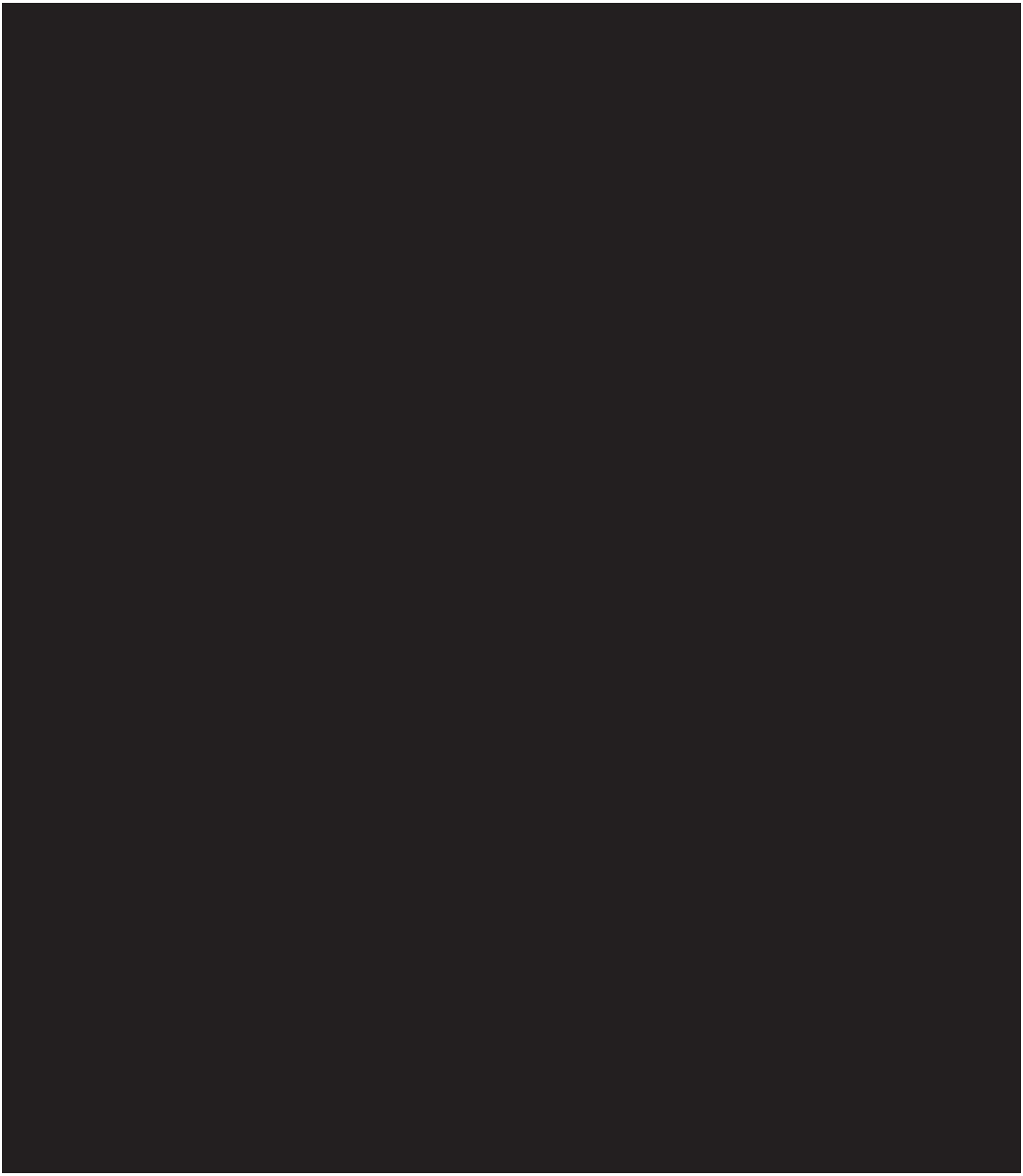
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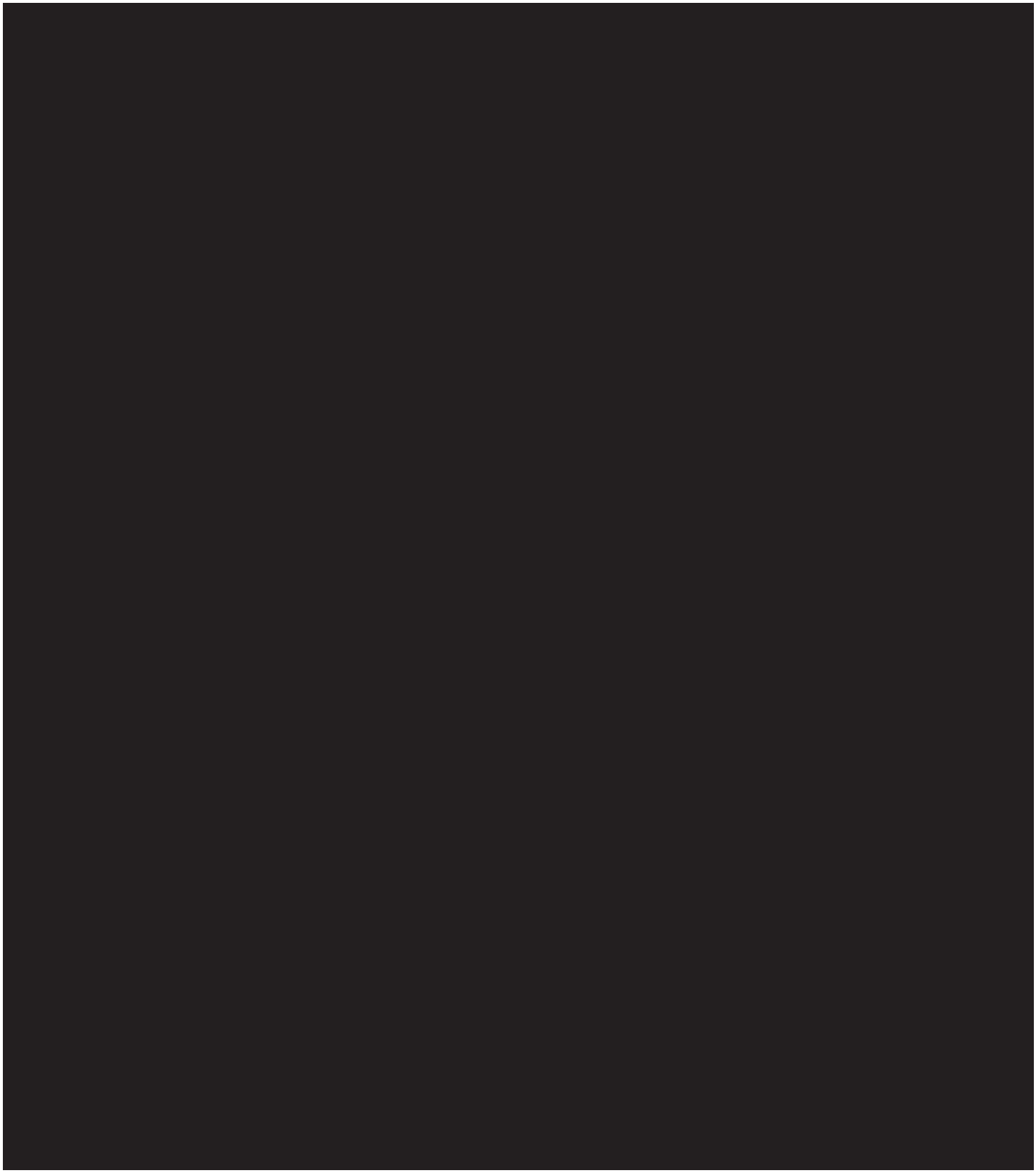


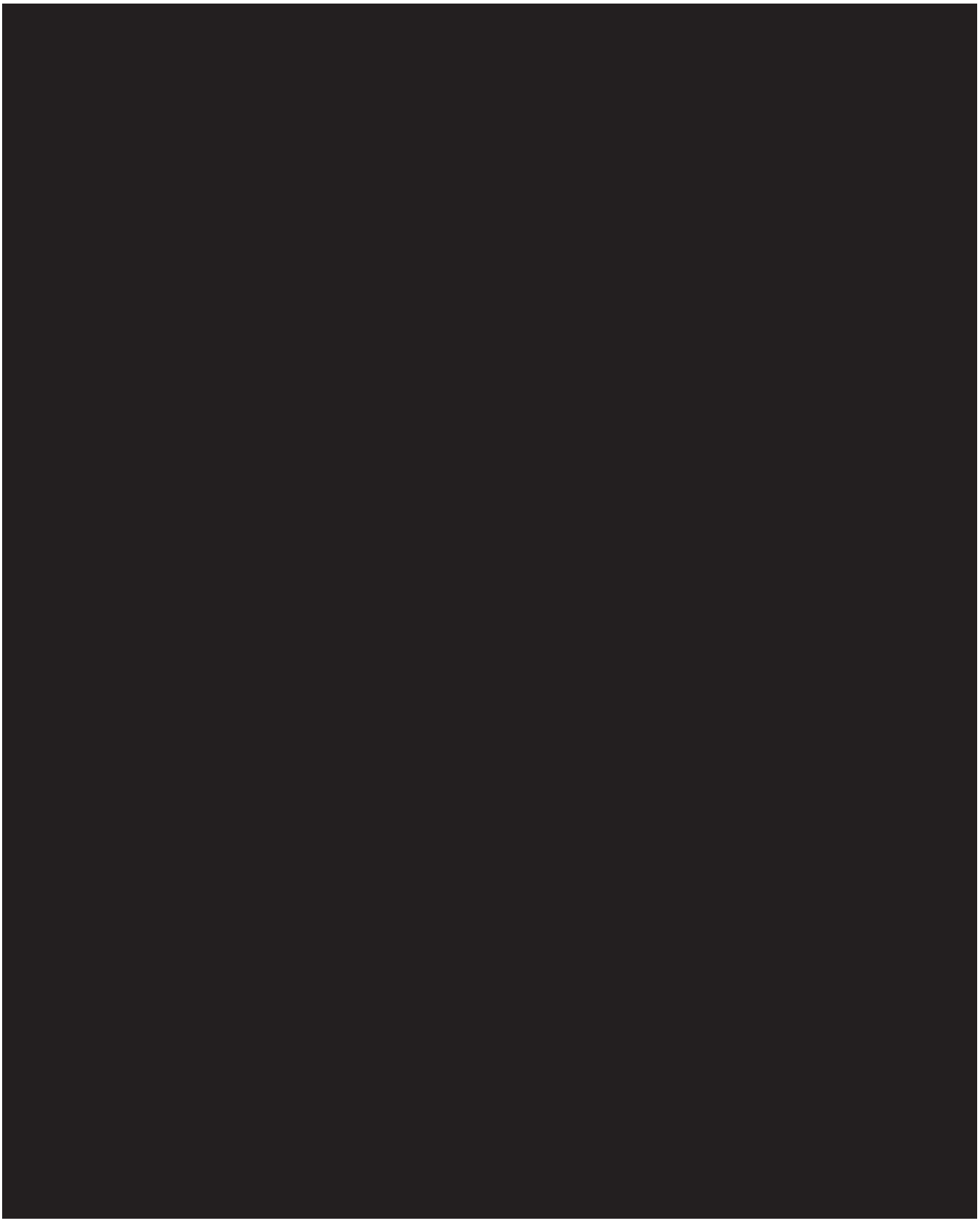


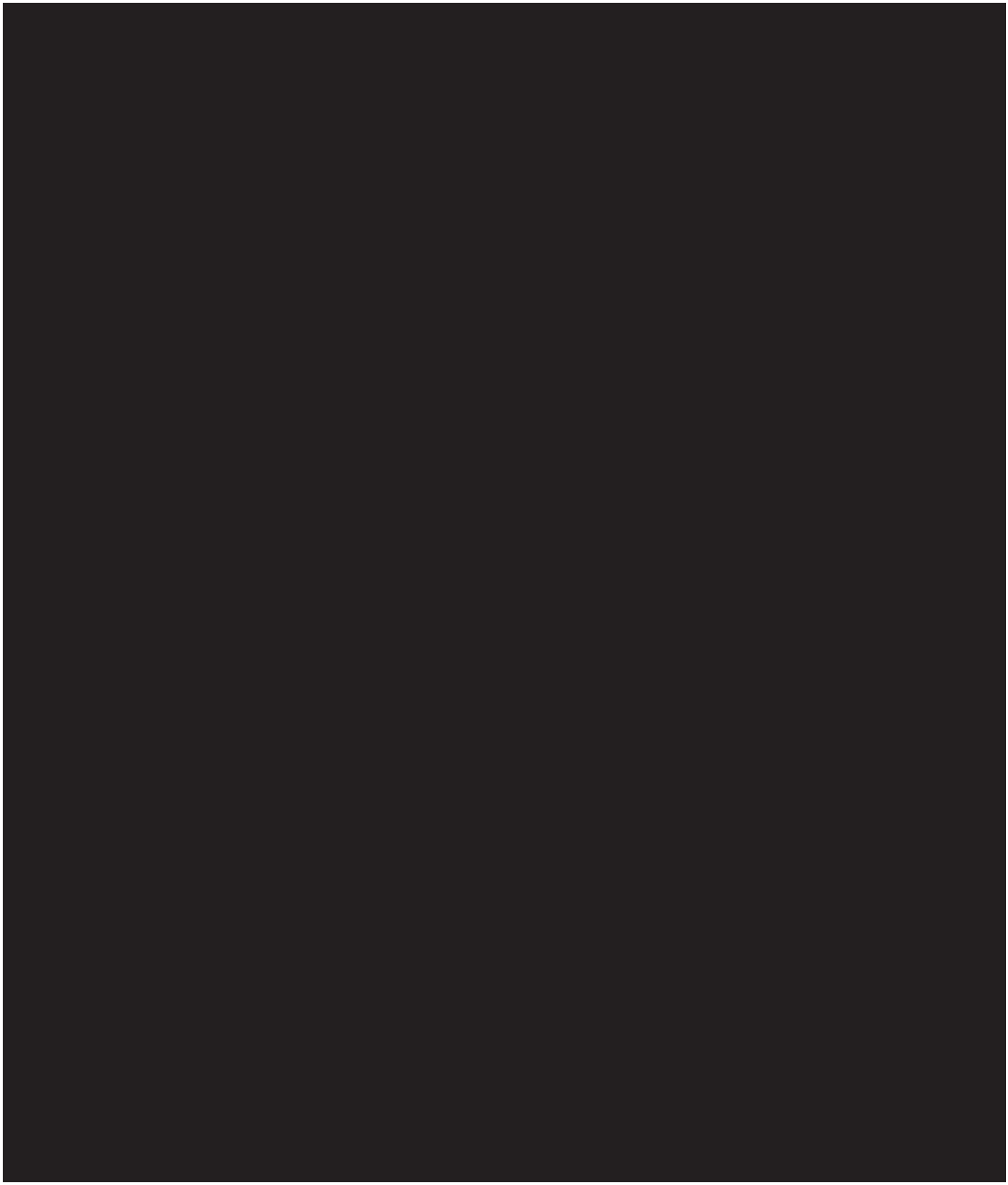


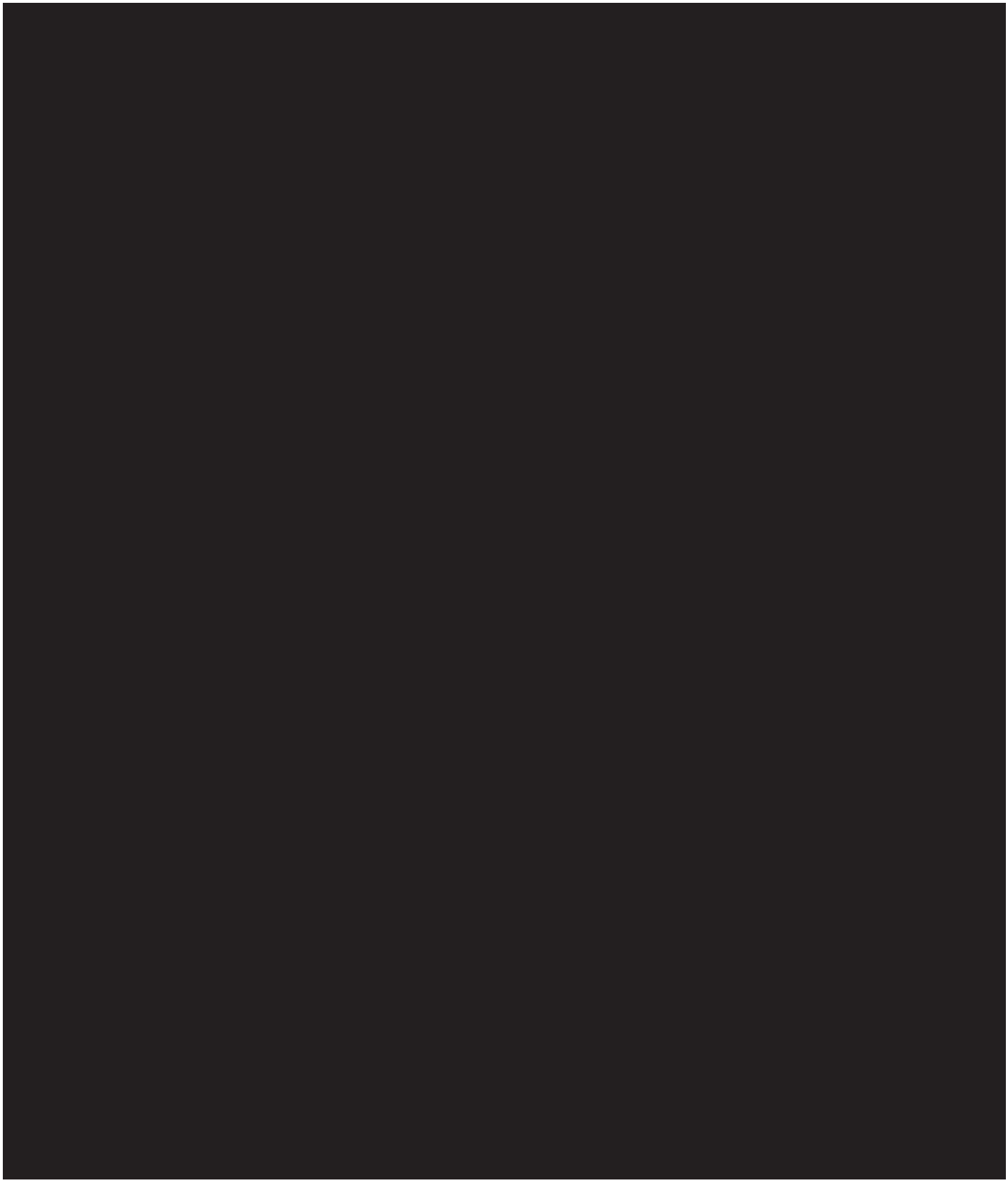


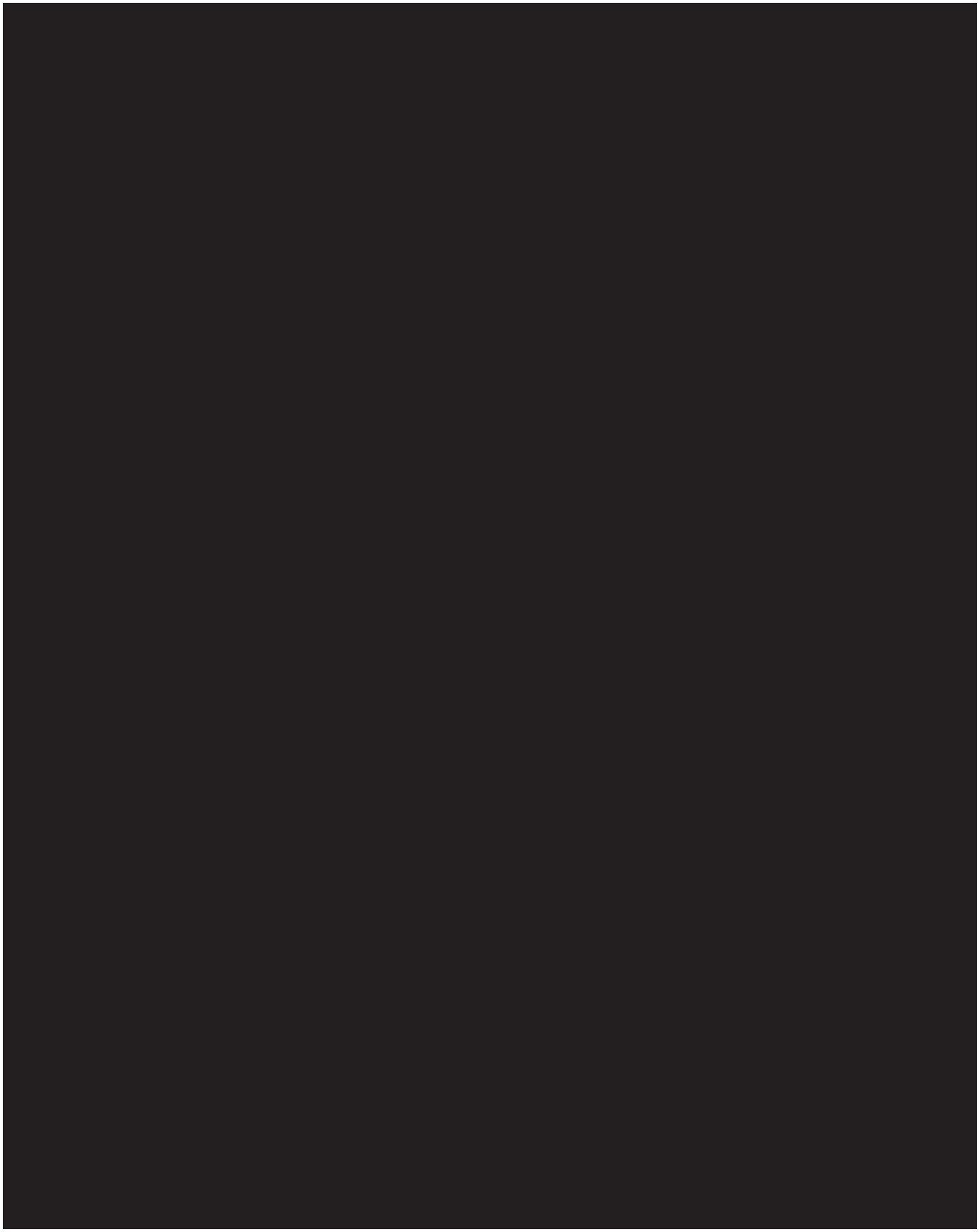


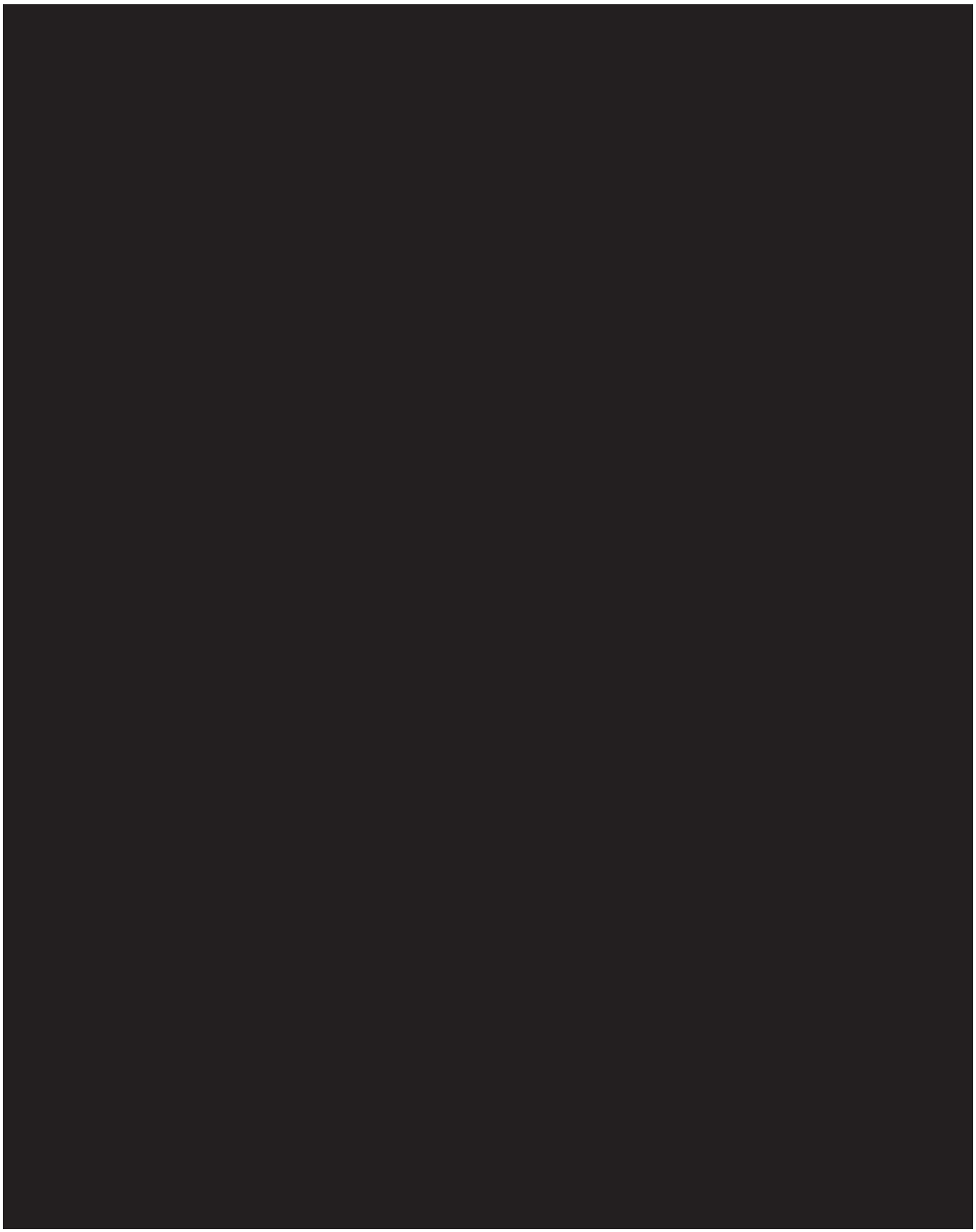


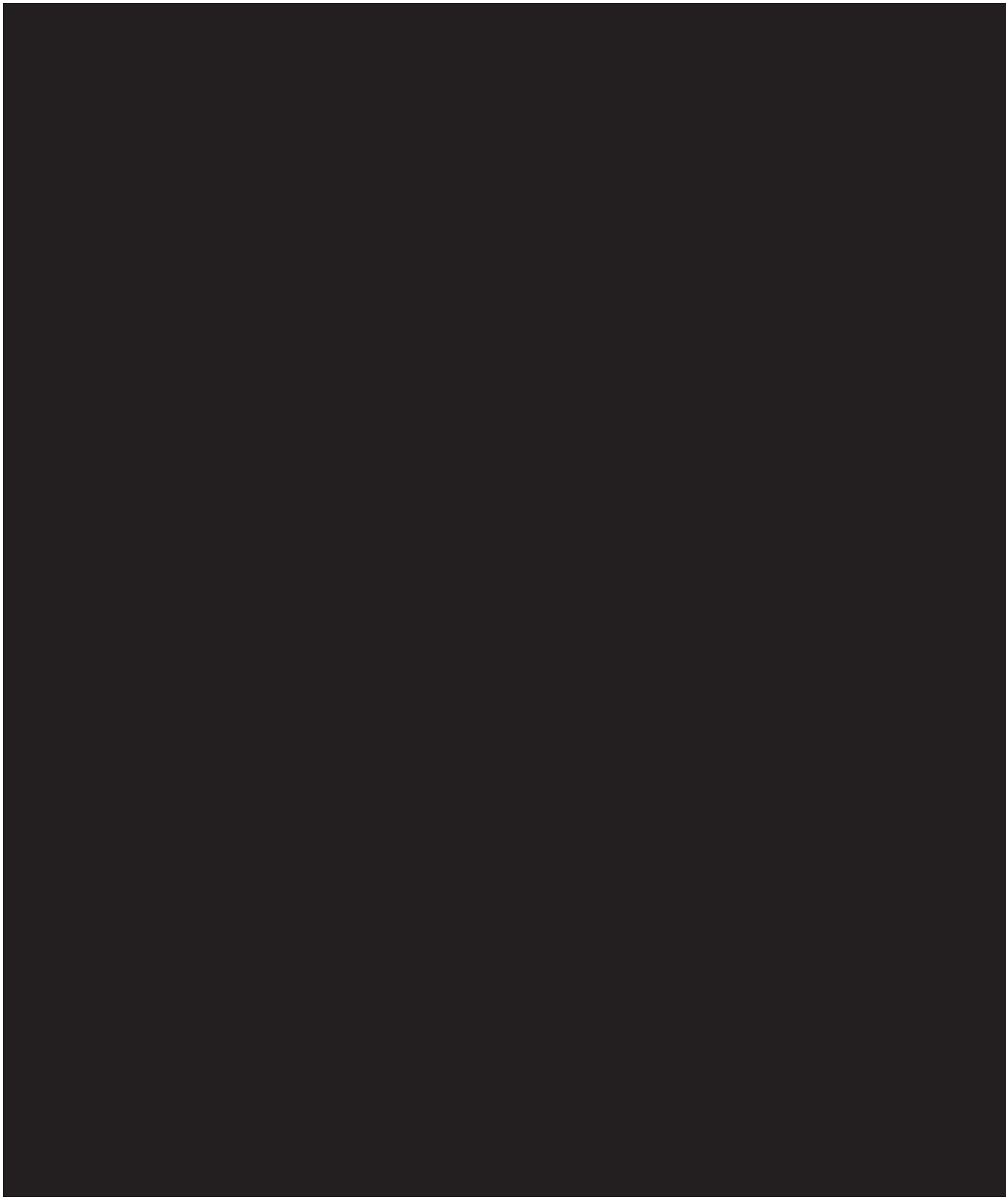




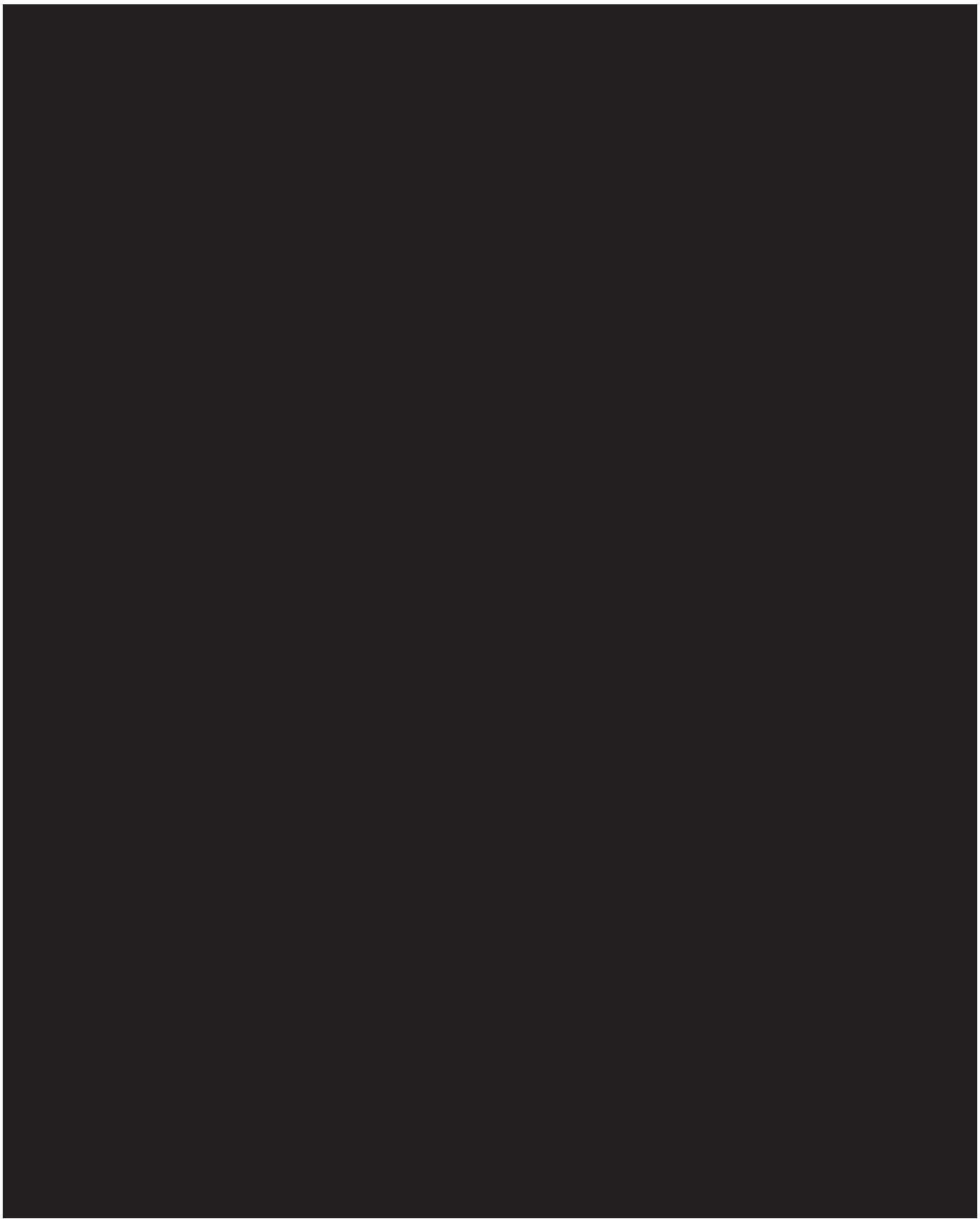


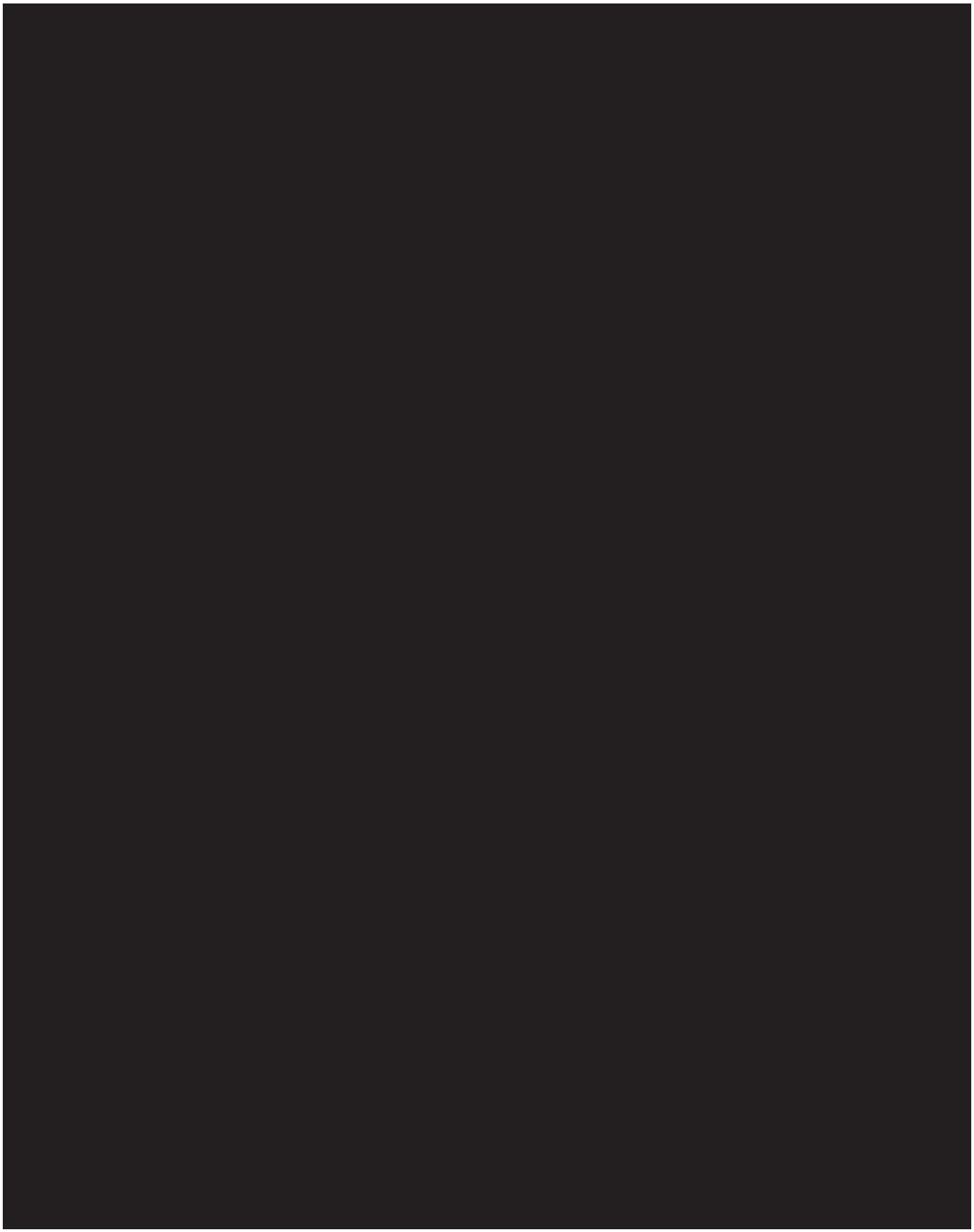


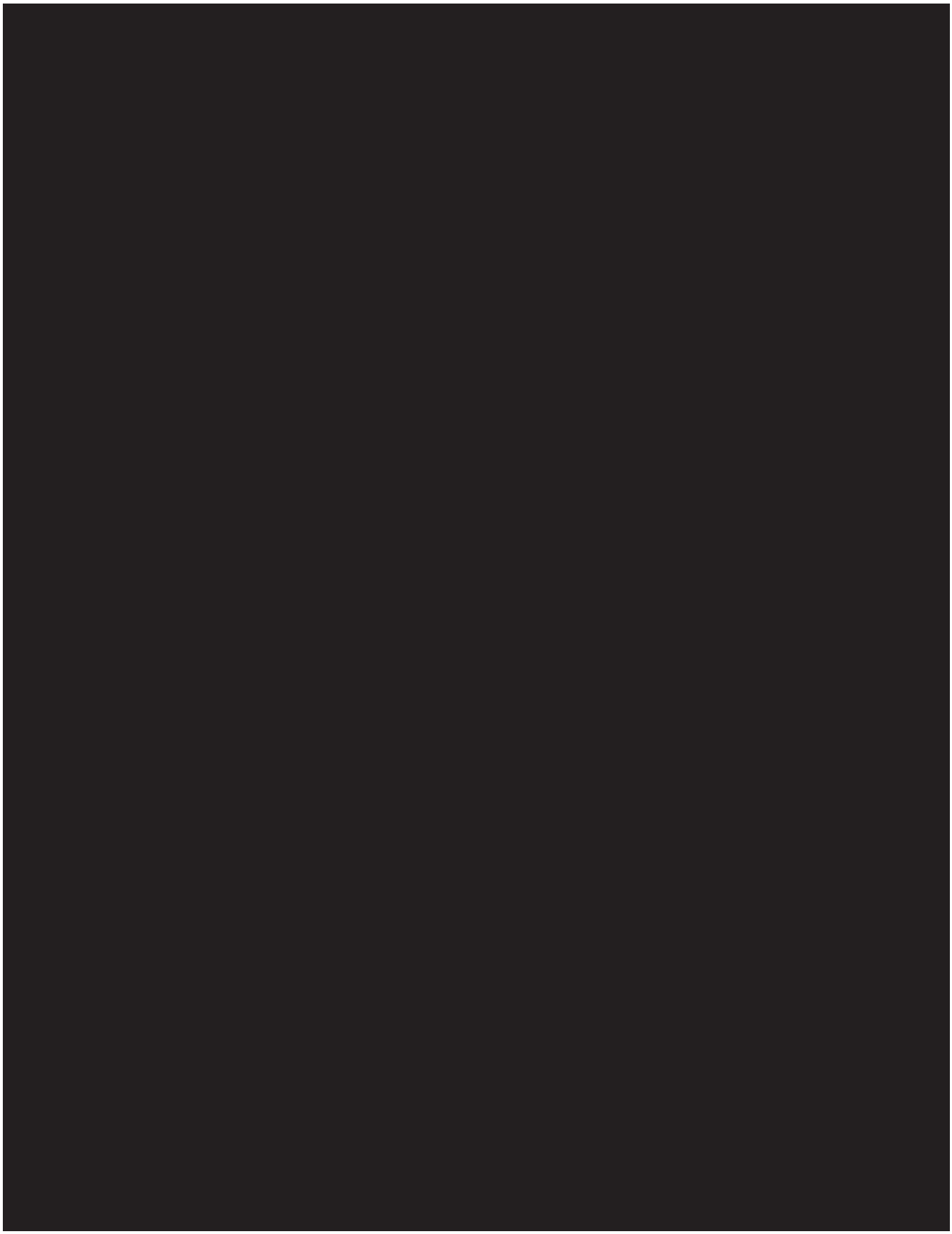


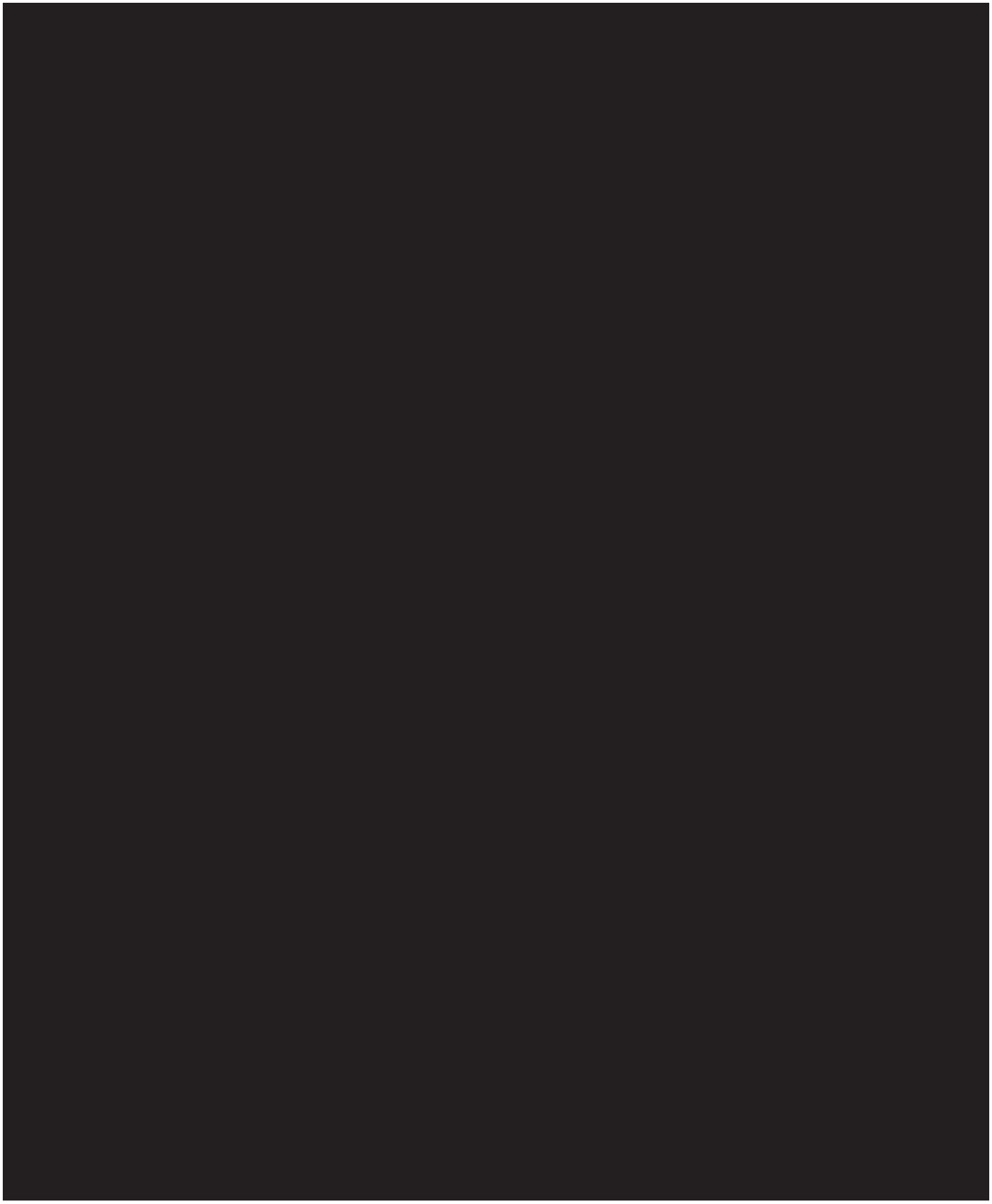


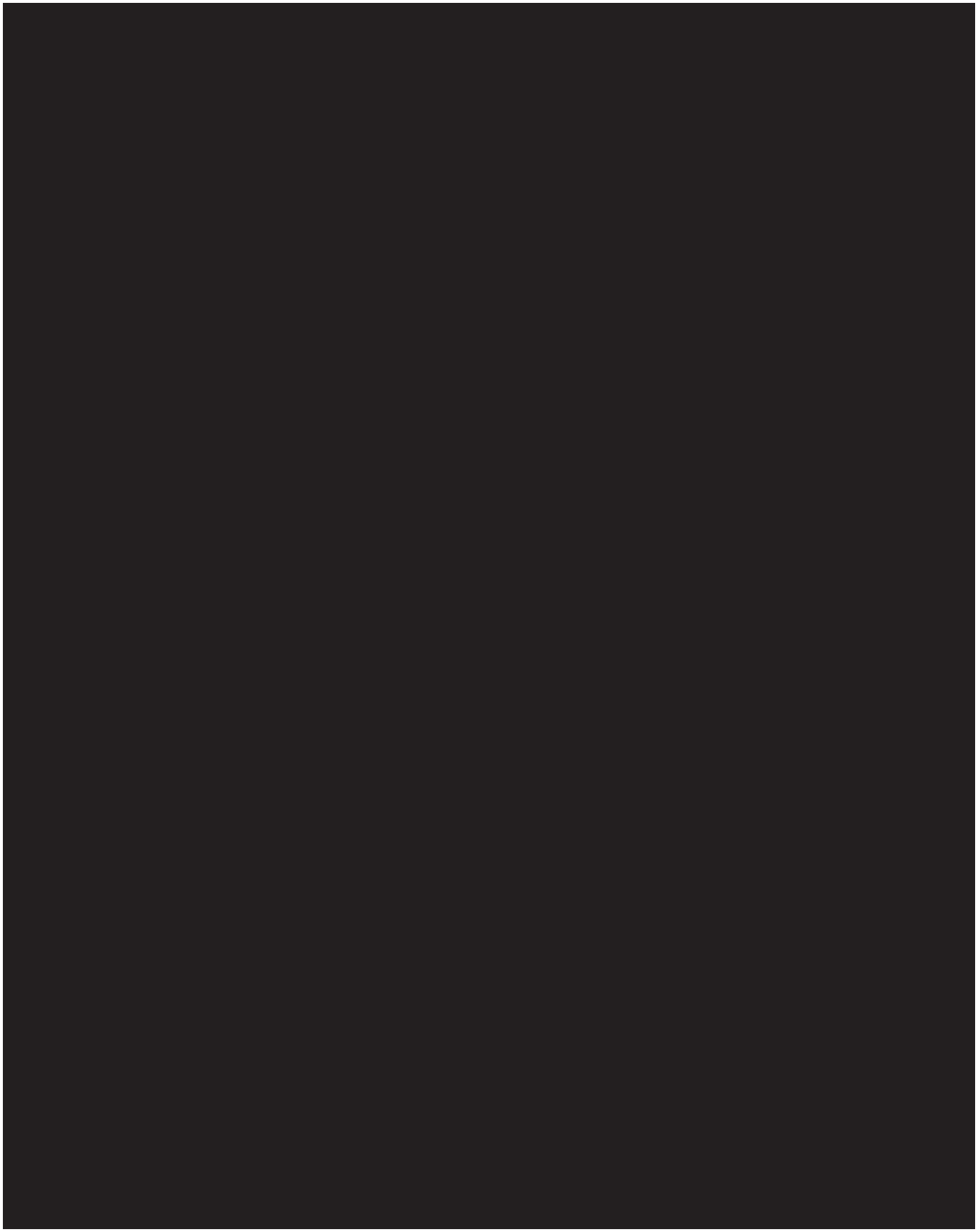


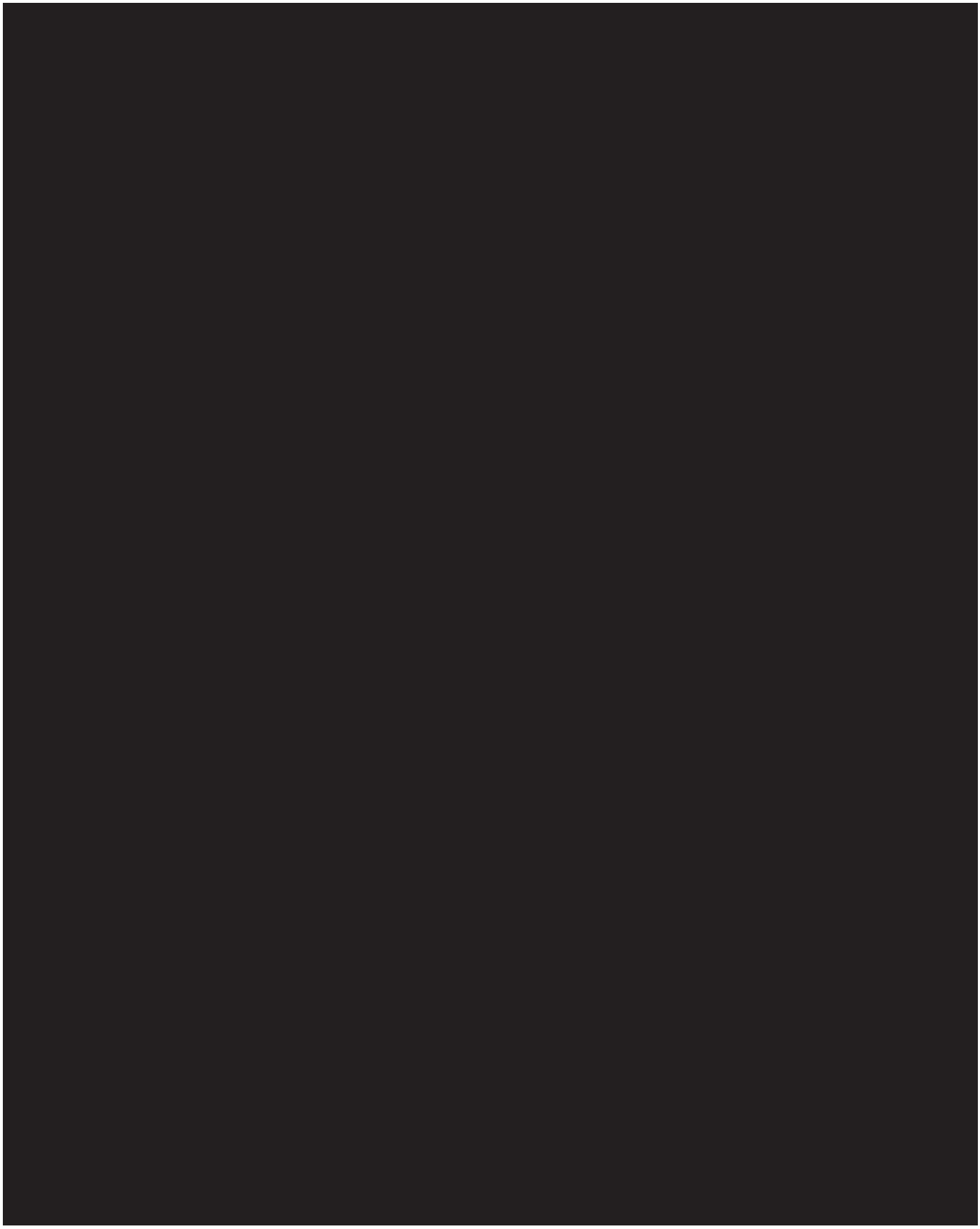


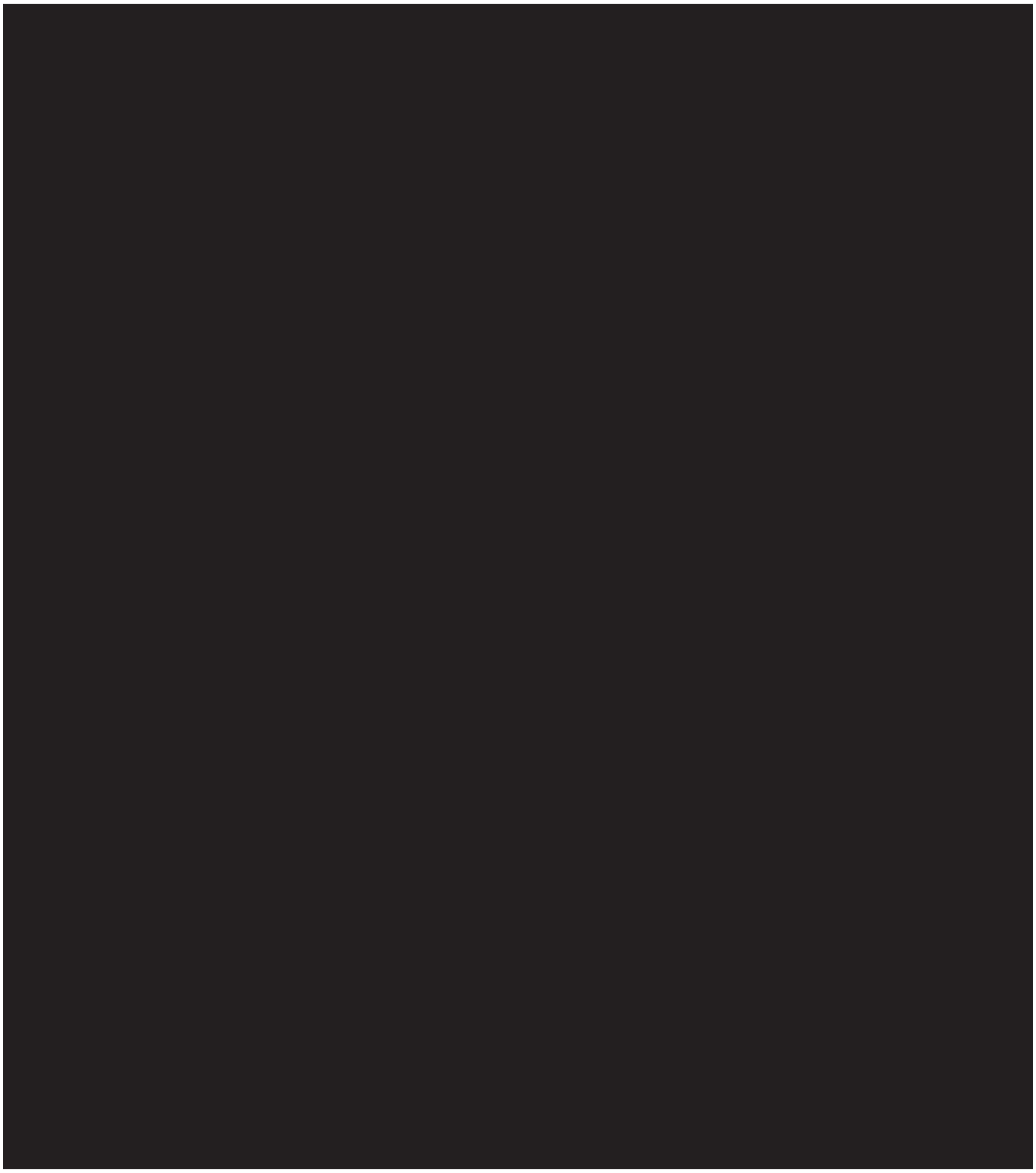


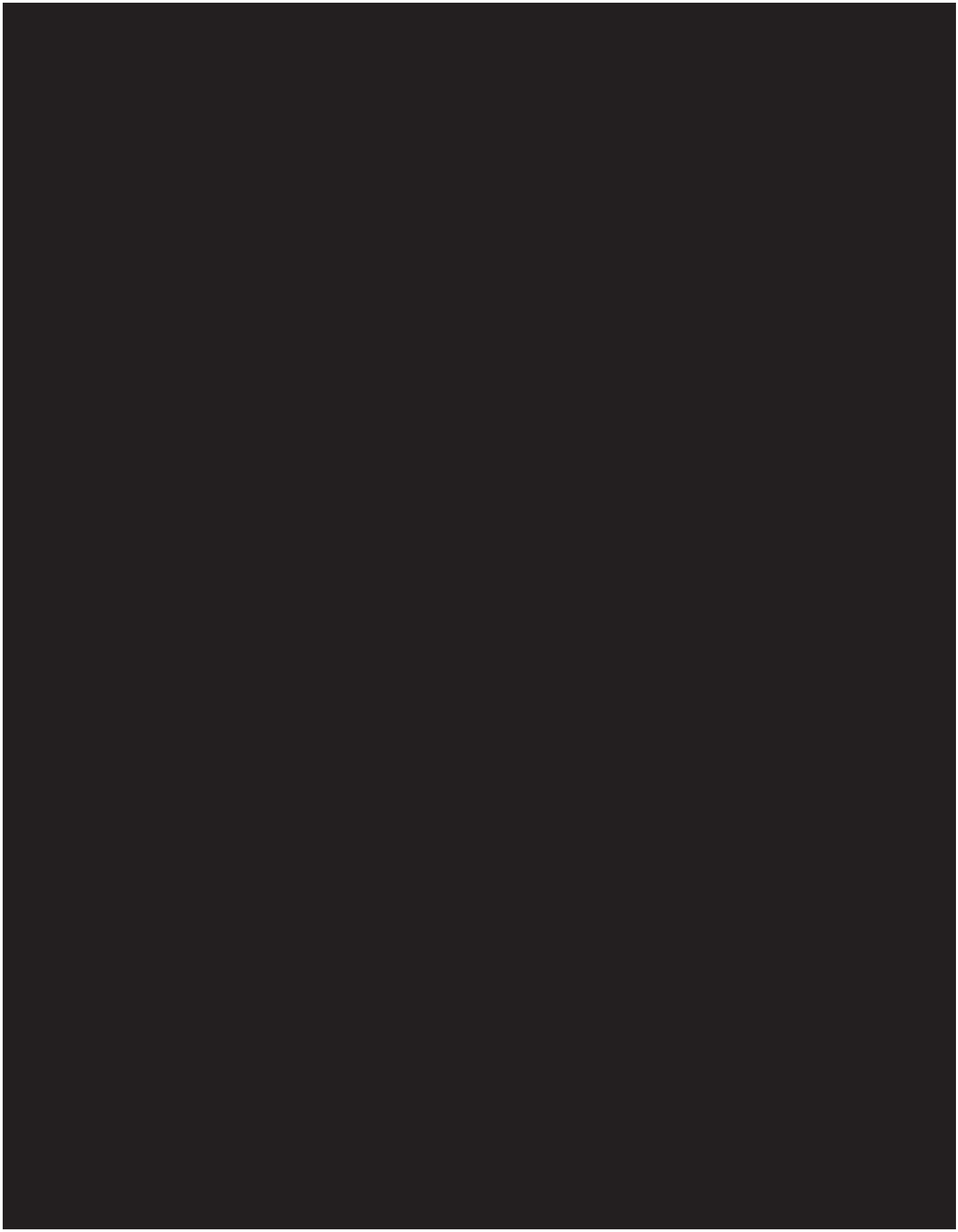


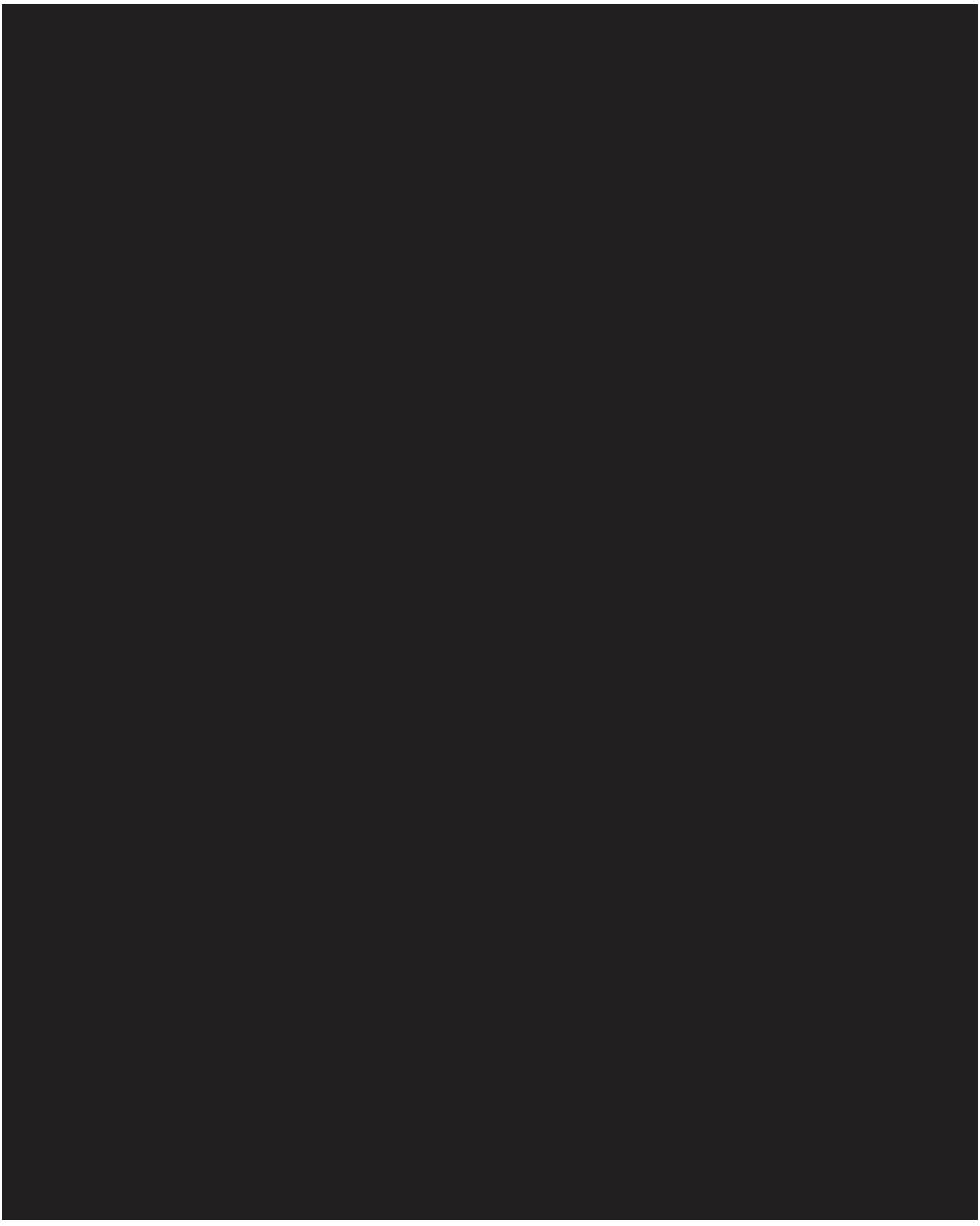


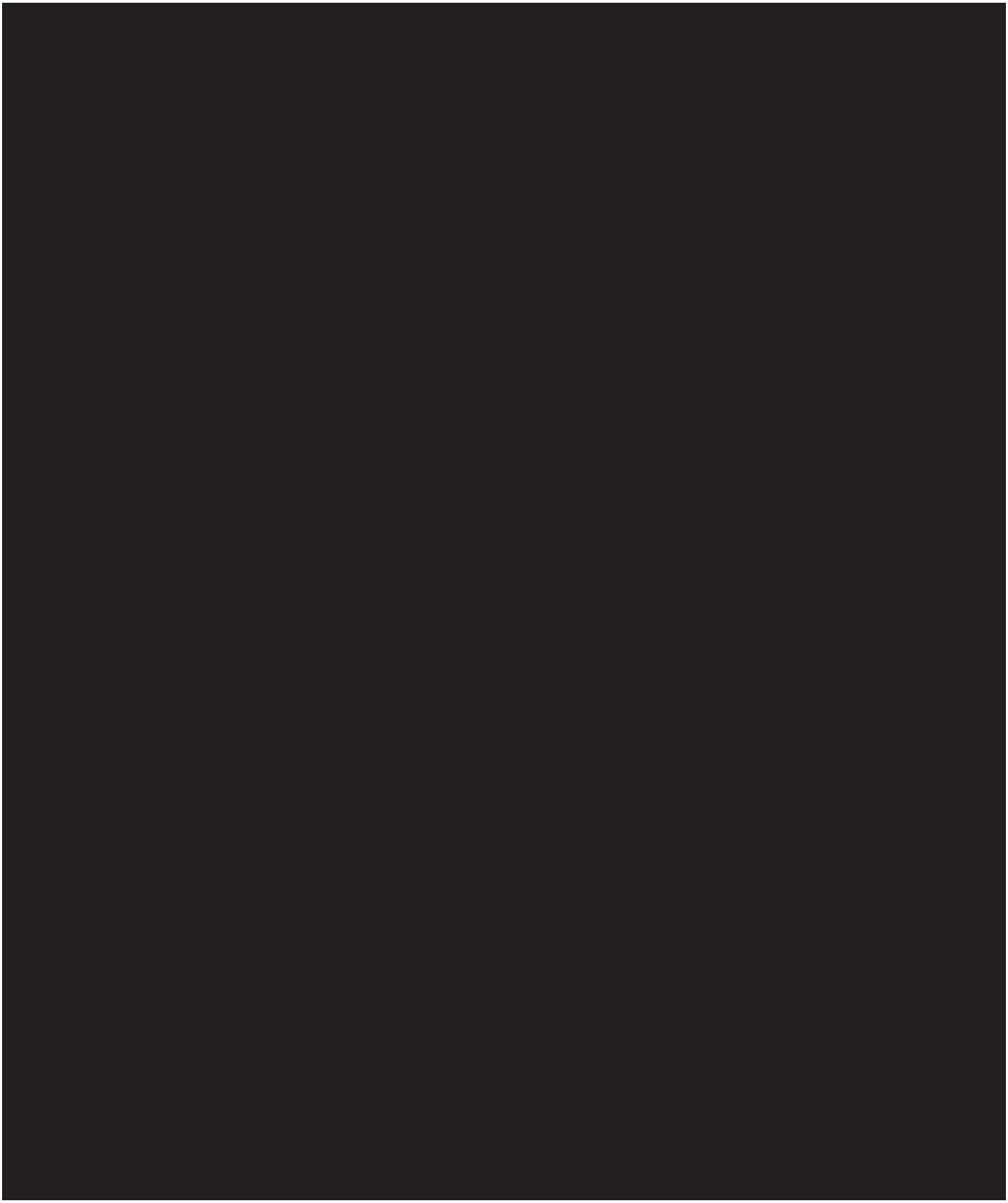


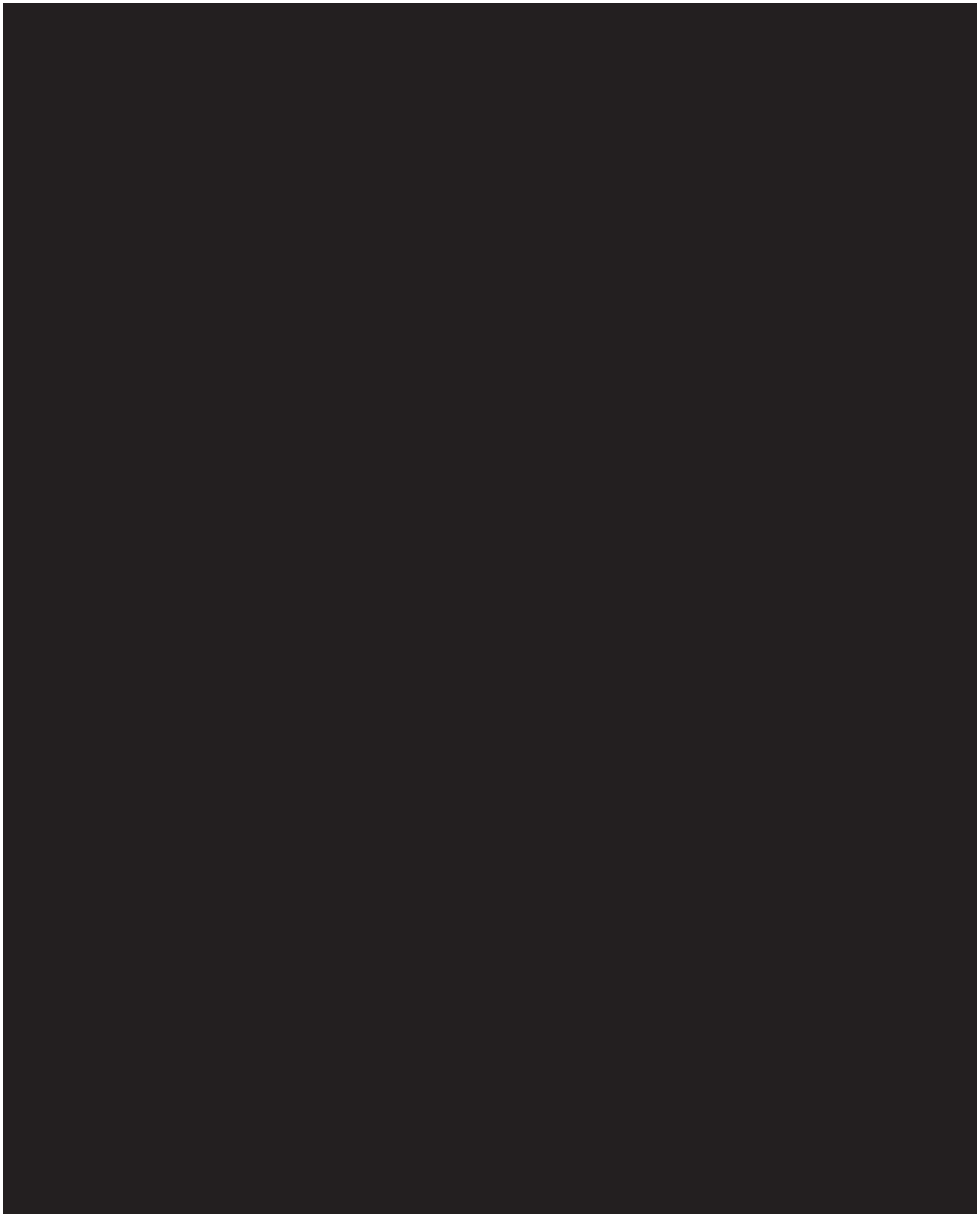


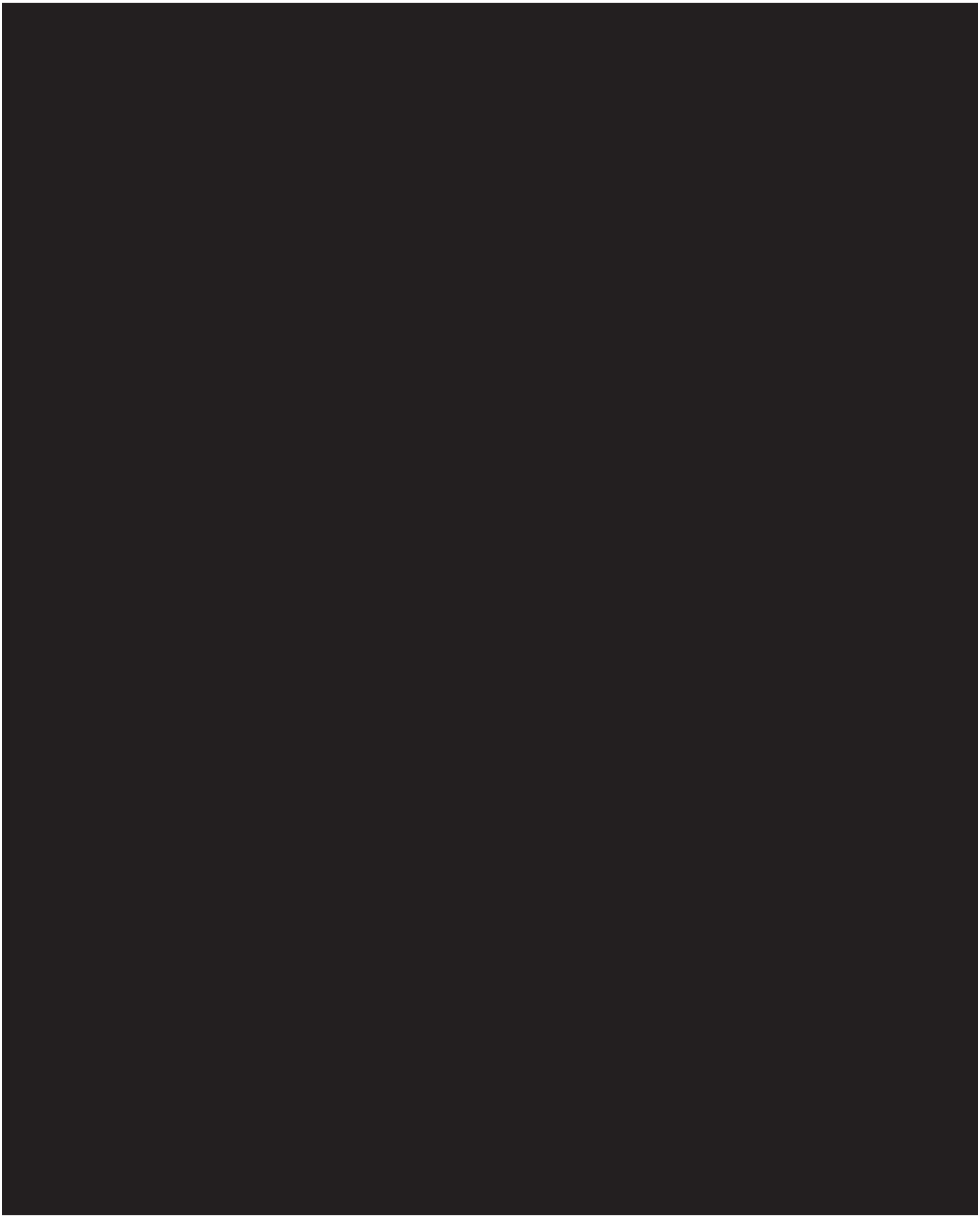








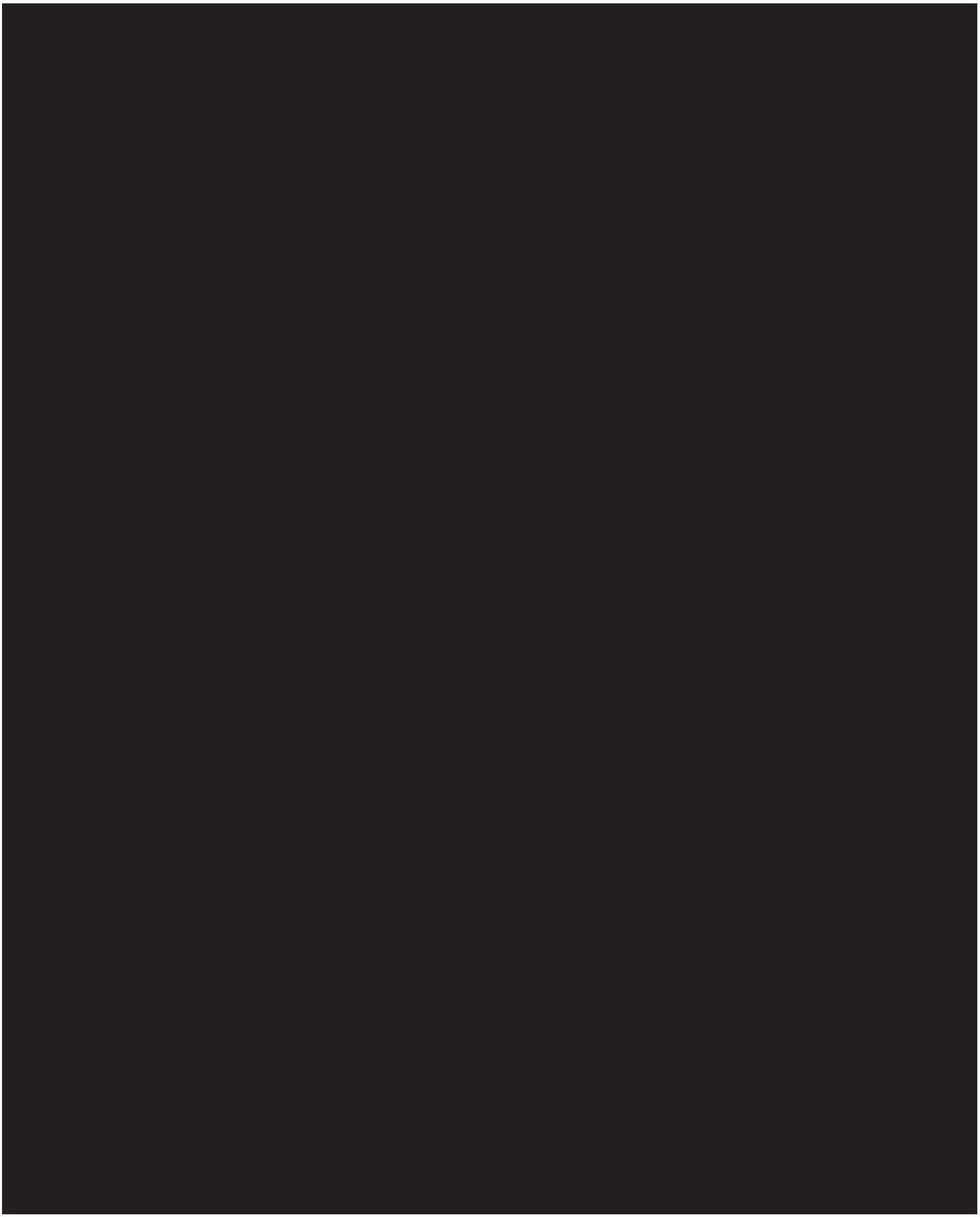


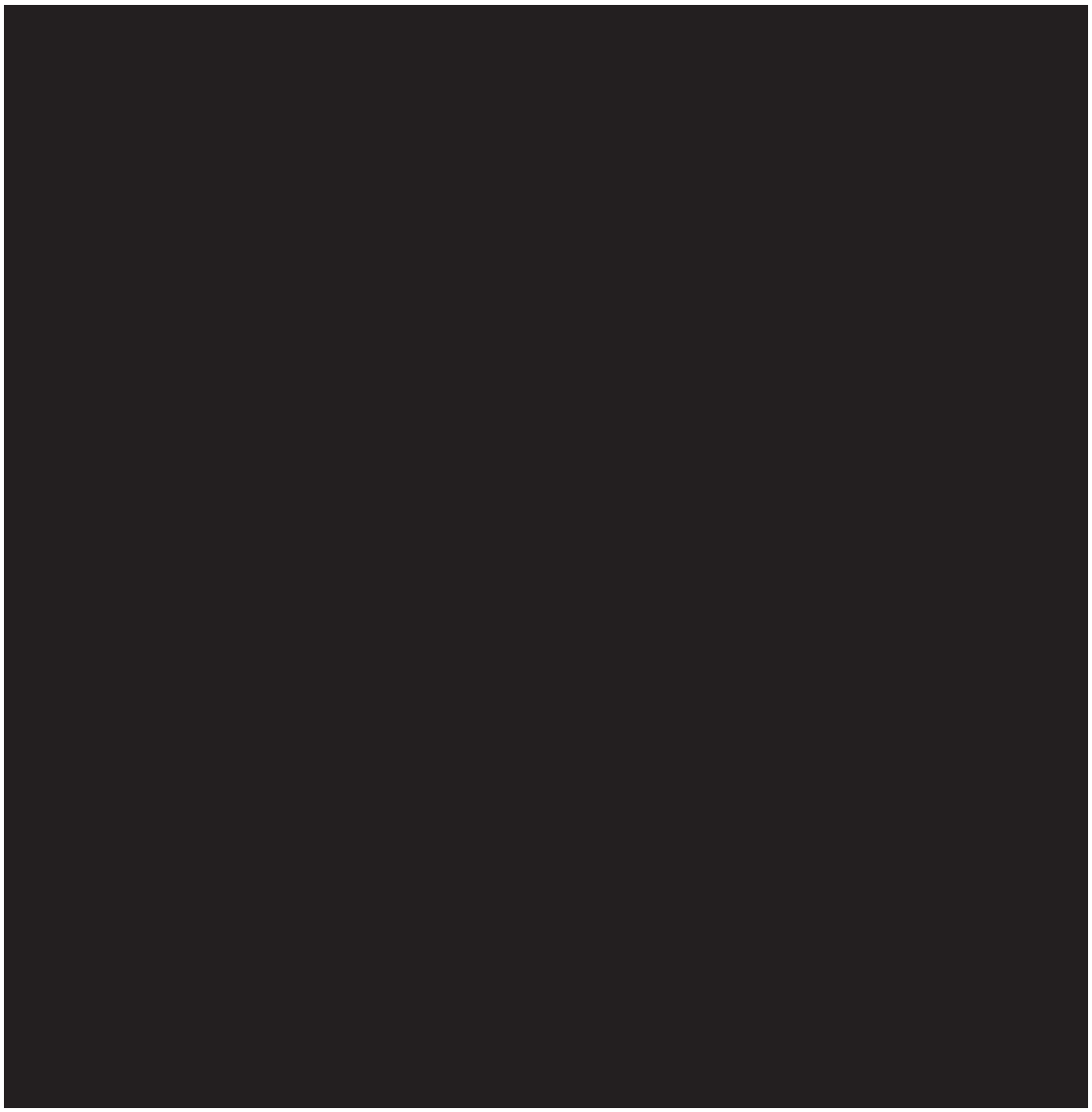




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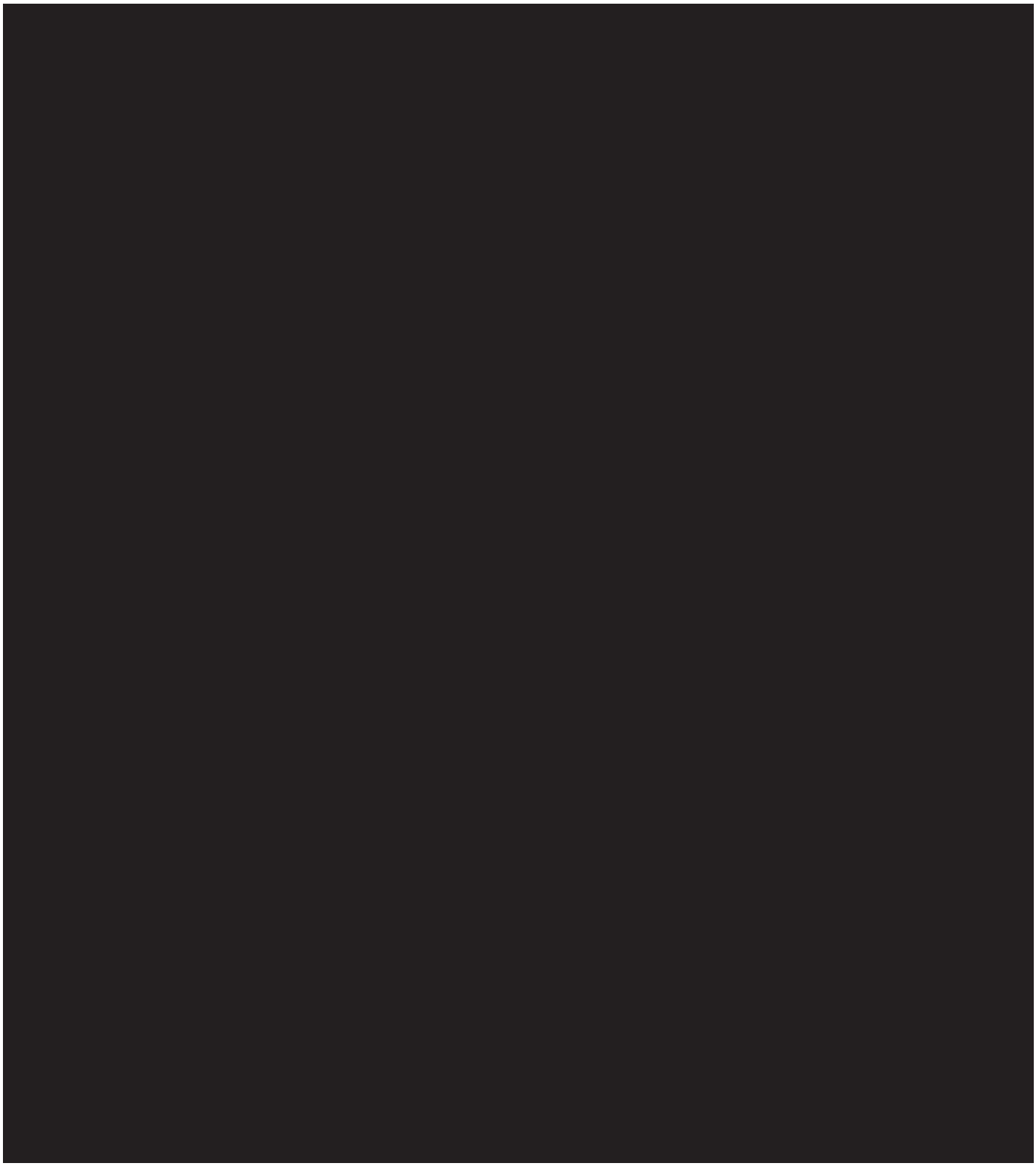
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Enterprise Management



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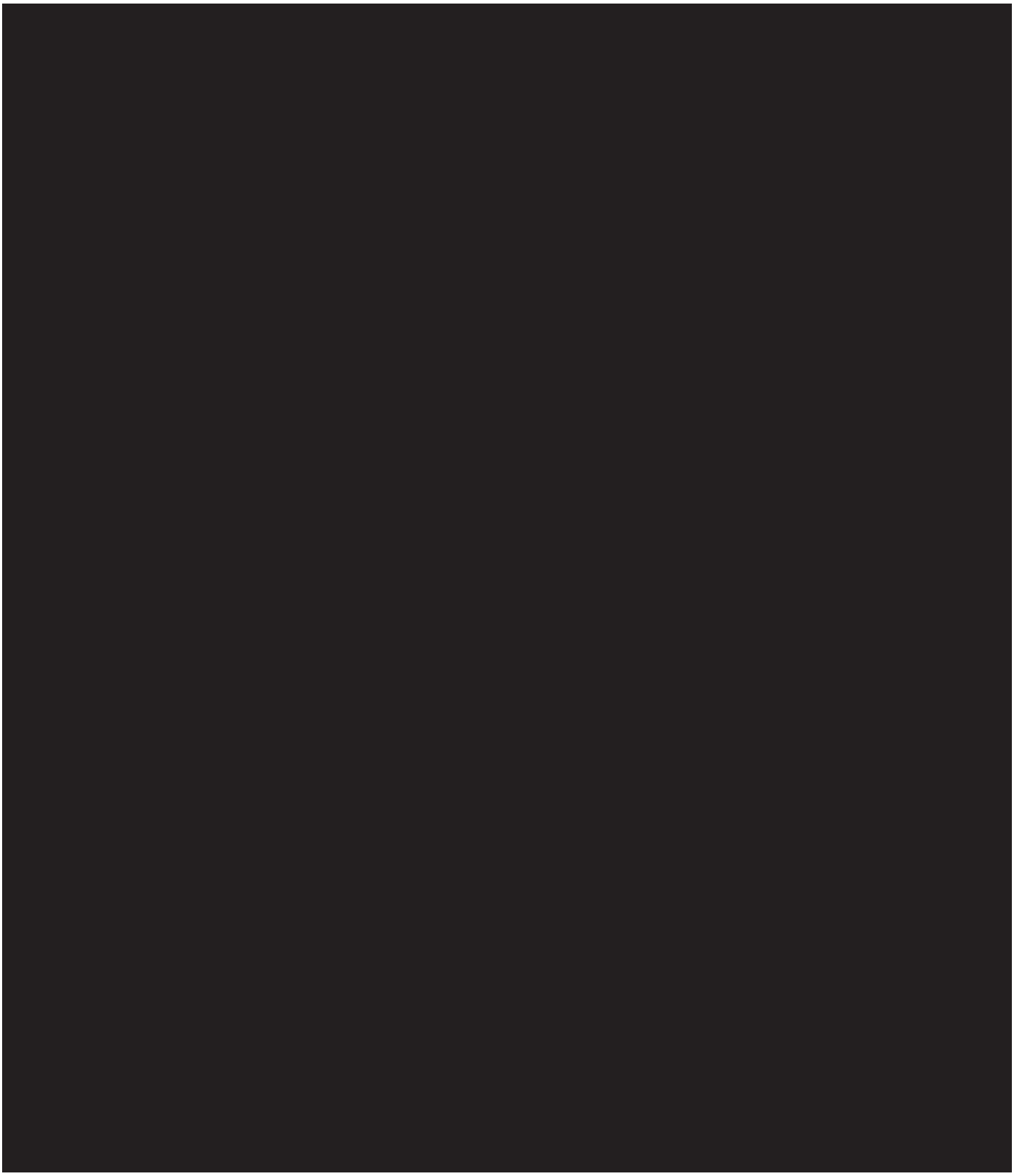
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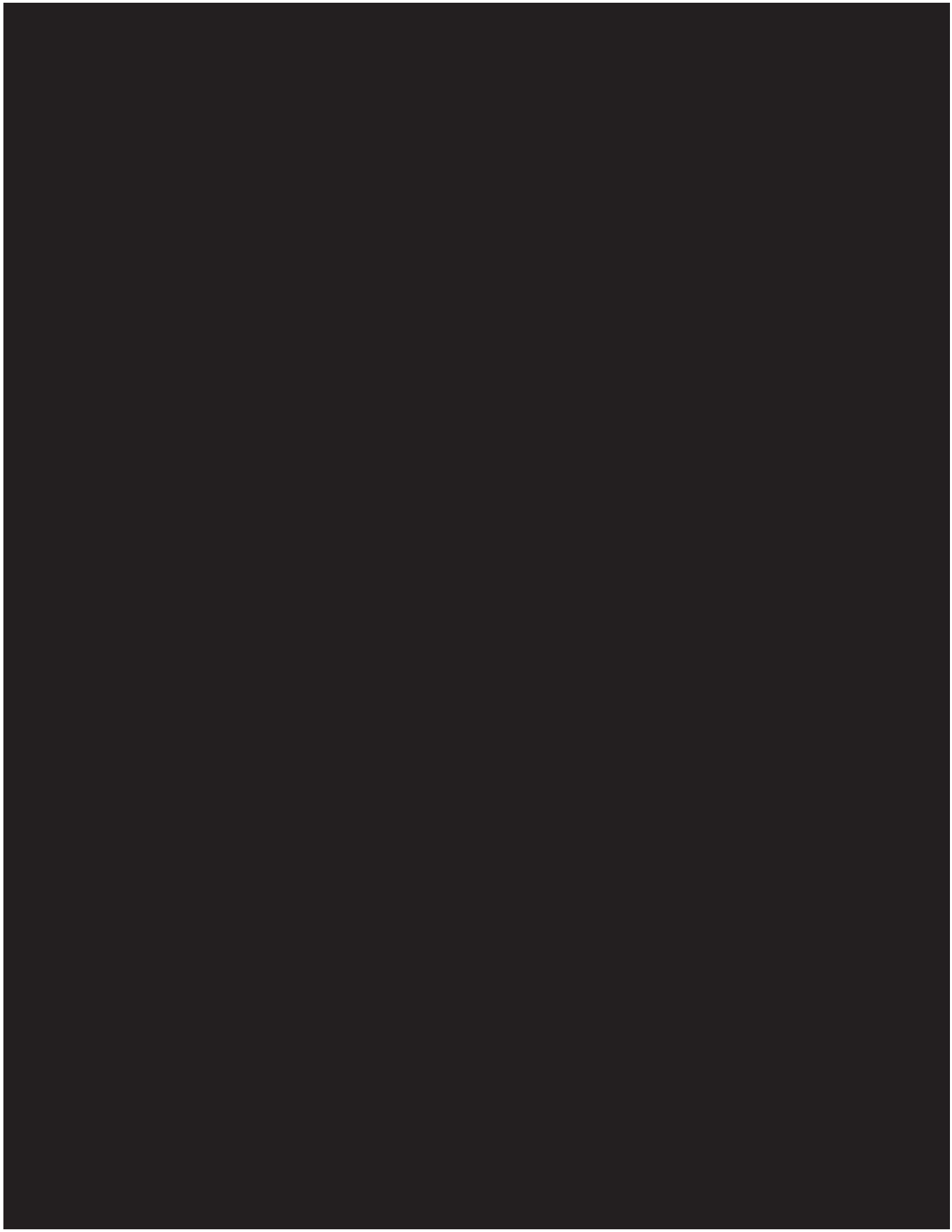
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Part III, Section J, Appendix C, C-140

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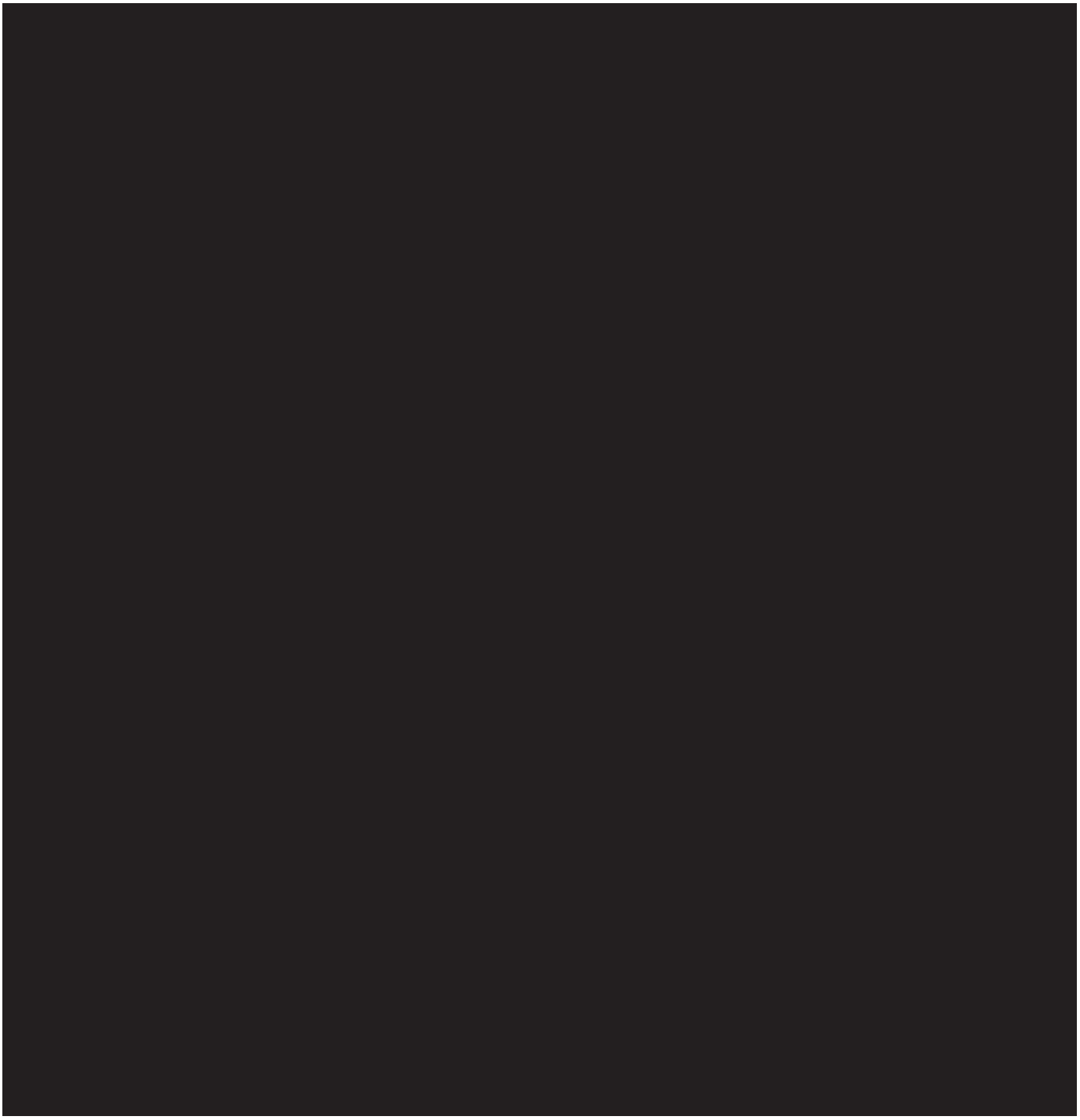
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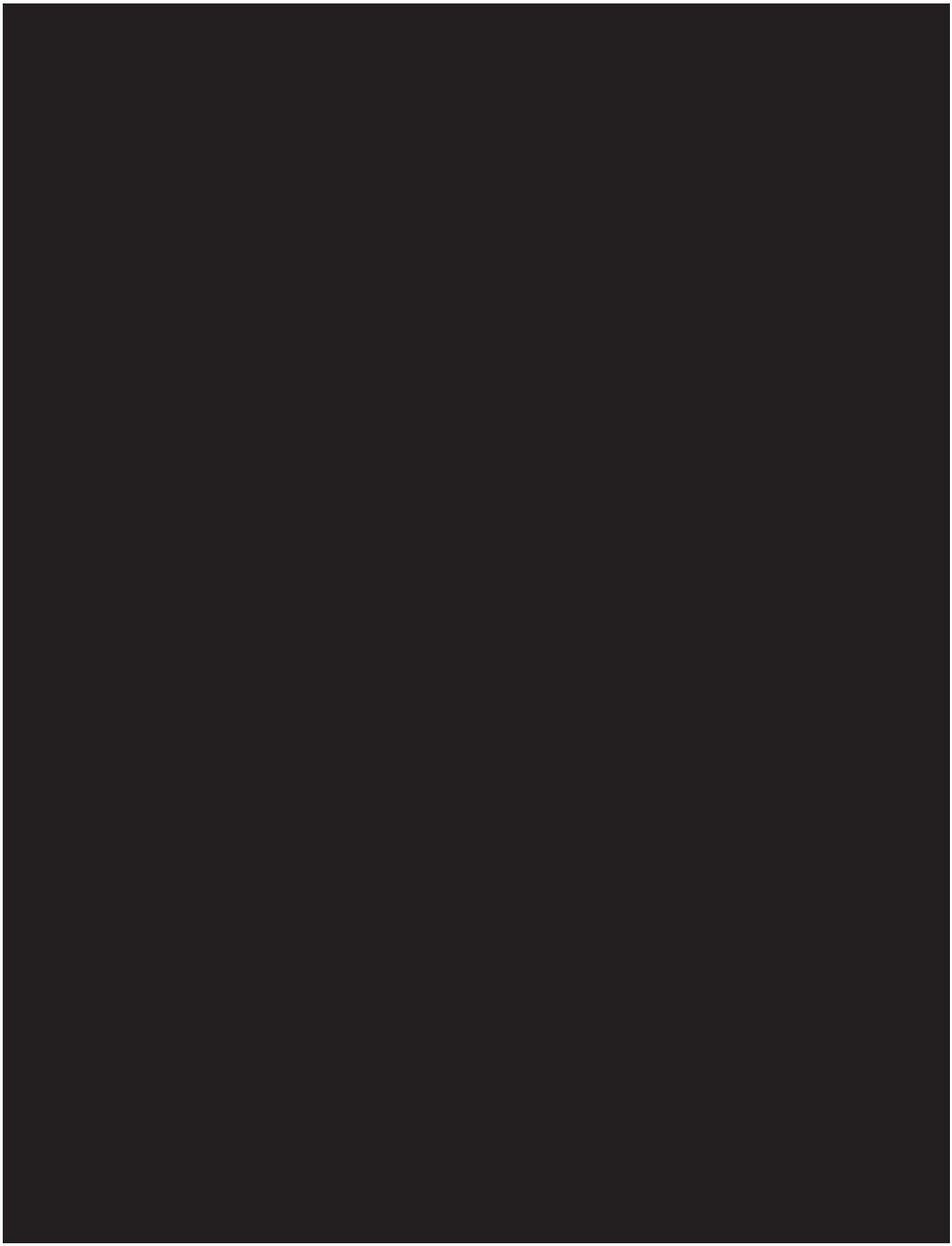
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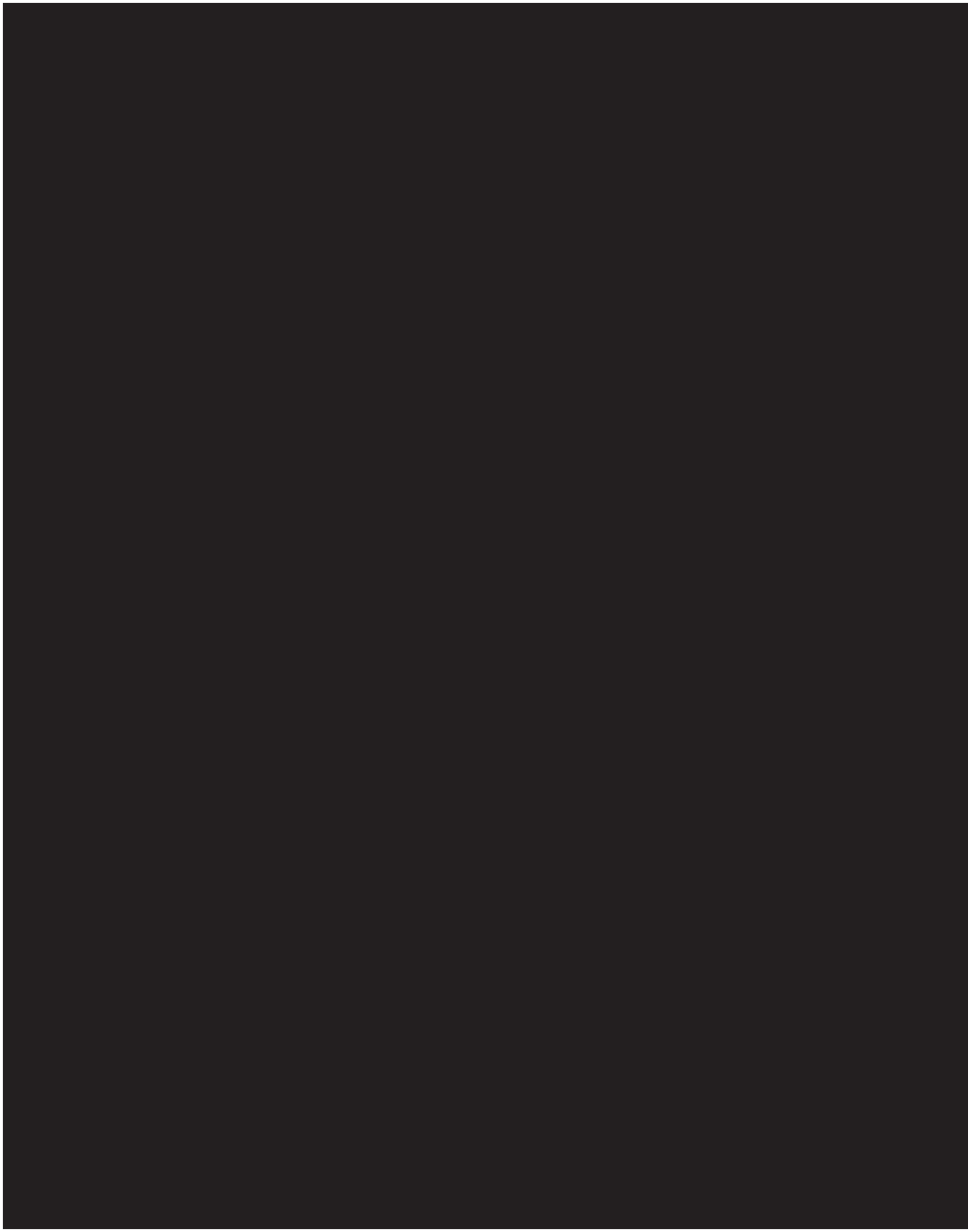
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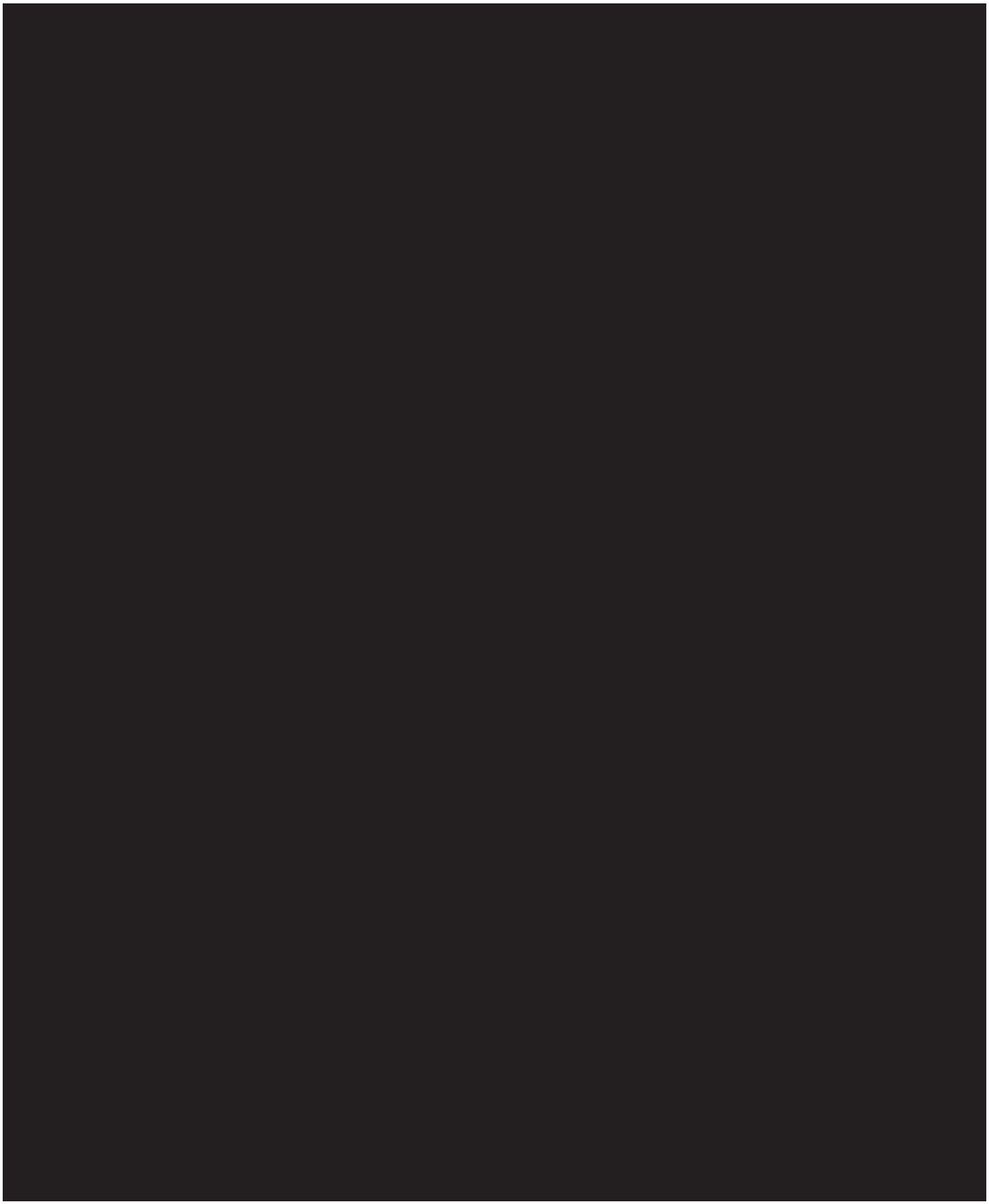


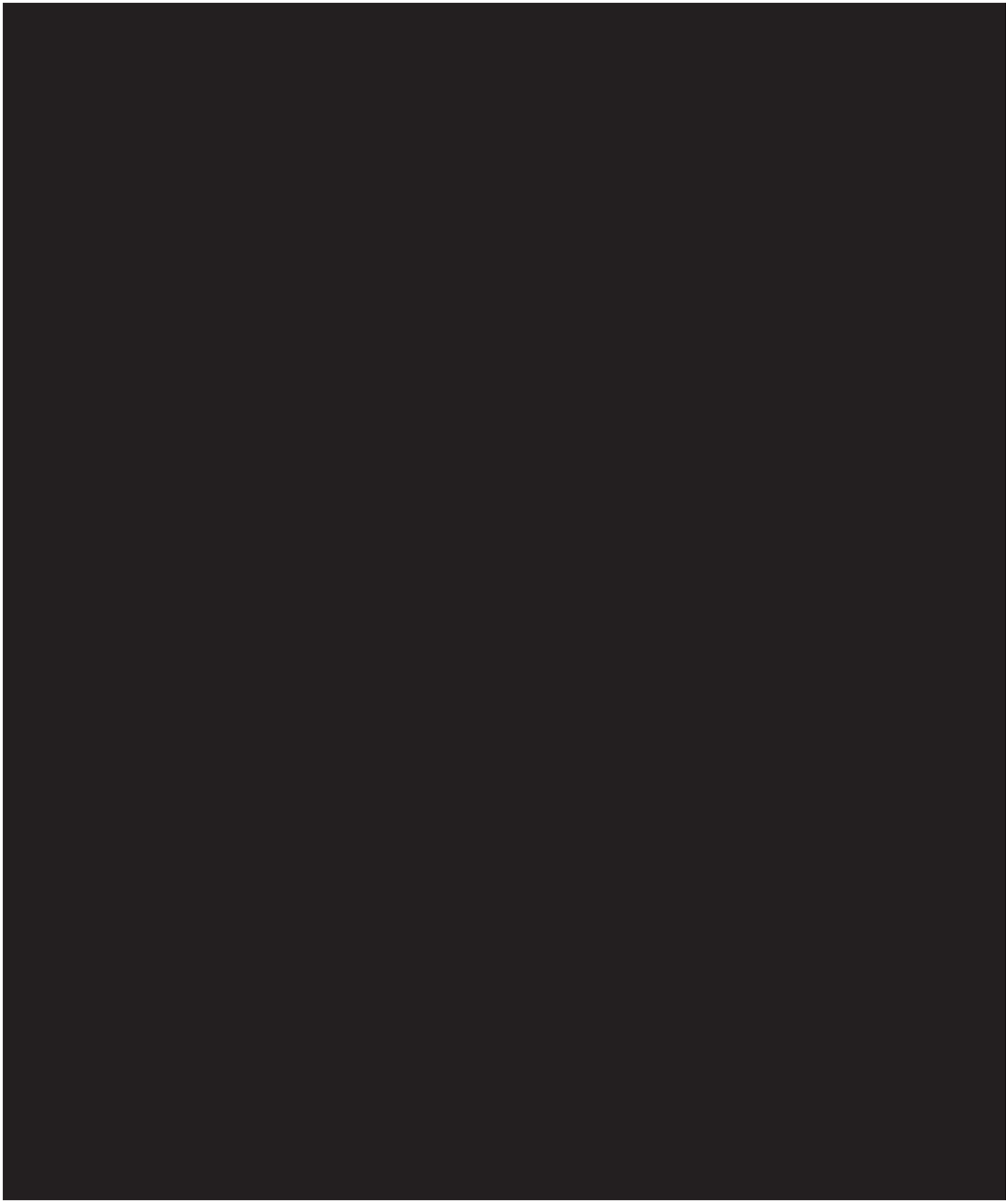
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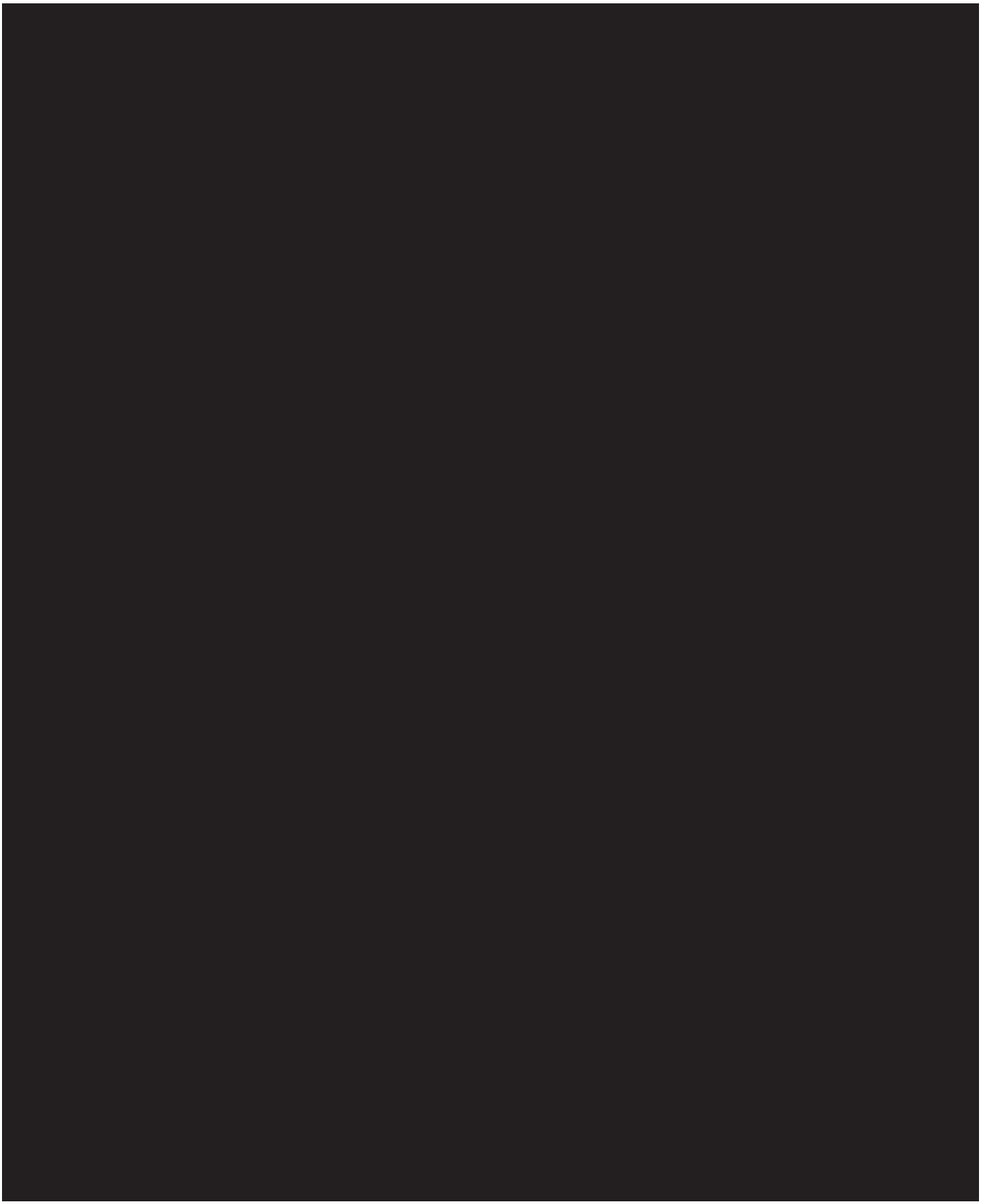
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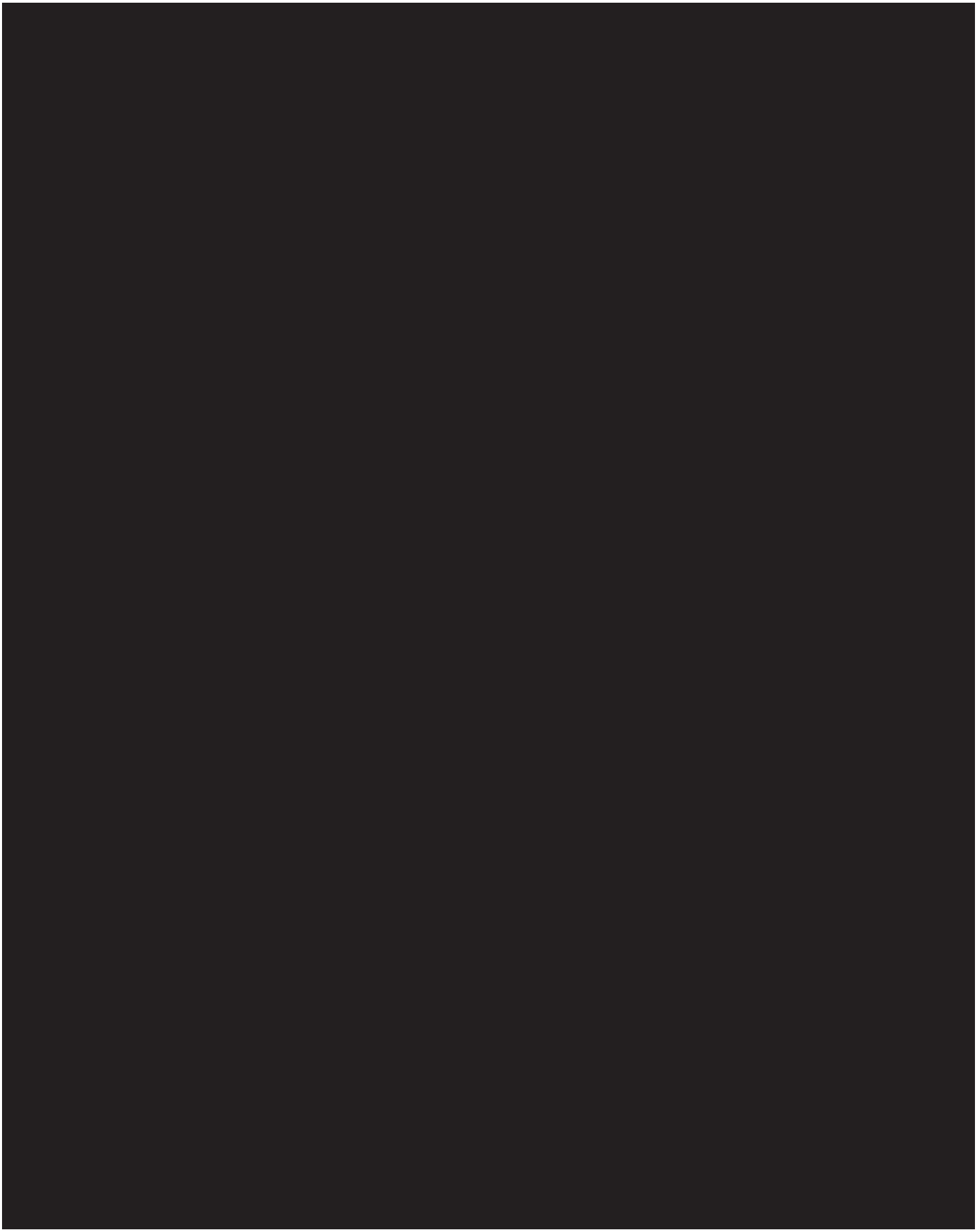


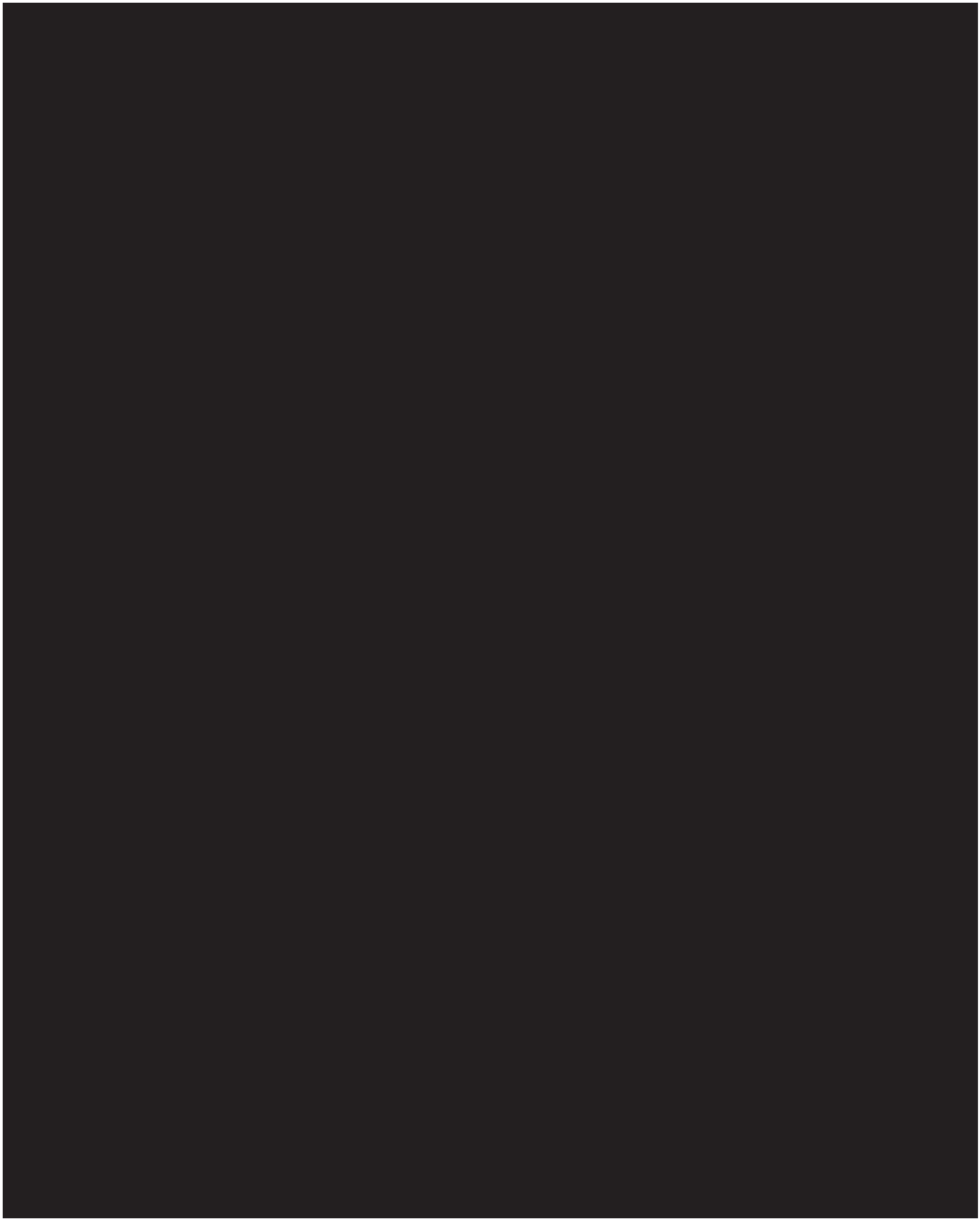


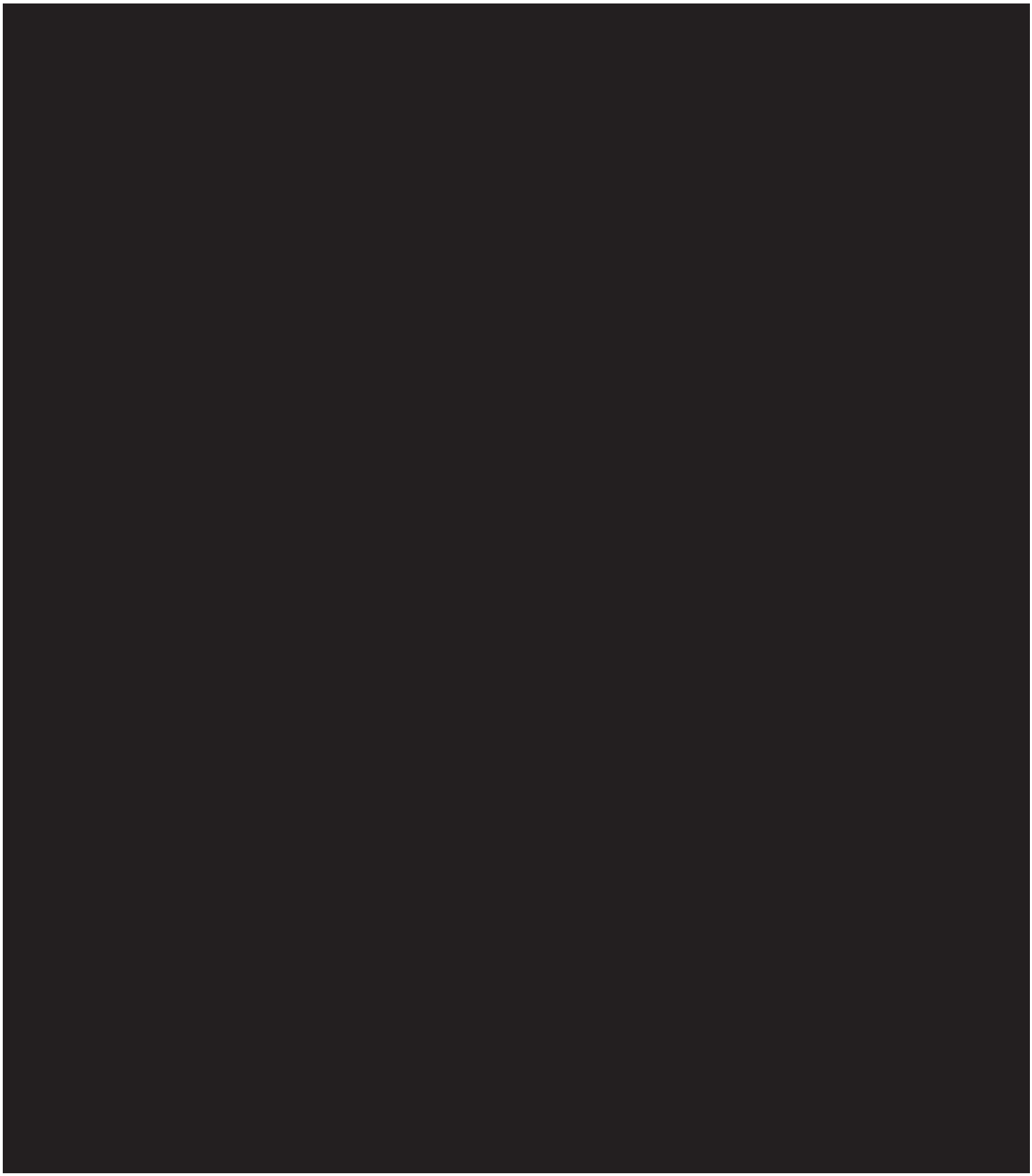












APPENDIX D.

MERGER TRANSFORMATION PLAN *[MODs 0050, 0121, 0133, 0165]*

[Incorporated by MOD 0050; Revised by MOD 0121; Replaced in its entirety by MOD 0133; Replaced in its entirety by MOD 0165]

Merger and Transformation Plan

Revision 2

Contract DE-NA0001942

SDN-25680-PLN-00003

prepared by
Consolidated Nuclear Security, LLC (CNS)

prepared for
US Department of Energy
National Nuclear Security Administration
NNSA Production Office

Revision Log

Rev.	Date	Issued for	Changes
2	6-December-2018	Terminology "true up" to current practice, non-intent change. Also incorporates revisions needed to address NNSA comments provided on October 23, 2018	
1	31-January-2018	Revision 1 incorporating NNSA comments	
0	1-May-2014	Base Submission	

This document contains CNS, LLC proprietary and/or business sensitive information.

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1.0 EXECUTIVE SUMMARY

The Merger Transformation Plan (MTP) describes CNS' approach to the merger of operations at the Pantex Plant and the Y-12 National Security Complex; steps CNS is taking to ensure we maintain critical skills and avoid impact to operations; how we will identify and streamline redundant technical and business operations; and the cost savings that will result from these efforts. The MTP is intended to be a high level document and includes selected elements of CNS' management approach and cost savings which were included in the CNS proposal that was evaluated for award. Further details regarding CNS activities related to the merger and transformation and our comprehensive approach to managing risk will be described in other documents prepared during the contract transition and execution phases. CNS recognizes the significant stakeholder interest in the consolidation of the Pantex Plant and the Y-12 National Security Complex into an integrated enterprise managed under a single contract and the associated potential for cost savings. The MTP is aimed at sharing the underlying methodology, processes, and guiding philosophy with a broader audience, including stakeholders involved in the operations and governance of the M&O contract. The MTP also documents the sharing structure for savings embodied within the original CNS proposal including alternative sharing arrangements that have been proposed by CNS and approved by the Contracting Officer. These alternative arrangements include one-year savings approaches for supply chain and benefits that overcome challenges in the execution of the costs savings program and enhance its benefit to both the Government and contractor. **Appendix 1** presents a crosswalk of each contract-identified requirement for the MTP and the location of each requirement within the MTP.

NNSA Goals	The CNS Approach "Run it Like Our Business"	
Improve performance in completion of missions for nuclear production operations	Protect and secure missions	Naval reactors discipline
	Revitalize performance	Outsource strategically
Transition/merge operations at geographically dispersed centers of excellence under a single contract	Booz Allen evaluation tools	Value stream mapping
	CNS team experience	Consolidated virtual organization
Reduce the cost of performing work	Culture change driven by proven techniques	Eliminate waste
	Match capacity with capability needs	Workforce incentives
Require actions that support operations as an integrated DOE/NNSA enterprise	Matrix management to eliminate silos	Redesigned approaches
	Enterprise baselines for all levels of the organization	Sustainable delivery of IT solutions

Figure 1 – NNSA Goals per Solicitation No. DE-SOL-0001458

The MTP is a companion document to the Cost Reduction Proposal (CRP), which is submitted and updated separately and includes a description of the specific cost savings initiatives to be implemented. The MTP provides an overview of the cost savings program and includes the timeline of projected savings for the potential 10-year term of the contract. The MTP serves as the CNS guideline to develop its annual savings targets that are implemented through the CRP and the associated initiatives. **Figure 1** identifies the CNS approach to the merger and transformation process, including executing the consolidation of two

sites under a single management structure, transforming site operations to create a more efficient and sustainable enterprise, and practicing continuous improvement.

The MTP is just one of several documents to describe how CNS will execute its cost savings program in partnership with NNSA over the life of the contract. CNS recognizes that the budget, scope, and specific actions to achieve savings will change over time. As such, CNS expects that the MTP will need to be revised periodically as budget and scope changes affect the underlying values and timing which make up the projected cost savings. The MTP will reference a number of other plans, policies, procedures, and tools which will be used to control and modify the baselines as they change over time. These include the Annual Controlled Baseline (ACB), CRP, the CRP Policies and Procedures (and its associated Cost Reduction Initiatives), Enterprise Risk Management, as well as the Change Control Process (and the associated Change Management Council) that will govern changes to these inputs.

CNS is committed to fulfilling expectations set in place by NNSA, including: mission fulfillment, safety standards, schedule compliance, and vigilant security. Additionally, CNS has charged its leadership at the highest levels to bring a sense of urgency to the effort that will foster innovative approaches to increase cost efficiency in serving NNSA. The leadership's cost efficiency goals intend to sustain NNSA operations and solidify the viability of the Pantex Plant and Y-12 National Security Complex for future administrations and national needs, both apparent and unforeseen. As CNS leadership creates the foundation of an organization built to secure NNSA's objectives, they will set in place a top-down structure inculcated with the purpose of honoring those commitments.

2.0 CNS APPROACH TO MERGER AND TRANSFORMATION

CNS is a partnership of organizations with shared values and aligned goals. These shared values are embedded in the CNS corporate culture and reflected in its description of the 'four imperatives': safe, secure, zero defects and deliver as promised. As their name implies, these four imperatives are central to the success of CNS and the Pantex/Y-12 merger and transformation, and they are an absolute necessity to satisfy NNSA requirements. As CNS approaches the issue of merger, transformation, and cost savings, these four imperatives are key in achieving not only CNS goals, but NNSA goals as well. This challenge demands an approach that is not just different from the previous management entities, but a superior approach set apart by unmatched expertise and resolve.

CNS recognizes the NNSA vision of operational efficiency, and is committed to streamlining site operations to establish higher productivity and realize lower unit delivery costs without impacting safety and security. To achieve these results, CNS will share resources that are more mobile, use consistent approaches to the maximum extent practical, and install a leadership team that is fully aligned with NNSA goals. Throughout the process, CNS will manage the merger and transformation of the Pantex Plant and the Y-12 National Security Complex without negatively affecting mission delivery.

To enable the merger and transformation activities, CNS is leveraging its corporate capabilities and approaches, including a number of tools and experiences that the CNS partners – Leidos, Bechtel, ATK, Search on Command (SOC), and Booz Allen — have used with success on other contracts and internal corporate initiatives. For example, CNS specifically designed its Performance Enterprise System (PES) by combining the best practices of Bechtel's Lean Six Sigma (LSS) program, Lockheed Martin's Operating Excellence Program (LM21), and ATK's Performance Enterprise System (PES) to create a tailored continuous improvement program for this contract.

Beyond tools, CNS brings a wealth of corporate experience and expertise to run NNSA's production enterprise with the same focus we use to run our businesses. Our confidence is based on the quality of our leadership team and in the success of the process brought by Booz Allen that has been proven in over 600 merger and transformation efforts. This confidence is demonstrated by the fact that Booz Allen is fully incentivized to achieve this end state — it earns its fee only from the CNS share of the cost savings it helps generate. Likewise, CNS is also fully incentivized to deliver the savings and guard against unintended consequences.

Through experience, CNS knows that merging effectively is problematic by virtue of the changes needed in both cultures and business systems. Sustaining initial gains made through the mergers increases the challenge. Studies show that 50% of all merger/acquisitions fail to deliver the established goals. CNS brings extensive merger-transformation experience and has designed a comprehensive approach to keep the organization focused on achieving and sustaining the goals laid out in NNSA's procurement and the vision for the future Nuclear Security Enterprise. Our structured approach will help CNS ensure:

- Merger activities across sites are done thoughtfully and will not only deliver near-term cost savings, but will set the stage for enhanced operational performance and safety that are sustainable.
- Organizations are right-sized to meet the needs of the combined enterprise, and, where necessary, processes are transformed through redesigned work approaches.
- People in the consolidated organization are proactively and positively engaged as critical stakeholders

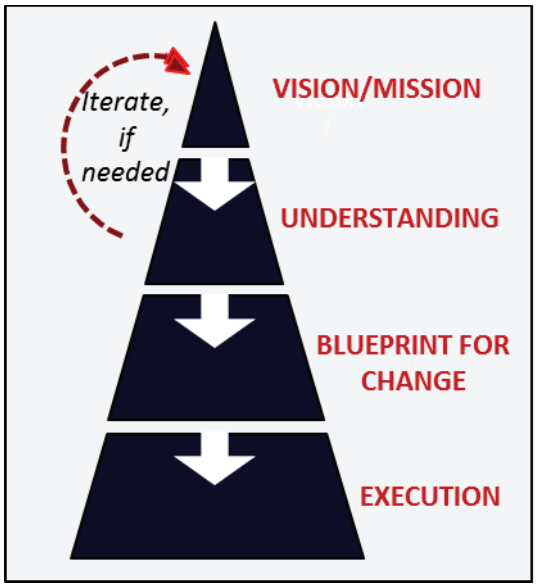


Figure 2 – Objective Driven Change Framework

Figure 2 depicts the Booz Allen Objective Driven Change Framework that CNS will implement to provide rigor and structure to our merger and transformation activities. This approach has been proven on hundreds of post-acquisition mergers and business transformations; each step of the process is supported by a suite of effective tools and guides that support planning, implementation, monitoring, and reporting. The framework includes four logical steps: setting the vision/mission for the desired change, creating understanding and consensus for the change, carefully laying out the blueprint for the change, and executing the change. Most importantly, the framework leads to sustained cost reductions while preserving mission accomplishment because execution of the mission is always the highest priority.

One of the first activities CNS completed under implementation of the Objective Driven Change Framework was the design of the CNS organizational structure. CNS started by setting the goals for the structure that included:

- Keep a strong focus on the missions. The missions are the reason for NNSA, the sites, and the workforce.
- Clearly translate the desires, expectations, and goals of the customer into actionable objectives for every level of the organization.

- Facilitate consistency of approaches across sites, programs, projects, teams, and work groups.
- Enable the merger of the two sites under a single contract, allowing consolidation and cost savings where possible without negative impact to the mission while allowing for future site expansion at NNSA's direction.
- Align authorities with accountabilities to empower decision-making at the lowest effective level.
- Increase employee engagement to achieve organizational goals such as efficiency; continuous improvement – enhanced security, upgraded safety, enriched quality, and compliance; and maximize value to the customer.

During this vision and mission stage, CNS set a critical standard by identifying the most advantageous and realistic future state of the organization. CNS has examined necessary criteria such as the capabilities demanded and finances required for the future organization. A coherent baseline was established and gaps from the current position to the future position were interpolated. This will allow CNS to ensure that a proper mix of crucial skill sets remain throughout the merger to maintain continuity, uphold current obligations, and ensure the viability of future work.

The organization, as shown in **Figure 3**[1], drives efficiency through a matrix structure. The organization is built around a core of Mission Delivery (i.e., Pantex and Y-12 Operations) with staffing tightly controlled in these areas to mitigate any risk to safety, security, and quality. The supporting organizations are right-sized to ensure that Mission Delivery is fully enabled to perform, have the requisite security in place, and have appropriate oversight to ensure all requirements are met. Because of their importance, we are making minimal changes to Mission Delivery Organizations under the consolidated contract. In future years, in cooperation with NNSA and drawing on the full knowledge of the incumbent workforce, we will use value stream mapping to delineate each step of each mission, handoffs between sites, overlapping responsibilities, and interactions with the design labs. We will then identify which support and oversight functions "touch" those value streams and how they contribute to success. This approach will enable us to recommend additional cost savings initiatives that will take transformation to the next level by optimizing the direct mission value stream.

[1] Since the organizational structure is subject to change, the key elements that will remain relatively consistent are the executive-level structure and their secondary-level structures (e.g. Mission Engineering, Mission Assurance, etc.). The tertiary structure may be subject to change as staff continue to transition and management is finalized; for example, Ethics and Internal Audit were previously organized under Mission Assurance but now stand independently.

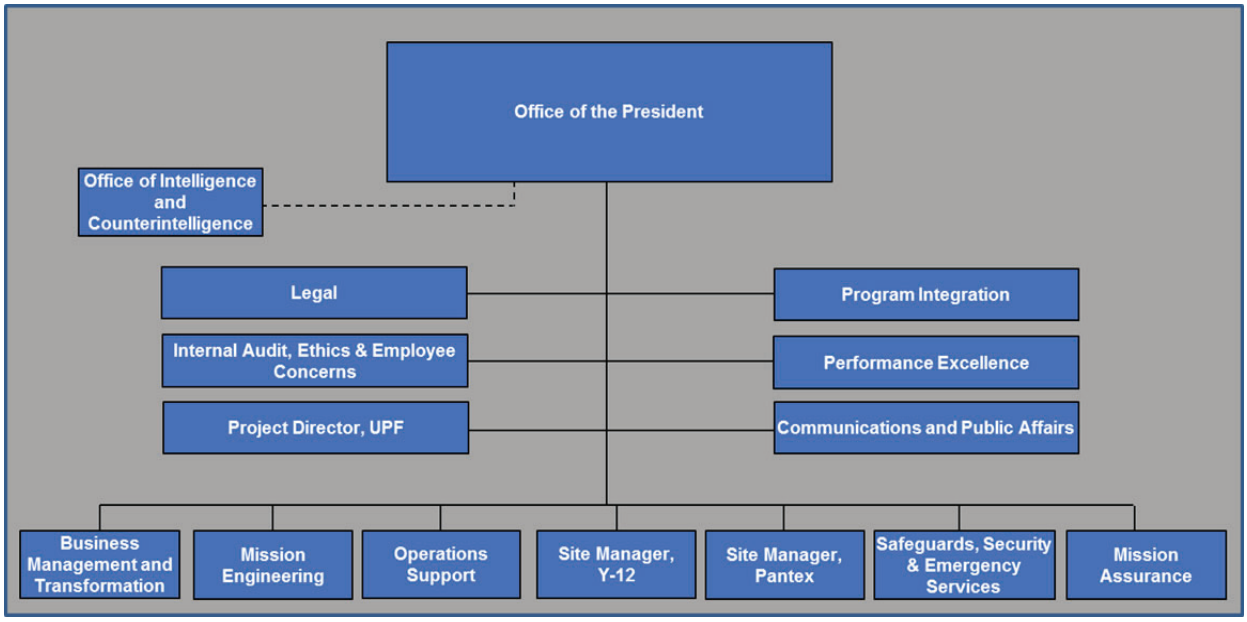


Figure 3 – CNS Organization Chart

As previously noted, there will be zero negative impact to the mission given the design of the CNS approach to merger and transformation. Central to this mission-oriented objective is developing and retaining critical skills. The ***CNS Staffing Plan***, submitted April 8, 2014, provided our initial approach to ensure that we will at all times have the skills needed to accomplish the mission of the Pantex and Y-12 sites. This Staffing Plan described the process and criteria by which CNS has identified current and future skill sets to achieve the mission and goals of NNSA and CNS. This ongoing process will operate in concert with the annual ACB process and merger and transformation activities to ensure that the critical skills necessary to maintain capabilities are not adversely impacted by the transformation and cost savings efforts.

2.1 Critical Skills Retention and Development

CNS will ensure that critical skills necessary to maintain capabilities are available consistent with contractual Statement of Work Requirements. CNS defines Critical Skills as the skills required to support the unique DOE mission that, based on market demand, are difficult to recruit, retain and/or develop. CNS identifies and tracks all skills using the Common Occupational Classification System (COCS) in accordance with DOE O 350.1 Contractor Human Resources Management Programs, and Federal Register, Vol. 61, No. 44, p. 8600.

The Commission on Maintaining United States Nuclear Weapons Expertise (a.k.a. “Chiles Commission”) submitted a report in compliance with the National Defense Authorization Acts of 1997 and 1998. These acts directed us to “Develop a plan for recruiting and retaining within the Department of Energy (DOE) nuclear weapons complex such scientific, engineering and technical personnel as the Commission determines appropriate in order to permit the Department to maintain over the long term a safe and reliable nuclear weapons stockpile without engaging in underground nuclear testing.” CNS accomplishes this through workforce planning with an emphasis on critical skills as defined above.

CNS recognizes that the workforce, including its composition and capabilities, is an essential component of the nuclear production sites and the national asset that they represent. CNS uses a strategy for identifying the appropriate skill mix needed to accomplish current and future mission

work and has established a variety of methods to attract, recruit, develop and retain those skills. This strategy features the development of organizational baselines and staffing models to better define and document the skills necessary for accomplishing the mission. The strategy also includes the development of increasingly sophisticated attrition models to inform the planning and transformation efforts. This comprehensive planning provides a dynamic map to workforce restructuring, realignment, staffing, and employee development. CNS continues to partner with universities and military job fairs to provide a pipeline for the critical skill needs for future missions. In addition, compensation and benefits are monitored to stay competitive for talent in the lean technical market.

2.2 Managing the Transformation

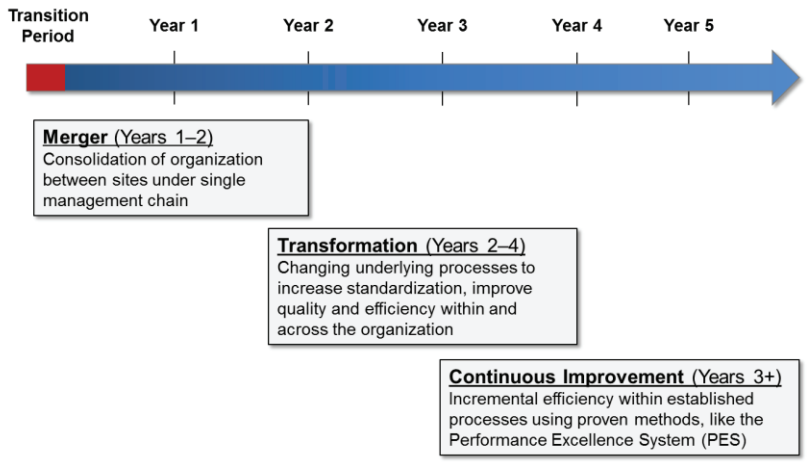


Figure 4 – Transformation Phased Approach

In order to build a consensus around the transformation vision, CNS is developing a case for the changes necessary to enable the organization's long term viability and success. As shown in **Figure 4**, these changes follow a logical sequence of activities related to the merger of the sites (Years 1-2), transformation of the underlying business processes (Years 2-4), and continuous improvement initiatives (Year 3 and beyond). As part of the contract transition activities, CNS socialized necessary organizational changes with stakeholders (including regulatory interfaces) and translated the vision into specific targets that can be communicated to managers and staff. CNS will maintain relationships and regulatory interfaces and recognizes the importance of assuming responsibility for permits with local, state and federal entities, and other DOE offices. The CNS leadership structure has identified its regulatory interfaces, has engaged in dialogue during the Transition Phase, and will continue to interface during contract operations. If disparity exists between the vision and mission and these understandings, CNS will iterate to further develop the vision and mission, creating consensus and eliminating potential obstacles to implementation of the cost savings program.

As the vision and mission are socialized and consensus is developed within the organization, a blueprint for change emerged that supported the development of the initial CRP submitted upon contract turnover on July 1, 2014. This blueprint for change serves as an internal management tool to help understand how the future organization will operate, what new capabilities will be built, how financial targets will be accomplished, and how the accomplishments will be measured. The future organization will be appropriately equipped and resilient to meet the demands inherent in its operational ecosystem. This blueprint will illuminate steps the organization's management must take toward accomplishing its goals.

The blueprint shows how CNS will perform short-term re-engineering of business processes to ensure that all commitments are honored through the transformation. To complete the transformation, CNS will lead a long-term restructuring process to permanently equip the organization for success. Through execution and for the duration of the contract, CNS will track the organization's accomplishments. The accomplishments will create substantial increases in the organization's financial capabilities and operational efficiency, which will allow CNS to reduce costs in line with NNSA goals and the cost savings proposed by CNS in response to Solicitation No. DE-SOL-0001458. These efficiencies will be formally documented by Cost Reduction Initiatives (CRIs) and their associated activities to provide transparency and traceability of savings to the NNSA.

CNS also brings a vast reach-back capability to engage specialists and experts from parent organizations to address specific issues within multiple fields of expertise. This commonality lends itself to a greater leveraging of commercial best practices where the corporate experience of the CNS companies can be leveraged. CNS recognized this opportunity and installed a management team with a powerful blend of NNSA and commercial expertise and experience. Through the combined experience and networks of these leaders, CNS will be proactive in bringing the appropriate corporate capabilities and resources to enhance mission delivery and fulfill CNS' commitment to run the sites like a business. Further, CNS has established a corporate Board of Managers with senior executives from the parent companies to ensure that these commitments are met. The parent-companies of CNS are poised to augment CNS with additional resources to cover high-demand periods during the contractual period of performance. These resources are proven effective through the parent companies' multiple diverse contracts, both historical and ongoing.

In addition, CNS intends to install a Technical Advisory Board (TAB). The TAB serves as an independent resource to advise the CNS on strategic direction, formation of a more effective production enterprise, nuclear production challenge resolution, and risk assessment.

3.0 EXECUTION OF THE MERGER TRANSFORMATION PLAN

As noted above, the MTP includes the timeline of projected cost savings and serves as the basis for developing the CRP for the contract. CNS has developed and provided annual updates to the CRP and will continue to do so at least annually through a formal Change Control Process (CCP). The CRP will include information about the Cost Reduction Initiatives (CRIs) that CNS proposes to execute during the upcoming year in order to meet or exceed the saving targets proposed in the MTP. These CRIs will be progressively elaborated throughout the year as part of the trimester reporting process.

The basis of the cost reduction activities are the individual CRIs that describe the actions and expected savings outcomes undertaken by CNS. CNS provides annual revisions to its CRIs as part of the CRP process. If individual CRIs are not approved for execution, CNS will re-examine the CRIs in question and re-submit revised and/or additional CRIs to make up the shortfall. CNS anticipates that it can successfully iterate the CRI process as needed if some initiatives are not implementable because our current savings estimates are conservative in nature and do not yet capture all of the savings potentially available to NNSA. Should alternative initiatives not be sufficient or timely enough to generate the necessary savings, CNS may seek adjustments to the overall projected savings. Such changes would require agreed upon adjustments to the cost savings curve as well as the CSIF table (and associated share and duration assumptions). CNS also expects that changes in the ACB, in terms of budget or scope, may also require revisions to the MTP on a periodic basis.

It is also understood that there is inherent risk in execution of a CRI and that CNS and NNSA both own this risk. Such elements of risk may be incurred during:

- Implementation of the CRI
- Determination of the cost of implementation
- Ability to demonstrate savings

CNS understands that such risk makes the Enterprise Risk Management process (outlined in Section 5) as well as governance of the merger and transformation activities even more critical.

4.0 GOVERNANCE OF THE MERGER AND TRANSFORMATION ACTIVITIES

Since we will have multiple merger and transformation initiatives staged for implementation or in the process of being implemented at any particular time, CNS created a system of management and controls in the stewardship of the organization. Governance will foster trust and confidence between NNSA and CNS by creating shared expectations, appropriately delegated authority, and accountability. Governance processes will be consistent with defined contractual requirements and NNSA governance documents, focusing on transformation activities that maximize the ability to complete the mission in a way that ensures effective and efficient stewardship of the taxpayers' money. These governance processes will streamline operations and reduce costs to maximize mission accomplishment through a common understanding of expectations and performance accountability, supported by a strong Contractor Assurance System (CAS). Governance teams include the Change Management Council (CMC), Organizational Health Review (OHR), Strategy Council, Leadership Council, Resource Council (RC), Risk Review Board (RRB), and Executive Leadership Team (ELT). These teams ensure alignment of objectives among CNS organizations and with the CNS Business Strategy; accommodate planned and emergent changes to federally supplied funding; ensure CRIs are individually and collectively consistent with CNS safety, security, mission delivery and quality expectations; and seek continuous improvement in CNS cost efficiency. The teams control the coordination, governance, configuration management, and change control of all processes. They deliver a common framework for all documentation for a simplified "single-process" approach. Not only do the governance teams approve individual cost savings plans, they also look for potential synergies and conflicts between multiple efforts and protect against unintended adverse implications that might result from implementation of the initiatives. When CNS accepts an initiative and it is approved through the NNSA scope authorization process, line management takes the actions needed to accomplish it without negatively impacting the mission.

The RRB meets periodically to review risk mitigation plans and assess the impact of ongoing initiatives on the safety, quality, and productivity of the consolidated organizations. OHR meets monthly to provide organization status including risk mitigation, project execution, coordination with other NNSA sites, as well as reviewing top level organization metrics. CNS currently has governance charters, policies, and procedures in place for managing cost savings. In the latter years of the contract CNS will pursue ISO 9001-compliant tools allowing the RRB to monitor and control process drift, perform regular follow-up, and provide risk-informed oversight. NNSA is encouraged to participate in most CNS governance and oversight meetings to provide the customer perspective.

CNS plans to use the CMC as the primary governance mechanism for reviewing and approving scope changes and the Resource Council for cost savings initiatives. However, CNS also recognizes that there may be circumstances where urgent scope changes may need to be implemented in advance of the CMC meetings and approval process. In such circumstances, CNS will account for changes by identifying whether the change was directed by CNS or NNSA and, if NNSA directed the change, CNS will document the name of the individual that provided direction.

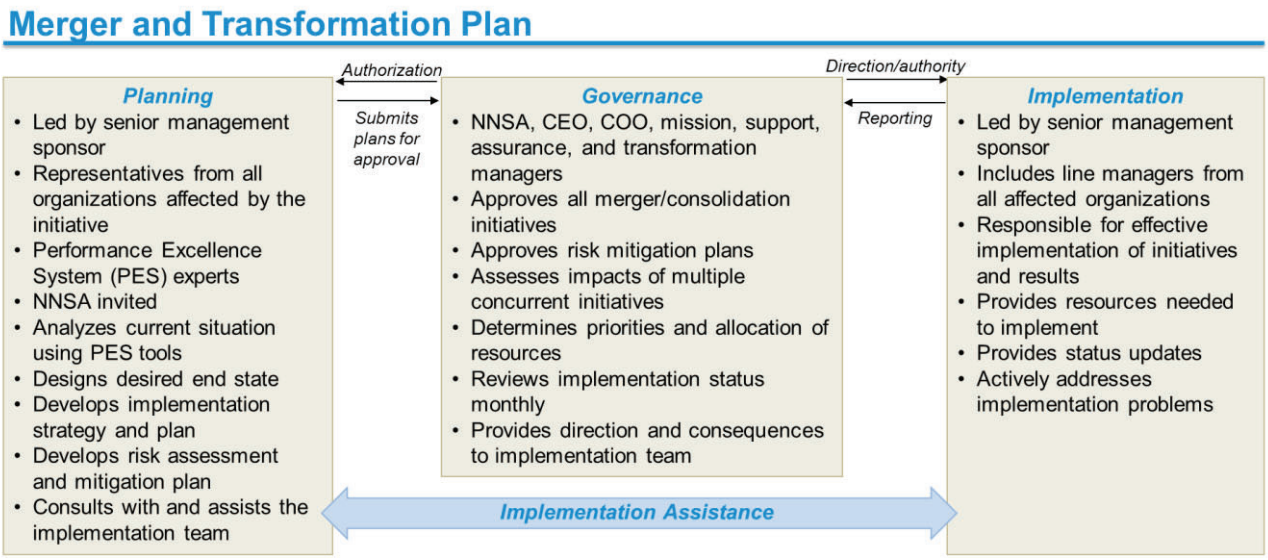


Figure 5 – Management and Governance of Change Initiatives

This information will be made available to the Contracting Officer. Changes credited to the Government that are unsupported may be a basis for rejection.

CNS uses a graded approach to managing initiatives based on the complexity, scope, risk, and timing of each initiative. Initiatives with broader reach across the enterprise and greater risks of implementation will receive greater involvement and oversight from the OHR and RRB and a greater allocation of resources for planning and managing the initiative. In all cases, the same tools are used—the Performance Enterprise System (PES is an enterprise-specific continuous improvement program) tools and the experts available through the Transformation organization will bring process discipline and the outside perspective that we have found is needed to ensure that planning and implementation lead to real and permanent cost reductions.

CNS recognizes that it is not cost effective or appropriate for NNSA to review every Baseline Change Request (BCR), so changes exceeding a certain threshold will be submitted to NNSA for review. The approval process with NNSA is included in the NNSA Cost Savings Program Process, Procedures and Requirements for Contract DE-NA0001942 Clause I-19 Cost Reduction NPO-Desk-Aid-006, Rev. 0 dated January 2017. The NPO Desk Aid expands upon how CNS will work with NNSA to meet the requirements outlined in I-19(e) of the contract.

To implement the initiatives we have identified, as well as any identified in the future, we will use the process defined in **Figure 5**.This process recognizes that there have been and probably will be different groups developing and implementing merger/transformation ideas. Our Performance Excellence organization serves as liaison and intermediary between these groups. The figure shows how these planners, implementers, and change managers work together to ensure that we deliver on our transformation goals without creating unintentional conflicts or impacting performance in other areas. Our merger and transformation initiatives are managed within the various CNS organizations with clear lines of responsibility and accountability.

The vice president equivalent or their designee in each CNS organization assesses the current situation, designs the desired end state, develops the implementation strategy and plan, and develops the risk mitigation plan for the initiative. The risk owners work with the Performance and Risk Management organization to assess the adequacy of the risk mitigation plan and minimize the

potential for concurrent initiatives to affect the ability of the enterprise to execute its mission safely and securely.

4.1 PES Continuous Improvement

Performance Enterprise System (PES) is CNS's strategy to drive improvement, efficiency, and cost savings across the organization. The PES model relies on a strong sense of **Enterprise Alignment** achieved by a strategy deployment focused on delivering **Customer Value** and **Business Results**. Execution translates goals and objectives into actions and metrics at every level of the organization while providing for regular structured follow-up and escalation. The following are the key components of the PES program which are detailed in this section:

- Bottoms-up Responsibility
- Lean Six Sigma (LSS) Office Roles and Responsibilities
- Mission Area Roles and Responsibilities
- Tailored Communication and Deployment
- PES linkage with the MTP/CRP

As part of its strategic deployment, PES connects with the CNS strategic objectives and the annual Cost Reduction Proposal to ensure flow down of goals and objectives. Its mission is focused on engaging employees in order to identify, refine, and implement process improvements to deliver customer value with uncompromised safety, security, and quality. PES is evolutionary to existing strengths at Pantex and Y-12, and yet is unmistakably capable of providing a framework to engage the entire organization to deliver on continuous improvement commitments. PES provides an approach to help achieve near-term transformation goals (integration and cost-efficiency as provided in the MTP/CRP) and long-term, sustainable continuous improvement. The effective deployment of PES across the CNS enterprise, coupled with existing improvement methodologies, will enable CNS to identify and proactively address opportunities to streamline processes and eliminate redundant technical and business operations.

While PES utilizes Lean Six Sigma (LSS) methodologies to identify, evaluate, define, and implement process improvement, from a strategic perspective, it functions as one CNS system and one CNS voice with all employees at the center of the model engaged in continual improvement of their work in collaboration with leadership and supported by LSS experts. Through the engagement of employees and with the use of expert LSS facilitators, as well as LSS tools and workshops, CNS will identify cost reduction and efficiency improvement opportunities, as well as facilitate integration of plant-specific processes into single enterprise-level processes. CNS will coordinate, launch, and manage improvement projects that include Value Stream Maps (VSMs), Kaizens, Rapid Improvement Activities, and business cases to drive improvements and integration across CNS. The LSS facilitators will use appropriate tools from their toolkits, regardless of the source. The approach and tools are to be applied in an optimal manner based upon the scope to be accomplished.

The PES program will maintain the same Y-12/Pantex expert resources (e.g., the Master Black Belt, Black Belt, and Yellow Belt facilitators) while enabling employees to have the proper authority and additional ability to improve their work. Cross-functional and cross-plant Continuous Improvement (CI) teams will be utilized to ensure the correct process performers and stakeholders are involved in arriving at an optimal solution. These teams are assembled at the discretion of line management (at various levels) to address challenges faced by the workforce (i.e., completion of merger/transformation tasks, achieving cost efficiencies, safety/security/quality enhancements, and time/waste reductions). The CI team participants will be determined by the scope and complexity of the task. The tasks will have a defined starting point and ending point to enable team members

and line management to measure the success of the initiative. The team will analyze the current situation/process, determine changes that are needed, and present the results to affected line management for approval. Implementation responsibility rests with line management (who owns the process and resources for change). The use of CI teams empowers line management, at all levels, to meet their assigned mission delivery goals while reducing costs to accommodate challenging budget targets.

Business leaders will be used as a key resource for employees such that they will be able to remove old and new process obstacles in order to improve their work life. Essentially, PES is a mental model on how staff will think about and act to improve their work while doing their work, and, ultimately, while being recognized for their efforts. See **Figure 6** for a visual depiction of this approach. It is continually driven by CNS employees, stays in alignment with CNS's strategic vision, and self identifies improvement opportunities. **Figure 7** illustrates the integrated approach for cost savings.



Figure 6 – Performance Enterprise System Process

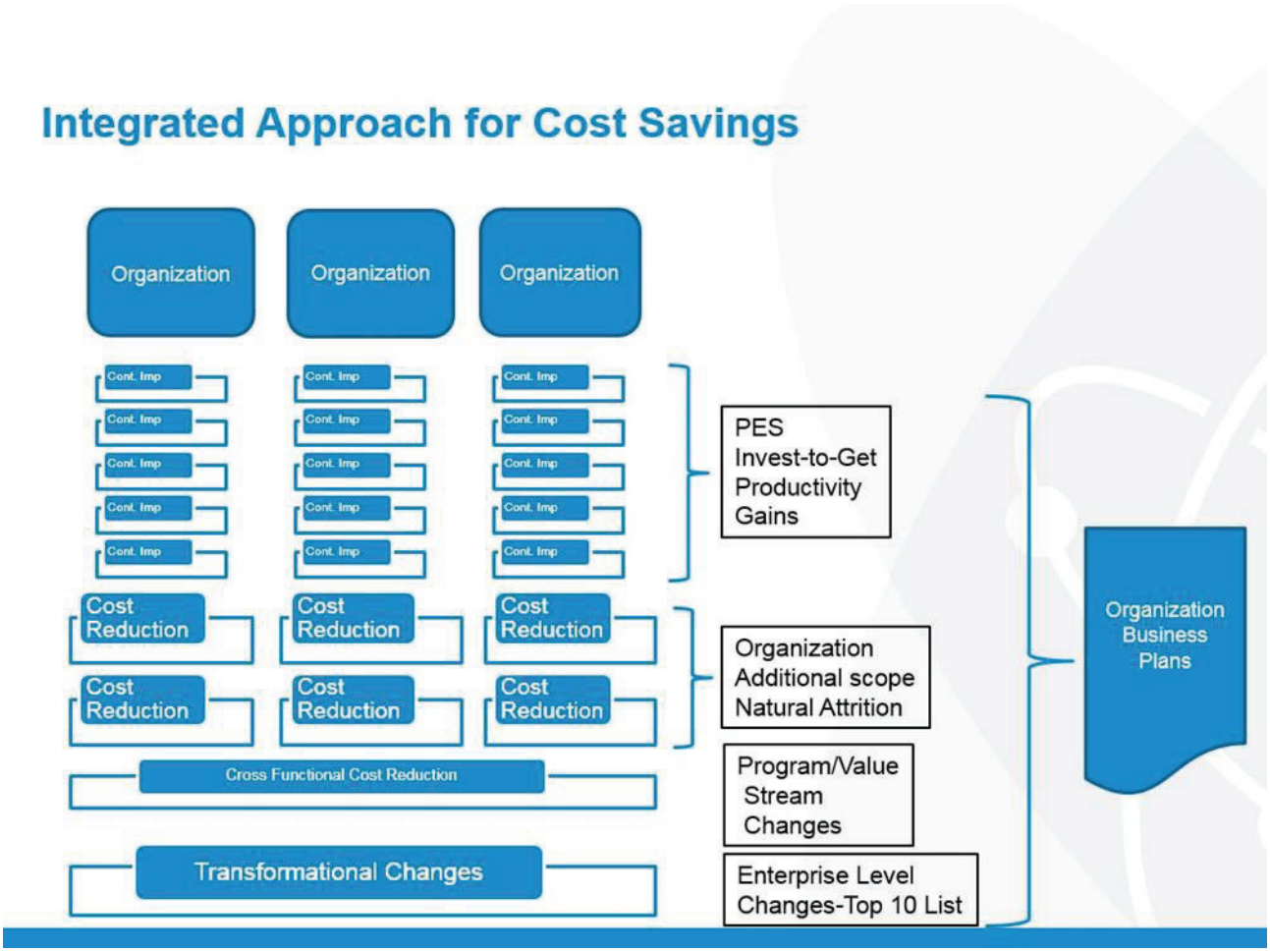


Figure 7 – Integrated Approach for Cost Savings

The LSS Office will develop intellectual capital and build standardized yet flexible structures and processes to not only launch and lead improvement efforts independently, but also to assist business leaders in executing their individual CRIs and other operational improvement efforts[2]. Moreover, it leverages current "Best-Practice" corporate tools and processes taken from all of the CNS partners. CNS will institute a Fellowship Program, as described in the proposal, which will engage our employees in expanding their horizons, provide exciting opportunities for growth, expose them to new ways of getting work done, and spike the organization with change agents.

Relevant and verifiable metrics will be used from inception to completion in order to promote continuous evaluation to identify merit, track progress, and establish visibility. The traditional use of only "output" metrics, such as "tasks completed," will be expanded. Both "Quality" and "Performance" metrics will be developed which not only focus on "outputs," but also focus on inputs as well as leading indicators to better mitigate issues before they impact final production. In addition to the traditional simple "count" metrics, "efficiency" metrics will be developed not only to manage the volume of work and production, but also to show how efficiently CNS works. This is critical to understanding our true performance levels.

[2] The CRP Policies and Procedures document provides additional explanation on the linkage between PES and implementation of the CRIs.

To encourage immediate "buy-in" from the CNS stakeholders and workforce, metrics, target baselines, incentives, training, etc., will be used to facilitate a bottoms-up approach in order to encourage employees to engage in the PES program. In the future, PES will generate support by training staff to ensure they are prepared to collaborate in the improvement process. For example, staff at all levels will be encouraged to complete appropriate LSS training for their specific position and then collaborate with their leaders and team members to actively search for improvement opportunities while ensuring mission success. Successful LSS projects and events will be celebrated throughout the organization and institutionalized and replicated across not only the individual locations, but across both Pantex and Y-12, where possible, so that the organization learns as quickly from one another.as possible. In addition, a program for collection, disposition, and execution of employee improvements for cost efficiencies and removal of frustrations will be employed.

While PES will be critical to continuous improvement and alleviating roadblocks to efficiency, it should be noted that there is a significant organizational culture aspect to PES. The LSS Office will work closely with senior leaders and stakeholders at all levels. LSS will provide reach-back support for mission efforts as well as other pro-active support such as conducting formal LSS training, conducting informal brown-bags and workshops, and leveraging all-hands meetings and other forums to keep the organization energized, focused, and involved in driving improvements. PES will encourage employees to engage in the program at many different levels of effort (LOE), allowing them to be trained in the continuous improvement concepts and take ownership for their ideas. Ultimately, at the end of the improvement projects, results will be shared with all participants, employees, and stakeholders, ensuring transparency in the program. As the program is executed, it will influence organizational culture by emphasizing elements such as employee/wellness initiatives, facility improvements, special recognition awards, etc. showing a true cadre of employee focus and process improvement.

In order to execute PES and ensure that all parties are engaged, a comprehensive deployment approach continues to be refined. To ensure a consistent message tailored to target audiences in all parts of the organization, various methods are being utilized to share PES information and successes such as leader communications, all hands messages, FAQs, SharePoint sites, newsletter articles, project updates, and customer communications.

5.0 ENTERPRISE RISK MANAGEMENT

CNS is aware that the merger of operations at the Pantex Plant and the Y-12 National Security Complex, the streamlining of technical and business operations, and implementing a cost reduction program could increase the likelihood or consequence of an adverse outcome. CNS's Enterprise Risk Management Office (ERMO) is actively engaged with risk owners and stakeholders to proactively, and continuously manage these threats, while at the same time identifying and exploiting opportunities to improve operations, enhance mission accomplishment, and achieve cost savings.

ERM processes are intended to deliver improvements in the following business categories.

Efficiency

- More efficient utilization of limited resources due to standardized processes, standard tools, and matrix management
- Focus on lower cost prevention strategies rather than higher cost reaction strategies
- Reduced likelihood of operational loss

Decision Making

- A more realistic view of risk due to a focus on the interrelationship and interdependency of many risks as opposed to single, isolated risks
- Improved decision making, planning, and prioritization through the use of Risk Based Decision Making
- The ability to aggregate and disaggregate risk supports cost-benefit and other analyses

Communications

- Fewer surprises (more predictable) due to the proactive management of threats and opportunities
- Rapid notification of emerging risk through a formal escalation process
- Rapid assessment of risk profiles through standardized reporting

Planning

- Assisting organizational management to understand the potential severity of risks, and to develop focused response plans in line with the organization's risk appetite and tolerance
- Improved contingency planning to guide the organization through crisis should a high impact event occur
- Reduced crisis management and firefighting

Performance

- Improved return on investment by placing emphasis on the identification and management of opportunities
- Reduced probability of poor organizational performance

As powerful as ERM is, it is important to remember that it is not a crystal ball.

The risk management process will be fully integrated into CNS baseline management. Risk shall be a standard topic in all progress review meetings, ensuring constant management attention, action, and visibility to CNS and NNSA management.

Organizational managers are accountable for owning the risks that affect their work scope responsibilities and for systematically working to reduce or eliminate threats and realize opportunities.

When only the word "risk" appears, it is implied that both components of risk are included – threats and opportunities.

5.1 Enterprise Risk Management Processes

CNS's ERM processes are compliant with the ANSI (American National Standards Institute) national standards for risk management, project management, program management, and portfolio (enterprise) management. These standards have been developed in collaboration with industry practitioners from around the globe, based on current trends and practices that make their organizations successful. The output of this collaborative process is the documentation of currently recognized "best practices".

5.1.1 Operations, Project and Program Risk Management

The risk management process that will be employed for operations, projects and programs is illustrated in **Figure 8**. Each process is further elaborated in CNS Enterprise Risk Management Command Media.

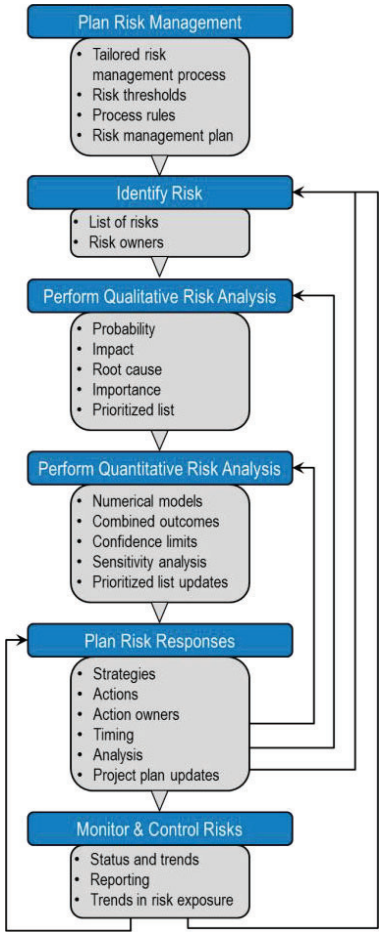


Figure 8 – Operations, Project and Program Risk Management Process

The emergent nature of risk requires the risk management process to be iterative in nature. During the "Plan Risk Responses" phase it may be necessary to return to earlier process steps due to the likelihood of residual risk after risk response is employed.

5.1.2 Portfolio and Enterprise Risk Management

The Enterprise Risk Management Office (ERMO) will also facilitate the management of risks at the portfolio level. While a program or project is concerned, for the most part, with risks and issues that arise inside the specific program or project, portfolios are concerned with (1) maximizing financial value of the portfolio, (2) tailoring the fit of the portfolio to the organizational strategy and objectives, and (3) determining how to balance the programs and projects within the portfolio given the organization's capacities and capabilities. The objectives of Portfolio Risk Management are to increase the probability and impact of positive events and to decrease the probability and impact of events adverse to the portfolio value, the strategic fitness of the portfolio, and the balance of the portfolio. The portfolio risk management process is illustrated in **Figure 9**.

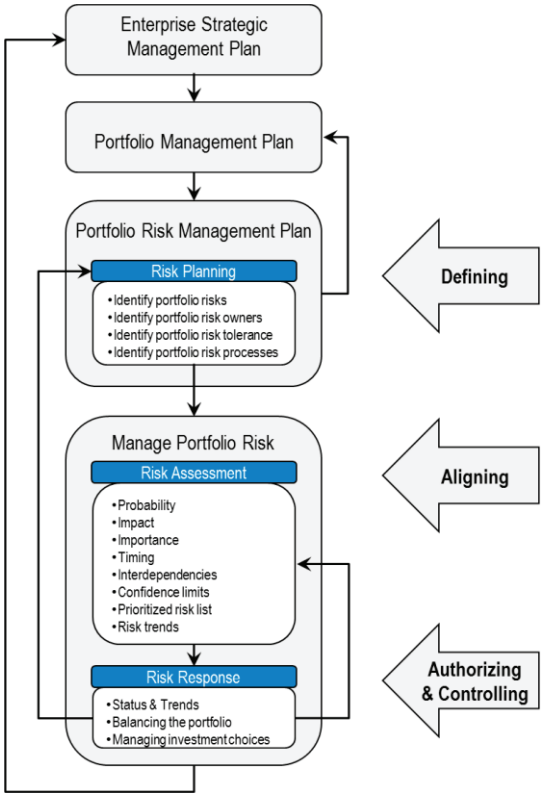


Figure 9 – The Portfolio Risk Management Process[3]

5.2 Conducting Risk Analysis

Risk may be analyzed using a number of qualitative and quantitative assessment tools and techniques. Qualitative analysis is generally performed on all risks. In some cases, depending on the nature and severity of the risk, and the availability of risk data, qualitative analysis may be excluded in favor of quantitative analysis.

Qualitative risk analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. After the qualitative risk analysis is complete, a qualitative prioritization will be done using a probability–impact (PI) matrix, scored using ERM Process Description E-PROC-0025, and the PI Matrix format shown in **Figure 10**.

The individual cells of the risk matrix are assigned a risk score, which is used for risk prioritization. Risks are also prioritized according to the colored severity bands to which they belong – red, yellow and green.

[3] The Project Management Institute, The Standard for Portfolio Management, Third Edition, (Newtown Square, PA: Project Management Institute, 2013), p. 121

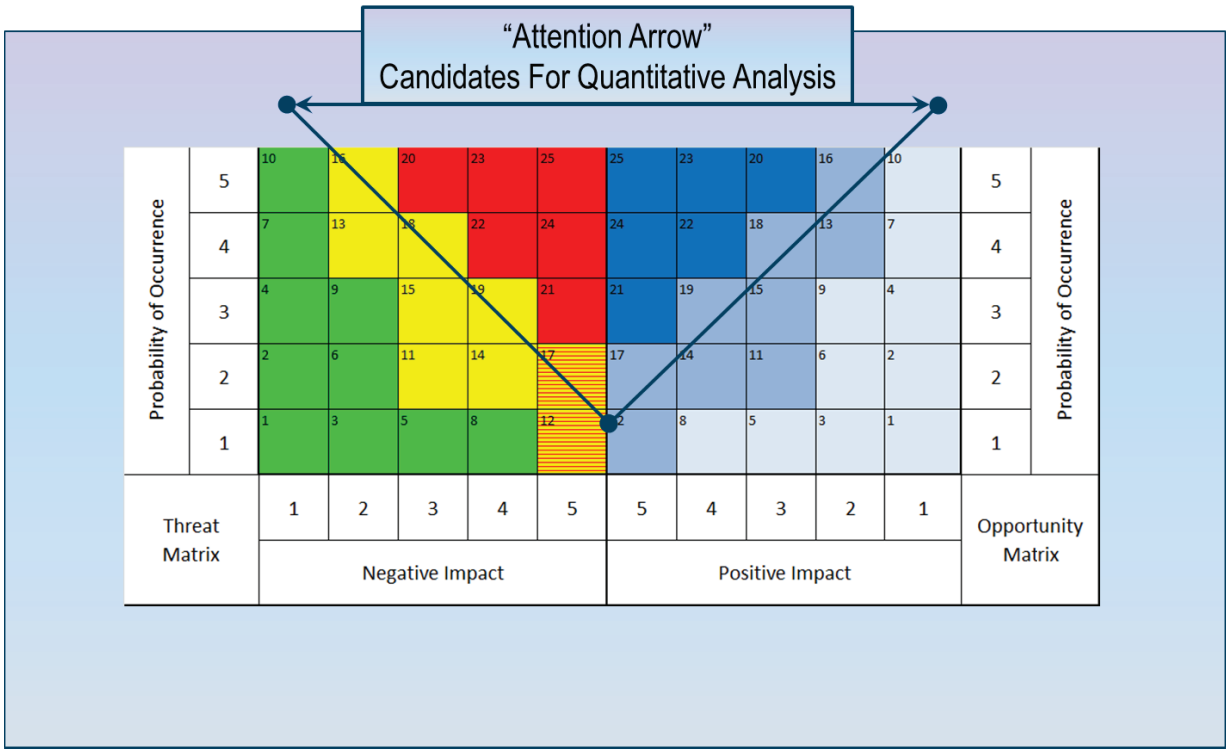


Figure 10 – The Probability-Impact Matrix Showing The "Attention Arrow"

The PI matrix is a fast and relatively inexpensive technique for establishing priorities, but it is a blunt tool that does not always accurately represent risk.

For those threats and opportunities that are found inside the "Attention Arrow" at the center of the matrix (see **Figure 10**), it is recommended that a more accurate, more extensive quantitative risk analysis also be conducted. Quantitative analysis is not warranted for risks that are not in the Attention Arrow. Most of these risks will be "accepted" (refer to section 5.3) and monitored for change.

A mitigation plan is developed for each risk which is not avoided, transferred or accepted (refer to section 5.3). In like manner, opportunities shall have a plan for exploitation. Low probability, high impact threats (e.g., risk score of 12 and 17 on the PI matrix in **Figure 10**) should not be dismissed as requiring no further action, due to the low probability of occurrence. Because of the severity of the impact that these risks present, development of a contingency response plan should be considered, as well as additional quantitative analysis.

The Qualitative Risk Analysis should answer the following questions.

- What is the risk?
- Why might it occur?
- How likely is it? (probability)
- How bad/good might it be? (impacts)
- Does it matter?
- What can we do?
- When should we act?
- Who is responsible?

5.2.1 Quantitative Risk Analysis

Quantitative analysis is performed on risks that qualitative analysis indicated as having the potential to substantially impact organizational objectives.

The structure of quantitative risk analysis is illustrated in **Figure 11**. Quantitative techniques include but are not limited to the following:

- Utility theory
- Decision trees
- Sensitivity analysis
- Force field analysis
- Statistical simulations (Monte Carlo analysis)
- Failure methods and event analysis

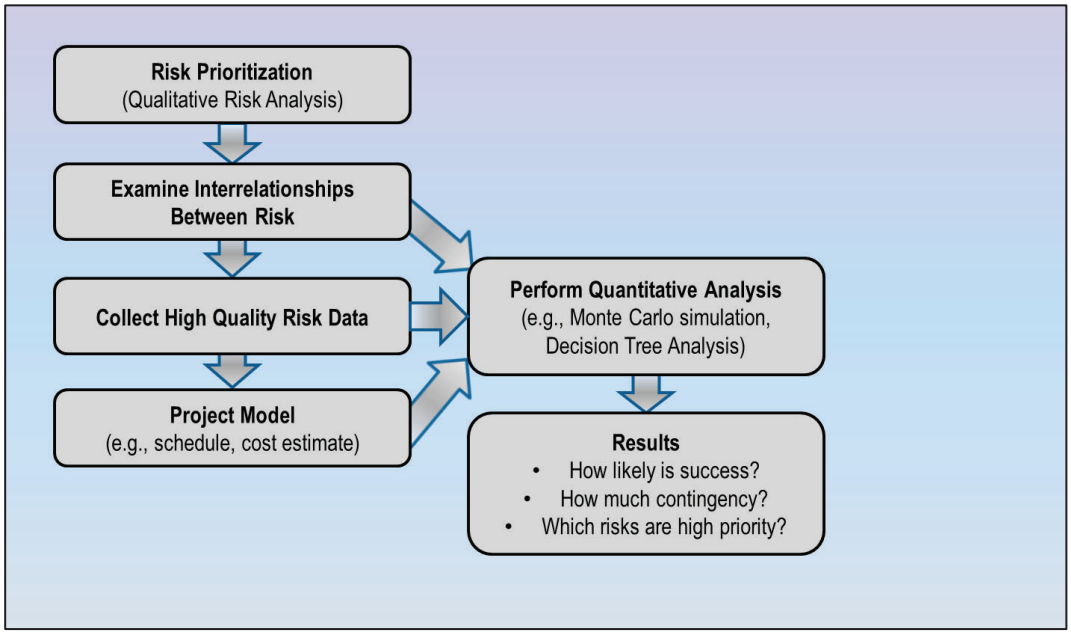


Figure 11 – Structure of Quantitative Risk Analysis[4]

5.3 Risk Response[5]

A risk response strategy will be developed for each risk. Strategies for threats (negative risks) include:

- **Avoid**. Risk avoidance may be the most cost-effective strategy. It is most effectively developed during the early phases of the program or its components.
- **Transfer**. At the program level, risk interdependencies make the transfer of risk problematic. Careful evaluation for intentional exclusion or risk, or unintentional inclusion is necessary.
- **Mitigate**. Taking early actions to reduce the probability and impact of the risk on the program.

[4] Practice Standard for Project Risk Management, p. 41

[5] Project Management Institute, The Standard for Portfolio Management – Third Edition. (Newtown Square, PA: Project Management Institute, Inc., 2013), 208

- **Accept**. Some risks cannot be eliminated or addressed through a viable strategy. These risks may require acceptance by not acting and dealing with the threats as they occur.

Strategies for opportunities (positive risks) include:

- **Share**. Outsourcing and making better use of external partnerships may be required in order to capture the opportunity.
- **Exploit**. Positive impacts to the program are possible, provided the necessary resources to realize the benefits exist.
- **Enhance**. Affecting key drivers to increase the expected value of the opportunity.
- **Accept**. This strategy indicates that the program team has decided not to change program plans and will deal with the opportunities as they occur.

The risk response plan establishes how the project will alter the probability of a specific risk and the size of its Impacts by detailing the responses that will be carried out for the risk.

Despite planning efforts, a risk condition or event may still occur. Some risks, depending on their nature and severity, should they be realized, will require the establishment of a contingency plan, which is developed in anticipation of the occurrence of a risk, and is to be executed only if a predetermined trigger condition or event occurs. The contingency plan should identify all trigger events and include amounts of time, money, or resources needed to handle known – or even sometimes potential, unknown consequences.

5.4 The Aggregation of Risks

It is desirable to aggregate risk for the purpose of evaluating total risk exposure. Depending on the stakeholder's interests, this will be done for the following categories:

- Project level
- Program level
- By facility
- By site
- At the enterprise level
- Safety
- Security
- Mission Delivery
- Quality
- Cost Efficiency
- Cost Reduction Initiatives
- Risk Breakdown Structure element

Conversely, there may be times when aggregate risk needs to be disaggregated into individual risks, so a problem source can be isolated and addressed. This aggregation and disaggregation process must follow the 100% rule. This rule states that the risk breakdown structure (RBS) includes 100% of the risk defined by the enterprise's scope. The rule applies at all levels within the hierarchy: the sum of the work at the "child" level must equal 100% of the work represented by the "parent" and the RBS should not include any work that falls outside the actual scope of the enterprise, that is, it cannot include more than 100% of the work.

5.5 Risk Management Tools

ARM®, Active Risk Manager, by Sword Active Risk has been selected as the CNS ERM tool. ARM® is an industry-leading, off-the-shelf risk analysis software which has the capability to integrate our risk approach across all functions, groups, and sites. The ARM tool is based on industry standard best practices for risk management and provides standardization, is integrated and comprehensive, and supports risk informed decision making processes while aligning with the CNS One Vision of Safety, Security, Mission Delivery, Quality and Cost Efficiency.

5.6 Risk Management Governance

CNS risk review boards shall be organized using Integrated Product / Process Development (IPPD) principles. Each Integrated Product / Process Team (IPT) is a multidisciplinary group of people who are collectively responsible for delivering a defined product or process. Every member of the team works from the same information and towards the same overall goals, utilizing the same reporting criteria and tools. Customer representatives and other stakeholder organizations will be present during meetings, which leads to:

- Fewer meetings
- Enhanced downward communication of requirements and upward communication of status and risk
- Enhanced horizontal communication which improves integration

Each team must have the right mix of expertise to master the different facets of risk associated with their business assignments. Members of each IPT must be empowered to make decisions for their respective functional organizations.

While IPTs do not work in isolation, the best IPTs are able to make decisions with fewer consultations, reviews, and approvals with those outside the team. Thus they are not only more efficient; they are also more effective.

The goal is to manage issues at the lowest level possible, commensurate with the level of risk. IPTs are formed around the organizational RBS, which is closely aligned to the WBS and the cost accounting system. The IPTs are structured to define the relationship between top-level and sub-tier teams. When risks remain unresolved (due to lack of resources, higher priorities, etc.), the ERMO program managers will ensure that these risks are escalated progressively higher on the authority scale until resolution can be achieved. The escalation procedures and thresholds are identified in each risk review board charter.

5.6.1 Risk Review Board (RRB) Governance

Tiered risk escalation is implemented through chartered RRBs, as shown in **Figure 12**. Each tier has a predefined escalation threshold. Risks are managed at the lowest levels possible, by people that are most familiar with the risk.

This model requires every member of the RRB to work from the same information and towards the same overall goals, with the same process and tools. This structure emphasizes systems thinking.

All required stakeholder organizations are present during meetings, which leads to enhanced downward communication of requirements, upward communication of risk, and integration through horizontal communication.

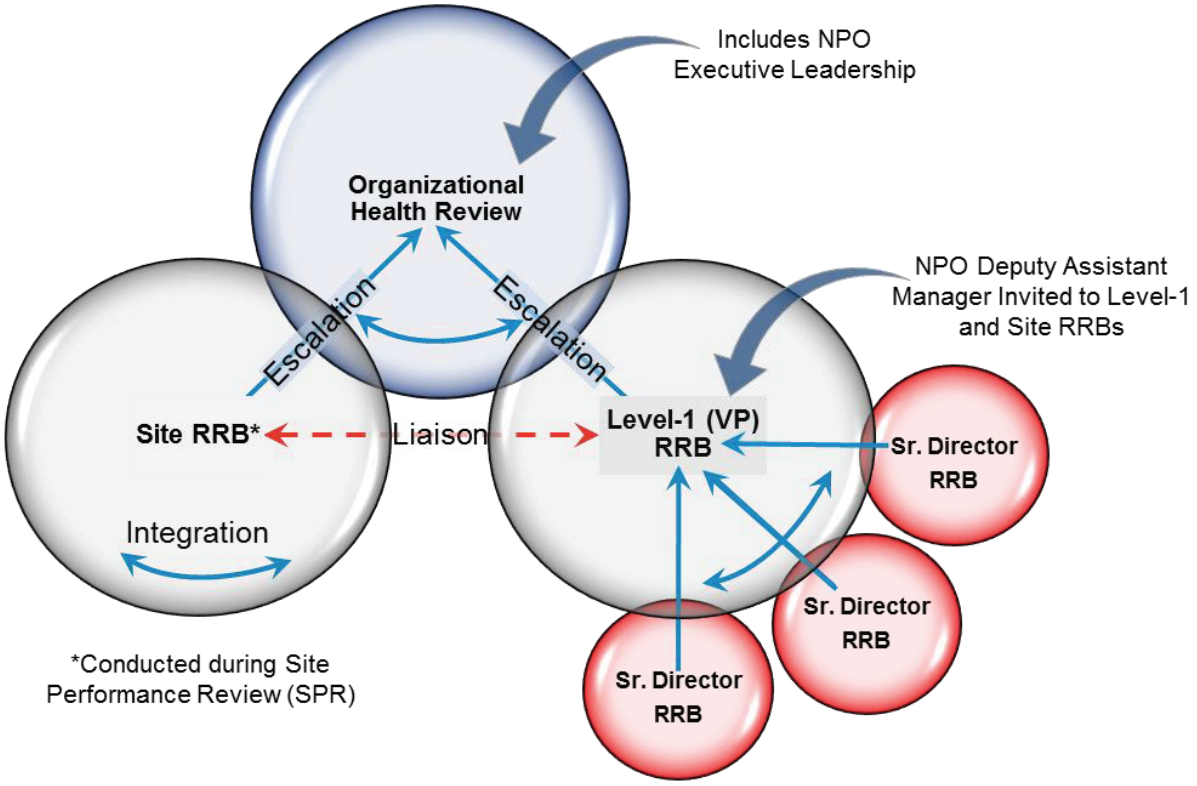


Figure 12 – RRB Relationships

At each RRB, risk is managed and coordinated with the rest of the organization – both vertically and horizontally.

An escalated risk does not transfer ownership of the risk. Escalation has one of two primary purposes: to provide situational awareness, or to activate the help chain – assistance required from others to resolve the risk.

The Pantex and Y-12 Site Risk Review Boards (SRRBs) view risk from a site perspective. The Level 1 RRBs interface with the SRRBs in one of three modes: Mode 1, an informative relationship, primarily providing situational awareness; Mode 2 in a contributive relationship, responding to actions that originate from the SRRBs, and; Mode 3 as part of an integrated joint working group, assigned to address risk that requires multi-organizational coordination.

6.0 COMMUNICATIONS

Proactive communications about transformation initiatives and merger activities are essential to CNS's success and achievement of future state vision and goals. CNS provides dedicated communication resources and vehicles to develop engaged, educated and integrated stakeholders, with shared support for transformation goals and initiatives. Ultimately, frequent and transparent communication ensures employees understand their role in NNSA's nuclear security mission.

Leadership is responsible for communicating a uniform and articulate foundational approach to the CNS strategy, mission and vision of transformation. The CNS leadership team communicates a compelling and consistent case for change to employees. Strategic communication planning efforts align leadership messages and identify opportunities for executive engagement to reinforce transformation objectives.

Effective communication ensures key messages penetrate all levels of the CNS enterprise, to include internal and external stakeholders. Stakeholder communication requirements must be understood, mapped and maintained, ensuring informational needs are met. Targeted and tailored tools assist managers and supervisors in communicating with the workforce on complex initiatives. Feedback loops gauge the receipt of such messages. Specific messages are created and released within single mission areas, whereas messages around enterprise-wide topics are released to broader audiences. Communication vehicles include emails, newsletters, website posts, verbal engagements and executive engagements. Effective communication is also a cornerstone of ADKAR©—Awareness, Desire, Knowledge, Ability and Reinforcement—which CNS has adopted as its model for change management.

7.0 COMPANY REACH BACK

The four CNS parent companies are well aligned culturally, have experience working together, bring complementary merger/consolidation experience, and have the core competencies needed to transform Y-12 and Pantex into an efficient enterprise. Specifically:

- Bechtel is a global firm that understands the NNSA missions from its management roles at Y-12, Pantex, Los Alamos National Laboratory (LANL), and Lawrence Livermore National Laboratory (LLNL). It will balance the drive for change with the need to protect mission continuity and certainty. Bechtel also brings the most relevant merger experience in DOE/NNSA today from its recent Knolls/Bettis consolidation as well as from the Nevada Test Site (NTS, now named the Nevada National Security Site or NNSS) where it merged three contractors at five sites into one contract, saving $468 million.
- Leidos has a vast experience that stems from their heritage businesses including Lockheed Martin IS&GS and SAIC. Their pedigree across infrastructure management, energy engineering and efficiency, environmental management, nuclear security, mission support, and IT modernization provides the applicable reach back needed to transform operations while modernizing aging infrastructure and maintaining environmental stewardship.
- ATK has worked with LM on the Trident program for 50 years and has successfully merged numerous companies including Hercules Aerospace and Thiokol Propulsion to become the world's largest supplier of solid propellant rocket motors and ammunition, and a leading provider of high-performance composite structures. It also merged operations at two large energetics sites under one management structure to reduce duplication and achieve substantial cost reductions. In addition, ATK dramatically cut its munitions production costs to remain competitive in a highly challenging commercial marketplace. ATK will bring its

energetics, high-hazard operations, and continuous improvement expertise to the production enterprise through numerous essential personnel integrated into the organization at various levels to facilitate top-to-bottom culture change. Additionally, the recent merger of Orbital ATK with Northrup Grumman will serve to enhance with reach back opportunities available from ATK.

- Search On Command (SOC), LLC is a global provider of mission support and full-spectrum security solutions for the U.S. Government and commercial customers. Capabilities include mission critical safeguards and security, operations and maintenance, engineering, explosive ordnance storage and disposal, and international logistics and life support services. Within the Department of Energy portfolio, SOC operates at Y-12, Pantex, Sandia-Livermore, and the Nevada National Security Site. SOC retains security enterprise subject matter experts available for reach back support to site operations, and cleared personnel to support operations during contingency operations. Furthermore, as a Day and Zimmerman Company, one of the oldest family owned businesses in the United States, SOC has mature business relationships with Mason and Hanger Construction, and Day and Zimmerman Staffing Services.
- While Bechtel, Leidos, ATK, and SOC all bring relevant, successful transformation experience to CNS, we also know that over 50% of all mergers fail to meet their stated goals. To help ensure we deliver for NNSA, CNS preselected Booz Allen Hamilton as a teaming subcontractor to guide our consolidation efforts. Booz Allen has helped over 600 customers plan and execute acquisitions, mergers, and business restructurings. Its proven suite of tools and approaches will be invaluable in smoothing and streamlining the merger of Pantex and Y-12 while creating a cohesive production enterprise. Booz Allen will also help CNS leverage its corporate parents' presence at LANL, LLNL, and Sandia to assist NNSA in accelerating its "One NNSA" vision beyond the production plants.

8.0 PERFORMANCE EVALUATION AND MEASUREMENT PLAN

A Performance Evaluation and Measurement Plan (PEMP) is jointly agreed upon between CNS and NNSA each fiscal year and it is incorporated into the Contract at Section J, Appendix B. The PEMP establishes annual performance Goals, Objectives and Key Outcomes deemed indicative of successful contractual and mission performance and it incentivizes performance through the allocation of a defined percentage of Performance Incentive Fee (PIF) to each of the Goals set forth in the PEMP. Although the performance evaluations provided pursuant to the provisions of the PEMP, and the resultant distribution of PIF based on the Fee Determining Officials annual assessment of CNS's performance, is separate and distinct from Cost Savings Incentive Fee (CSIF) determinations; the PEMP provides CNS and NNSA with a vehicle to ensure that Cost Savings Program achievements are balanced and aligned with overall mission performance as measured by performance against the annual Goals, Objectives and Key Outcomes set forth in the PEMP.

9.0 CNS APPROACH TO COST SAVINGS

In its original proposal, CNS identified $3.27 billion in savings over the 10-year contract period. Section 12.0 references Contract Modification No. 0121 which approved a reduction of $360M to lower the overall total savings to a 10-year target of $2.914B. Our confidence in our ability to deliver those savings is based on the following facts:

- We were deliberately conservative in our assumptions and constrained our savings initiatives to areas we could implement under our own authority as the M&O contractor.

- We focused on mission support functions and were deliberately conservative regarding security and the missions.
- We used proven merger, transformation, and continuous improvement tools provided by Booz Allen to perform our analyses.
- Our initiatives increase mission productivity and in partnership with NNSA, will use value stream mapping to pursue further transformative changes to the missions.

The driving force behind the CNS cost savings effort is the portfolio of cost restructuring initiatives that will be included in the CRP. To identify and quantify these initiatives, CNS follows processes derived from Booz Allen's experience guiding hundreds of mergers, consolidations, and restructurings of major corporations and government enterprises. In developing the MTP during the procurement process, we identified 62 different initiatives that were described in the proposal. These initiatives were derived from the principles shown in **Figure 13** below, and are now aligned to the tri-annual process from the CNS Cost Savings Program policies and procedures. CNS and NNSA engage regularly during the fiscal year to review cost savings initiatives as shown in **Figure 14.**

DCOM	ABC	Norms of Objectivity	Pinpoint Behaviors
Use: To help supervisors provide clearly understood work directions and feedback **D—Direction** ◆ Do your people know what you want them to do and why? **C—Competence** ◆ Do they know how to do the task? **O—Opportunity** ◆ Do they have the resources (time, tools, money, people) required to perform the assigned work? **M—Motivation** ◆ Do they get feedback so they know what to keep doing or what to do differently? Addressing these four elements will cover about 80% of the root causes of	*Use: To understand and influence behavior* **A—Antecedents** ◆ Events that precede or prompt behavior ◆ 20% influence on behavior **B—Behavior** ◆ What a person does or says **C—Consequences** ◆ Events that follow behavior ◆ Increase, maintain, or decrease behavior ◆ 80% influence on behavior	*Use: To describe behaviors objectively (just the facts)* **N—Not an Interpretation** An unbiased statement about behavior **O—Observable** Behaviors seen/heard **R—Reliable** Two or more people agree on what they observed **M—Measurable** A number can be used to describe important aspects of a behavior or event **S—Specific** Detailed description as to what happened, who was involved, when, where, and the sequence	*Use: Specify the few critical behaviors that most impact the desired results (80/20 rule)* ◆ Be specific about the desired results ◆ Specify the key behaviors and performer(s) that most impact the desired results ◆ Describe the key behaviors objectively (avoid labels) ◆ Evaluate changes in behavior against changes in result

Figure 13 – Management Principles for Driving Cost Reductions

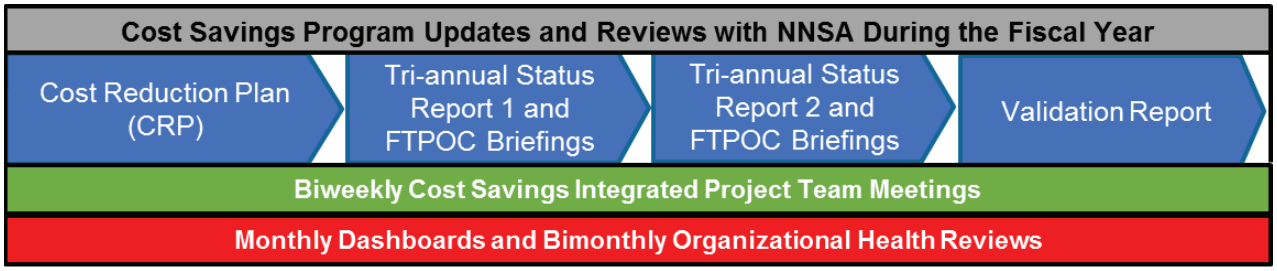


Figure 14 – Cost Savings Program Reviews

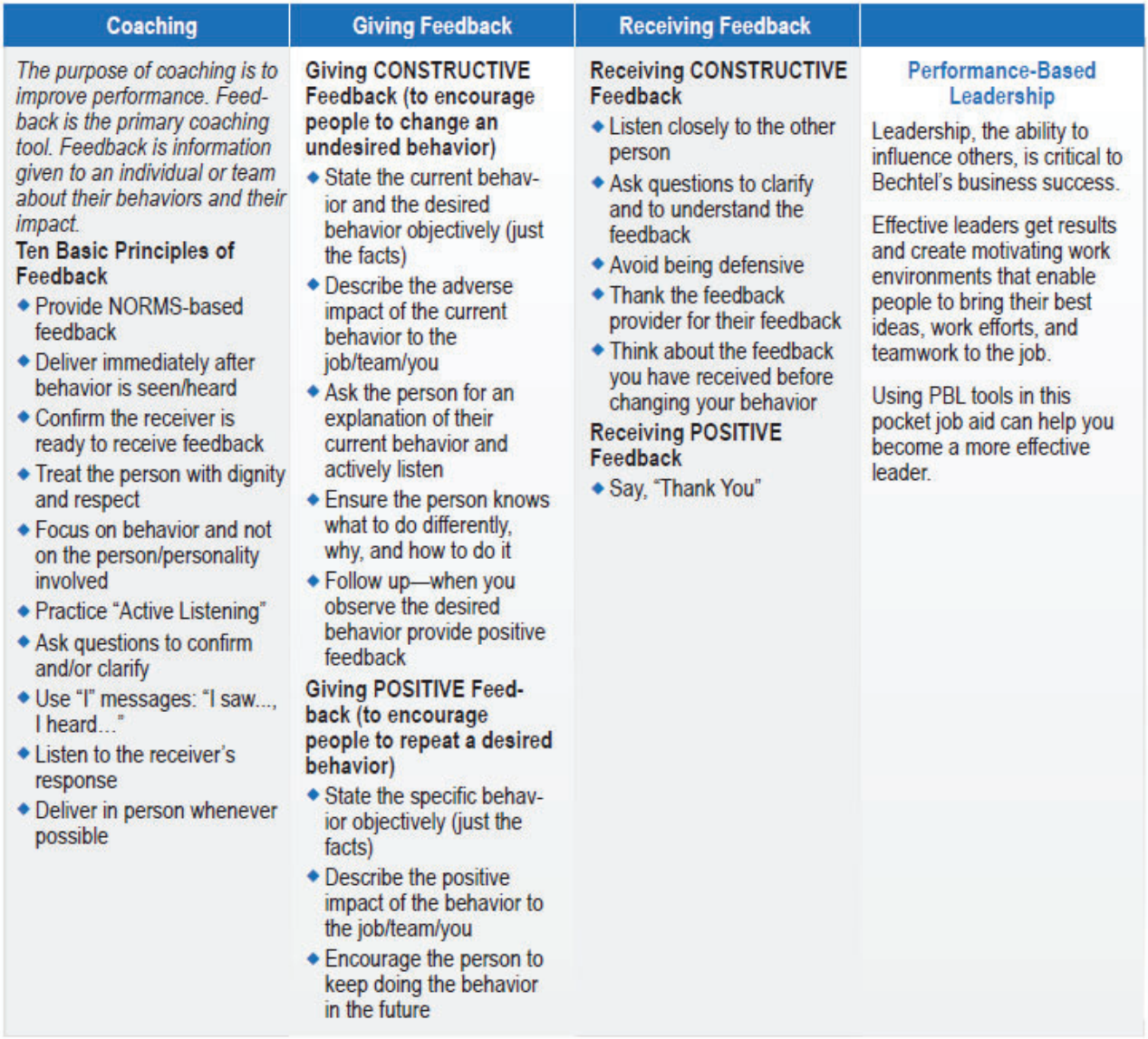
CNS has learned from the corporate Six Sigma, LM21, and PES programs that we cannot engage employees in a complex transformation program by intimidation. We must have voluntary buy-in to maximize discretionary effort and engagement. Further, we have found that managers do not always understand how to best motivate their employees to win this buy-in. For that reason, the CNS Performance Enterprise System (PES) deployment process will rely on training in Performance-Based Leadership (PBL) and Relational Based Leadership (RBL). These courses are a leadership toolkit taught and used across Bechtel as a general management approach and philosophy that helps managers get the best from their employees—including getting buy-in to PES.

The two courses are very different from other leadership formulas promoted across corporations today. It is based on behavioral science, and focuses attention on how results are achieved. Discretionary performance can best be described as the extra level of effort people contribute when they want to do something as opposed to when they are told to do something. PBL tools can help create an environment where colleagues are open to feedback, engaged in a continuous and productive behavioral improvement process, where they share and ultimately benefit from achieving mutual goals.

Some Y-12 and Pantex incumbent managers have already received training, and refresher training will help reinvigorate their PES skills. Training will be used to foster and maintain a workplace culture with a bias toward change that will markedly increase buy-in to the Performance Excellence Program and help institutionalize a long-term commitment towards excellence and continuous improvement. This commitment will yield enduring improvements in mission delivery.

CNS adopted Bechtel's proven, scientific approach to behavior change, which will be vital to establish a culture of continuous improvement across sites. Through this innovative training approach, leaders learn to utilize discrete tools to motivate, engage, align, and reward employees. It incorporates the following actions, which are outlined in **Figure 15**.

- **Goals:** Define and prioritize what needs to be done to improve strategic business success. These goals are related to the organization's (and the leader's) performance objectives, which are tied to the leadership team's compensation. By leaders communicating goals, the workforce will increasingly understand the impact of their behavior and daily work and adopt the mindset that change must occur.
- **Behaviors:** Pinpoint the human behaviors needed to improve engagement, motivation and the use of core processes and to achieve specific business results.
- **Analyze:** The work environment is analyzed to identify factors that encourage or discourage the desired behaviors.



Coaching	Giving Feedback	Receiving Feedback	
The purpose of coaching is to improve performance. Feedback is the primary coaching tool. Feedback is information given to an individual or team about their behaviors and their impact. **Ten Basic Principles of Feedback** ◆ Provide NORMS-based feedback ◆ Deliver immediately after behavior is seen/heard ◆ Confirm the receiver is ready to receive feedback ◆ Treat the person with dignity and respect ◆ Focus on behavior and not on the person/personality involved ◆ Practice "Active Listening" ◆ Ask questions to confirm and/or clarify ◆ Use "I" messages: "I saw..., I heard..." ◆ Listen to the receiver's response ◆ Deliver in person whenever possible	**Giving CONSTRUCTIVE Feedback (to encourage people to change an undesired behavior)** ◆ State the current behavior and the desired behavior objectively (just the facts) ◆ Describe the adverse impact of the current behavior to the job/team/you ◆ Ask the person for an explanation of their current behavior and actively listen ◆ Ensure the person knows what to do differently, why, and how to do it ◆ Follow up—when you observe the desired behavior provide positive feedback **Giving POSITIVE Feedback (to encourage people to repeat a desired behavior)** ◆ State the specific behavior objectively (just the facts) ◆ Describe the positive impact of the behavior to the job/team/you ◆ Encourage the person to keep doing the behavior in the future	**Receiving CONSTRUCTIVE Feedback** ◆ Listen closely to the other person ◆ Ask questions to clarify and to understand the feedback ◆ Avoid being defensive ◆ Thank the feedback provider for their feedback ◆ Think about the feedback you have received before changing your behavior **Receiving POSITIVE Feedback** ◆ Say, "Thank You"	**Performance-Based Leadership** Leadership, the ability to influence others, is critical to Bechtel's business success. Effective leaders get results and create motivating work environments that enable people to bring their best ideas, work efforts, and teamwork to the job. Using PBL tools in this pocket job aid can help you become a more effective leader.

Figure 15 - Management Principles for Performance Based Leadership

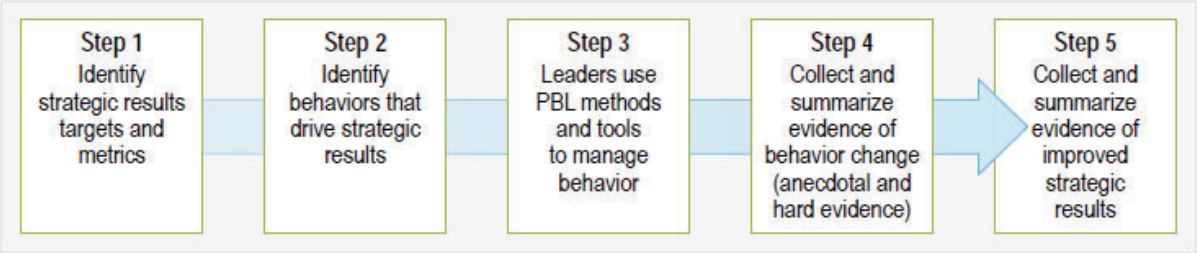


Figure 16 - Performance-Based Leadership

- **Change:** Based on the analysis, an action plan is established to change the work environment and consequently increase the probability of the desired behaviors occurring, leading to optimum results. This change process relies on leaders applying the seven tools of PBL to achieve the desired results.

- **Measure:** The outcomes need to be continuously measured and reported – both behavior change and business impact. Since goals are established and flowed down through the organization, comparing the performance measurements to these goals helps the leadership team and the increasingly engaged workforce to self-monitor and self-manage, facilitating continuous improvement at the same time that leaders remain accountable for results. This feeds into the concept that PBL is successful because employees want to do something versus being told to do something (commitment versus compliance).
- **Celebrate and Reward:** PBL augments the culture of employee engagement with one where employees are rewarded for meeting and exceeding goals. The CNS team in fact has a budget for formal recognition programs, in addition to a leadership mindset that values regularly recognizing good work.

THE SEVEN TOOLS OF PERFORMANCE BASED LEADERSHIP:

1. Coaching
2. Giving Feedback (both constructive and positive)
3. Receiving Feedback
4. DCOM supervisory tool (Direction/ Competence/ Opportunity/ Motivation); addresses 80% of root causes of poor performance
5. ABC Tool for understanding and influencing behavior (Antecedents/ Behavior/ Consequences)
6. NORMS of Objectivity (Not an interpretation/ Observable/ Reliable/ Measurable/ Specific)
7. Pinpoint Behaviors (the critical few behaviors that impact the desired results following 80/20 rule)

Figure 17 – The Performance Based Leadership Toolkit provides leaders with specific tools for coaching their team in order to achieve results and motivating work environments.

10.0 METHODOLOGY USED TO DEVELOP PROJECTED COST SAVINGS

To effectively deliver the mission consistent with its values, CNS recognized the need to carefully examine the cost savings available. CNS leveraged Booz Allen's expertise in cost restructuring engagements including mergers, transformations, and continuous improvement to systematically investigate potential cost reduction initiatives.

To initiate cost savings, CNS first engaged the complete CNS leadership team in a fact-based discussion on values, principles, goals, and expectations for the new contract and the challenges inherent in managing geographically separated sites as a single enterprise. From this discussion, our key personnel developed a common vision and mission for change that embodies the magnitude and timing of the cost and performance challenges. This executive-level dialogue is ongoing and continually guides the transformation as it progresses toward success.

CNS employed both top-down and bottom-up approaches to identify and isolate cost savings through all levels of the organization. Top-down approaches include comparisons of spending in overhead, mission support, and mission-performing functional areas. Spending quantities and the ratios of spending in various functional areas allows CNS to identify opportunities to reduce department sizes without sacrificing the performance of the organization.

Analysis of the organizations' supervisory spans and layers further reveals middle-management areas which can be optimized for greater performance. Bottom-up analysis such as a detailed analysis of benefits, management operational policies, and incentive structures allow CNS to propose changes to policies that will align existing organizational behaviors with CNS and NNSA interests. These methods helped identify redundant or less efficient technical and business

operations across the sites, which serve as the basis for cost reduction opportunities. Additionally, the continuous improvement methodologies to be implemented will continue to search for, uncover, develop solutions, and achieve savings in these areas over the duration of the contract. In developing the cost savings estimates, CNS identified the recurring savings that would be taken from selected actions.

11.0 CNS PROJECTED COST SAVINGS AND INCENTIVE FEE

As noted above, CNS developed an initial cost restructuring portfolio consisting of 62 CRIs previously identified in the proposal which CNS submitted to NNSA. The CRIs encompass both intensive and extensive changes to the organization. Initiatives change the cultural qualities of the organization as well as the size and shape of the organization. Various CRIs utilize economies of scale, differences in regional economies, competitive market landscapes, and management best practices across all functional areas in the organization. These CRIs were developed by general management consultants and vetted by functional experts who excel in their respective fields. As part of CNS' management review, the initiatives are considering the staffing levels in critical skill areas to ensure they do not drop below levels necessary to maintain these capabilities. This analysis is undertaken with HR and the CNS functional leaders to identify critical skill needs and existing talent pools. The Staffing Plan, submitted April 8, 2014 by CNS during Transition and now managed in concert with the ACB process, reflects this detailed review of the site skill mix and targeted effort to protect the necessary skills in the workforce. It should be noted that the cost savings approach of CNS will further protect and strengthen these critical skills over time. By freeing additional funding to CNS and NNSA, and reinvesting in needed skill sets where there are shortages, we will trim areas where skills are in excess of required capacity.

CNS created a CRI data template to systematically collect data regarding all aspects of each CRI relevant to CNS and NNSA, including:

- The amount of savings available
- Amount of execution costs required to achieve the savings
- Actions required to achieve the savings
- A timeframe for recouping costs
- Potential risks that could affect the expected savings of the CRI
- Actions that CNS would take to mitigate these risks

The identification, evaluation, and mitigation (as needed) of the risks in the CRIs are key aspects of ensuring the effective merger and transformation of the sites without negatively impacting the sites' missions. The CNS team members' decades of experience in leading and executing mergers and transformations, as well as their experience in managing and operating high-hazard operations are another aspect of mitigating risks to mission operations from the merger and transformation activities.

NNSA has designed and executed an innovative and well-structured contract for the Management and Operation of the Y-12 National Security Complex and the Pantex Plant. The contract strongly incentivizes CNS to identify and implement cost savings initiatives while maintaining a clear and appropriate focus on the safe and secure delivery of the mission. In accordance with the terms of the solicitation, CNS proposed sharing 35% of non-benefit-related savings for the first two years after the implementation and resulting verification of the associated cost reduction initiative. CNS further proposed that it would take no fee share from savings that resulted from the market based restructuring of employee benefits. This competitive approach enables CNS to return 92% of total

savings to NNSA for release, reinvestment or reprogramming without betraying any commitments to safety or security.

In addition to the proposed savings, CNS committed to provide rigor and transparency to the management of the cost savings program. This rigor and transparency is embodied in our approach to the Annual Controlled Baseline (ACB) and our use of appropriate management tools and systems to track and report savings. Our first-of-a-kind ACB includes an organizational cost baseline that provides a direct measure of savings and markedly increased detail on labor, material, subcontracts, and other expenditures. Recognizing that Earned Value Management System (EVMS) is a project management technique that is not intended to be a substitute for robust business financial management systems, CNS will utilize its certified EVMS system to execute line item and other capital projects as described below.

Our approach places equal emphasis on managing and tracking all elements of cost including direct, indirect, projectized level of effort, subcontracted, etc., and we will use our integrated processes (ACB, CRP, CRIs) to track and status all cost savings initiatives regardless of source or type. CNS originally proposed using a certified EVMS system to track and status all cost savings. This approach was based on a limited understanding of the site work, the existing degree of "projectization" of the scope, and the level of detail available in the planning process. During transition, CNS therefore modified its approach to employ our certified EVMS systems when it makes the most sense based on a requirement or to track a specific project with sufficient complexity to warrant the need for this level of detail (e.g. Life Extension Programs, Capital Reinvestments). The intent of our approach, however, remains the same in that we will place an equal emphasis on managing and tracking all elements of cost. We will develop and deploy systems to collect and integrate cost and accrual information from across the enterprise for analysis to support the management of the cost savings program and ensure the defensibility of savings claimed.

CNS used proven, commercially oriented merger and transformation processes to identify savings of $2.914B

- Streamlined staffing to focus on critical skills for mission delivery
- Adjusted benefits and employee leave policies to make them more consistent with industry trends
- Merged and consolidated functions with standardized processes
- Eliminated unnecessary activities and "shadow" functions
- Improved purchase pricing through volume-leveraged procurement
- Selective outsourcing for greater efficiency
- Enabled higher utilization rates through cross-training and flexibility
- Applied historical savings to account for more effective operations due to continuous improvement via Performance Excellence

Requirements for tracking cost reduction initiatives and segregating claimed savings have evolved significantly since the proposal was written. Funding related to CNS Cost Reduction Initiatives (CRIs) will be tracked through the Finance and Business Operations (FBO) Cost Savings Database by year and type of savings at the Obligation Control Limit (OCL) level. The cost savings will be segregated by the amount paid to CNS in cost savings incentive fee, the amount available for reinvestment, and the amount to be returned to NNSA. Based on transparency requirements, CNS has also developed an approach to create reserves inside and outside the ACB to provide visibility and transparency to the savings. The savings spreadsheet is linked with this effort to provide the required tracking. Additionally, each CRI will be tracked for the life of the contract.

Analyzing the cost restructuring portfolio allows CNS to forecast annual savings over the potential 10-year contract term. The projected cost savings and associated CSIF are shown in **Figure 19**,

which separates savings from benefits and non-benefits savings and demonstrates CSIF, which is taken on non-benefits savings only. Supply Chain savings are subject to a one-year valuation to demonstrate the sustainment of ongoing strategic sourcing initiatives, and the distribution of these savings is 25 percent CSIF, 35 percent government share, and 40 percent site reinvestment. All cost savings calculations will be done in conjunction with correspondence between CNS and the NPO Contracting Officer.

Figure 19 – MTP Revision – April 2017

Benefit Savings		Base Years ($K)					Option Years ($K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24		
CRP Savings ***Note 1***	**TY$**	**0**	**21,541**	**7,755**	**8,044**	**20,640**	**8,642**	**4,143**	**2,874**	**2,959**	**3,049**	**1,422**	**81,068**	**594,494**
Offeror Share in Savings	%	0	0	0	0	0	0	0	0	0	0	0		
Notes 2, 3	$	0	0	0	0	0	0	0	0	0	0	0	0	
Share in Savings Period	yrs	0	0	0	0	0	0	0	0	0	0	0		
Savings to the Government *Note 1*	**TY$**	**0**	**21,541**	**7,755**	**8,044**	**20,640**	**8,642**	**4,143**	**2,874**	**2,959**	**3,049**	**1,422**		**594,494**
Other Savings		Base Years ($K)					Option Years ($K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24		
CRP Savings ***Note 1***	**TY$**	**0**	**45,175**	**45,511**	**56,289**	**63,852**	**32,756**	**23,666**	**25,418**	**23,868**	**24,240**	**24,151**	**364,926**	**2,319,397**
Offeror Share in Savings	%	35	35	35	35	35	35	35	35	35	35	35		
Notes 2, 3	TY$	0	15,811	31,740	28,930	40,093	27,443	14,933	13,633	14,070	13,515	21,914	**222,083**	
Share in Savings Period	yrs	2	2	2	2	2	2	2	2	2	2	2		
Savings to the Government	TY$	**0**	**29,364**	**13,771**	**27,359**	**23,759**	**5,313**	**8,733**	**11,785**	**9,798**	**10,725**	**2,237**		**2,097,314**
Total CRP Savings		Base Years ($K)					Option Years ($K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24		
CRP Savings ***Note 1***	**TY$**	**0**	**66,716**	**53,266**	**64,333**	**84,491**	**41,398**	**27,809**	**28,292**	**26,827**	**27,289**	**25,573**	**445,994**	**2,913,891**
Total Savings to the Government	**TY$**	**0**	**50,905**	**21,526**	**35,403**	**44,399**	**13,955**	**12,876**	**14,659**	**12,757**	**13,774**	**3,659**	**223,912**	**2,691,808**

Note 1: New benefit savings and CRP Savings are calculated based on the difference of savings from that year minus the previous year.
Note 2: Cumulative CSIF is a summation of the savings in each Contract Year listed in the table.
Note 3: Fee for a given year is calculated by 0.35 * [(Total new savings for year n – Benefits new savings for year n) + (Total new savings for year (n-1) – Benefits new savings for year (n-1)]. Year 10 fee is 0.35 * (Total new savings for year 9 – Benefits new savings for year 9) + 0.7 * (Total new savings for year 10 – Benefits new savings for year 10) to accommodate the equivalent of two years of fee from year 10.

Figure 19 – Projected Cost Savings (CNS Contract Proposal) ($K)

For savings proposed in conjunction with the MTP, and as stated in the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction" CNS will validate the amount of savings achieved and sustained from prior periods after which savings will be verified by the Contracting Officer as required by contract. This will ensure there is no negative impact to NNSA mission deliverables.

12.0 ASSUMPTIONS USED TO DEVELOP PROJECTED COST SAVINGS

The assumptions underlying the CRIs included in CNS' proposal were carefully documented in the CRI data template to ensure that emerging conditions do not disrupt anticipated savings. These assumptions have been examined to ensure that they are sufficiently conservative to incorporate into the CNS decision-making process. CNS analysis assumes:

- CNS has used a historical severance cost
- CNS has used an approved Compensation Increase Plan (CIP) for labor and non-labor cost in the 10-year cost savings projections

By the issuance of Contract Modification No. 0121, NNSA accepted adjustments in five areas, totaling $360M: $267M in adjustments stemming from deferral of the Savannah River Tritium Operations option decision and $93M in adjustments from other areas where the information provided by NNSA to CNS and other vendors in the RFP differed from the actual site operations at contract turnover.

When CNS reports net savings, the calculations include only hard savings values that are less the execution costs required to achieve them. All of the CNS cost savings reinvestment projects submitted to date are funded through efficiencies that we create outside of cost savings reinvestment projects. Details about execution costs will be contained in the tri-annual status reports and the CRP Validation Report. In accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction" "[t]he Government makes no commitment to fund implementation costs but will consider those within budget on the merits of the savings proposed." However, it is assumed that site funding will continue to provide funding to support NNSA-directed actions and scope. For example, funding for facility replacements or capacity enhancements directed by NNSA, such as UPF, are not included as an expected investment by CNS, but instead are funded by NNSA. Similarly, an NNSA requirement to convert all NNSA site ERP systems to a common platform would be assumed to be contained with CNS site scope, or if changes are so significant that they are outside of current scope, an increase in funding or adjustment of existing funding priorities will occur in coordination with NNSA.

13.0 THE ANNUAL CONTROLLED BASELINE AND THE BASELINE CHANGE CONTROL PROCESS

13.1 The Annual Controlled Baseline

Developing and maintaining accurate baselines is crucial to the success of this contract. Accurate annual baselines serve as our roadmap for the way we accomplish the work, and help define scope, cost and schedule. Separate but related baselines must be maintained over the life of the contract to document the annual and cumulative savings achieved. These baselines must be accurate and defensible as billions of dollars of cost will be incurred and billions of dollars in savings will be released, reinvested or repurposed based on these baselines.

The baseline requirements are described in the Contract Statement of Work (Section J, Appendix A, Paragraph 3.3) and in Clause I-19 (DEAR970.5215-4). These requirements are addressed through the establishment and maintenance of three baselines as follows:

- Initial Baseline
- Annual Controlled Baseline (or current baseline)
- Proposed Baseline (or Cost Savings Baseline)

These three baselines are necessary to enable annual tracking of scope changes and cost savings over the life of the contract.

CNS has adopted a phased approach to implementation of the Annual Controlled Baseline (ACB) required under NNSA's Consolidated Production Contract. This approach is consistent with the phased approach being utilized to consolidate the Pantex and Y-12 financial processes and systems. Once fully operational, the CNS model of managing resources and scope will consist of the following components:

1. **Initial Baseline**
   a. **Purpose**: The initial baseline serves as the starting point for the measurement of verified cost savings for the duration of the CNS contract.
   b. **Content**: The initial baseline consists of the resources required to deliver the current mission scope prior to the implementation of efficiencies resulting from cost savings initiatives.
   c. **Change Criteria**: The initial baseline will be defined and agreed upon between NNSA and CNS and will be revised each year to account for verified changes in scope.

2. **Annual Controlled Baseline (ACB)**
   a. **Purpose**: The ACB is a verifiable description of the current scope of work, cost, schedule, and risk. It also captures and locks in implemented efficiencies to ensure sustainment.
   b. **Content**: The ACB consists of the mission and cost baselines defined below:
      i. **Mission Baseline**. The Mission Baseline includes spend plans by OCL. The mission scope is identified through the Prioritized Project List (PPL). It also defines the resources required to achieve the scope as well as associated deliverables and risk.
      ii. **Cost Baseline**. The Cost Baseline describes the annual costs and headcount needed by CNS Organization to achieve the mission baseline costs; broken down into labor, fringe, materials, subcontracts, etc., for each functional organization.
   c. **Change Criteria**: The ACB is developed annually and is referenced in the CRP. The ACB may need to be updated with BCRs during the fiscal year to incorporate scope, schedule, or resource changes.

3. **Proposed Baseline**
   a. **Purpose**: The Proposed Baseline is part of the Cost Savings Baseline which reflects the expected savings, generated by CRIs within the CRP, to be confirmed at the end of the fiscal year.
   b. **Content**: The Proposed Baseline reflects the target hours that each CNS organization must achieve by the end of each fiscal year to realize the savings within the CRP. If an organization's actual hours exceed the proposed baseline, CNS may not fully realize expected new savings. If an organization's actual hours

exceed the Cost Savings Baseline, CNS may reflect a loss of sustainment of previous years' savings.

c. **Change Criteria**: The Proposed Baseline was updated initially within the July 1, 2014, CRP and then on an annual basis at the beginning of each fiscal year. The Proposed Baseline may need to be updated during the fiscal year to incorporate scope changes that have occurred due to a delayed budget approval or other mid-year funding adjustments, to incorporate a CRI to be executed in the current year that was not included in the CRP, or to incorporate a CRI that requires modification during the year.

4. **Baseline Change Requests (BCRs**)
Any change to the mission baseline requires a BCR be developed and approved. The required approvals are based on the dollar amount changed and the approval thresholds defined in the CNS enterprise level ACB Change Control Process procedure. Once the BCR receives the appropriate approval the baseline will be adjusted.

5. **Cost Reduction Proposal (CRP) and Cost Reduction Initiatives (CRIs)**
These define the proposed merger, transformation and continuous improvement actions that CNS is taking to reduce the current baseline cost in a particular program, project, or organizational area. The CRP will include CRIs and will be updated at least annually. The CRIs will be tracked against the Annual Controlled Baseline and CRIs will be the mechanism for measuring and validating cost savings for the year by measuring cost reduction in actual annual hours to validate savings from the CRIs.

13.2 Current State

The ACB is a plan for scope, schedule, cost, and risks for the work executed during the fiscal year. The ACB includes both a Mission Baseline and Cost Baseline which contain all the elements of cost necessary to execute the planned scope (labor, materials, subcontracts, staff augmentation, and other direct costs) by both program and organization. At the beginning of FY 2015, CNS stood up a Change Control Board made up of Senior Leadership, F&BO, and Programs to manage the baseline and keep it under configuration control. CNS implemented a balanced Mission and Cost ACB, thus unifying Pantex and Y-12 into one plan. The complication of two separate financial systems was mitigated through a data warehouse which mapped the two financial systems into one consolidated organizational financial statement. This unified system provided the organizational detail and mission data. As of October 1, 2017, CNS has delivered a single financial system based on SAP HANA that will be the basis for tracking budgets, actual costs, and savings.

Starting in FY 2017, CNS improved its methodology for implementing and validating savings. Benefits and supply chain savings began using an annual savings methodology, and a new methodology was developed for labor FTE savings, outlined in **Figure 20 - Revised Labor Savings Validation Approach**. The improved methodology now includes a two-step approach for claiming labor FTE savings that first validates the achievement of labor CRIs and then confirms the resulting savings using actual hours.

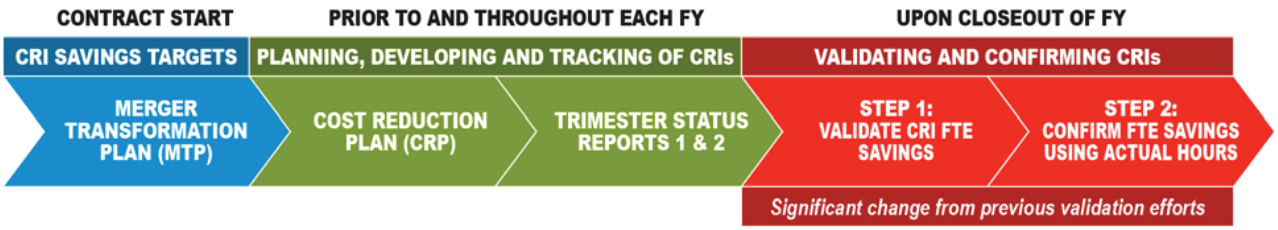


Figure 20 – Revised Labor Savings Validation Approach

The improved methodology fuses a "CRI-centric approach" with an actuals based savings confirmation. Step 1 validates the execution and achievement of an approved efficiency initiative and the subsequent delivery of the requisite level of scope. Step 2 confirms the implementation of the CRI by measuring the resulting reduction in actual hours. This approach provides multiple confirmatory steps to ensure that the CRI resulted in savings as follows:

- The CRI is complete and valid;
- The reserved funding is available for distribution per the sharing arrangement;
- The CRI reduced actual hours during execution;
- Overall hours did not shift to other areas; and
- Tracking of overall changes to the plan through a strengthened BCR process to ensure transparency for scope changes and to maintain a credible savings baseline.

Taken together, these steps significantly strengthen CNS's annual validation approach and provide a much clearer understanding of the validity of the savings claimed by CNS while also providing enhanced documentation to support these savings.

Further, the new approach includes a cost savings baseline that provides an ongoing means to measure cumulative savings and sustainment of previously verified savings. This approach better aligns the requirements of the cost savings program with NNSA mission requirements by recognizing that annual funding has been increasing year over year along with NNSA expectations for additional scope to address production requirements and site infrastructure conditions.

13.3 Phases in the Development of the ACB

13.3.1 Phase I: 4th Quarter FY 2014 Jul 1 – Sep 30, 2014

Phase I is referred to as year zero in the Merger Transformation Plan.

- **Mission Baseline:** Existed for each site but no rigorous scope definition, change control process or risk analysis process was in place.
- **Cost Baseline:** Did not exist by organization. CNS provided the Estimate To Complete (ETC) the remaining scope for the 4th Quarter of FY 2014.
- **Cost Reduction Initiatives (CRIs):** There were a number of CRIs, which impacted Phase I and were documented in the CRP. The CRP was submitted prior to the start of the period and included reference to a final ACB and a proposed baseline showing the anticipated cost reduction for the 3-month period.
- **Change Management Council (CMC):** Was implemented at the beginning of the period to manage changes to the Mission Baseline and CRIs for the period.
- **Cost Models:** Different ones existed for this period at the two sites, but there was an approved CNS disclosure statement.

- **Financial Systems:** Two separate financial systems existed but data was consolidated for reporting and ACB performance tracking and verification purposes.

13.3.2 Phase II: FY 2015 Oct 1, 2014 – Sep 30, 2015

- **Annual Controlled Baseline (ACB):** Was established and submitted December 17, 2014, and consisted of the following:

    - **Mission Baseline**. The Mission Baseline included costs based on standard rates by Budget and Reporting (B&R) code and by functional organization. The mission scope was identified through the Prioritized Project List (PPL), along with the resources required to achieve it. The scope, deliverables, and risk associated with each PPL were also defined.
    - **Cost Baseline**. The Cost Baseline described the annual costs and headcount needed by each CNS Organization to achieve the mission baseline. Costs within this baseline were broken down into labor, fringe, materials, subcontracts, etc. for each functional organization.

- **Cost Reduction Initiatives:** An updated CRP was submitted prior to the start of FY 2015 that included both the CRIs that began in Phase I as well as new CRIs which were implemented in FY 2015. The updated CRP also included a Proposed Baseline for FY 2015.

- **Change Management Council (CMC):** Was fully operational and reviewed appropriate scope; funding and CRI changes. Approved changes to scope, CRIs or budgets were reflected in both the Mission and Cost baselines.

- **Cost Model:** A single CNS cost model was in place at the start of the fiscal year.

- **Financial Systems:** Two separate financial systems existed but data was consolidated for reporting purposes as well as, performance tracking and cost savings verification purposes.

13.3.3 Phase III: FY 2016 Oct 1, 2015- Sep 30, 2016

- **Annual Controlled Baseline (ACB):** Was established and submitted at the beginning of FY 2016 and consisted of the following:

    - **Mission Baseline**: The Mission Baseline included costs based on standard rates by B&R code and by functional organization. The mission scope was identified through the PPL, along with the resources required to achieve it. The scope, deliverables, and a risk associated with each PPL was defined.
    - **Cost Baseline**: The Cost Baseline described the annual costs and headcount needed by each CNS Organization to achieve the mission baseline. Costs within this baseline were broken down into labor, fringe, materials, subcontracts, etc. for each functional organization.

- **Cost Reduction Initiatives**: CRIs that began in Phase I and II, as well as new CRIs that were implemented in FY 2016, were in place. An updated CRP was submitted prior to the start of the fiscal year to document the CRIs for this fiscal year and establish a proposed baseline for FY 2016.

- **Change Management Council:** Was fully operational and reviewed appropriate scope; funding and CRI changes. Approved changes to scope, CRIs or budgets was reflected in both the Mission and Cost baselines.

- **Cost Model:** A single CNS cost model was in place at the beginning of the fiscal year.

- **Financial System:** Two separate financial systems existed, but data was consolidated for reporting purposes as well as, performance tracking and cost savings verification purposes.

There are no changes beyond FY 2016 from what is detailed in Phase III with the exception that CNS moved to a single, consolidated financial system at the beginning of FY 2018 and CNS moved to using different SAP HANA versions. Those versions were used in the preparation of the annual ACB to differentiate the initial fiscal year spend plan (excluding CRIs) and the mission/cost baseline adjusted to reflect expected savings from the CRP (referred to as the "Proposed Baseline," which is maintained as the operating SAP HANA version for the execution year).

13.4 ACB Change Control Process

Baseline Change Requests (BCRs) are needed for changes to the ACB. Baseline changes exceeding certain thresholds are submitted to the CRB or CMC who can either approve them, endorse them to NNSA for approval, or disapprove them. The Change Control Process (CCP) shows how CNS accounts for change, identifies whether the change was directed by CNS or NNSA and, if NNSA directed, ensures that appropriate documentation is developed and approvals are obtained. CNS recognizes that such documentation is required to be able to provide the Contracting Officer with sufficient details regarding where changes originated (e.g., who in NNSA directed the change), how the change occurred, how the results were determined, and what actions were taken to revise the baselines. Absent such supporting documentation, baseline changes and potential savings may be disapproved.

The following outlines the CMC's structure and responsibilities relating to the CCP:

- **CMC CCP Responsibilities**: When justified, the CMC provides CNS approval of all BCRs and also oversees maintenance of the ACB. The baseline is included in the annual or mid-year CRP update. The CMC is responsible for approving BCRs associated with this document. The CMC also is responsible for forwarding approved BCRs to NNSA for final approval when required.

- **CMC BCR Structure**: The CNS Chief Operating Officer is the Change Control Chairperson. The Change Control Members are the same as the members of the CMC which will include ten key members who are senior CNS managers. In addition, the CNS Business Management and Transformation Vice President is the Change Control Secretary. The CMC members recommend approval or disapproval of baseline changes, but ultimate CNS disposition authority resides with the Change Control Chairperson. In addition, NNSA representatives are invited to all CMC meetings.

- BCRs whose change criteria fall below the change thresholds of the CMC are reviewed and dispositioned by the CRB and, below that, the Programs or Functional Organizations. NNSA representatives are invited to all CRB meetings as well.

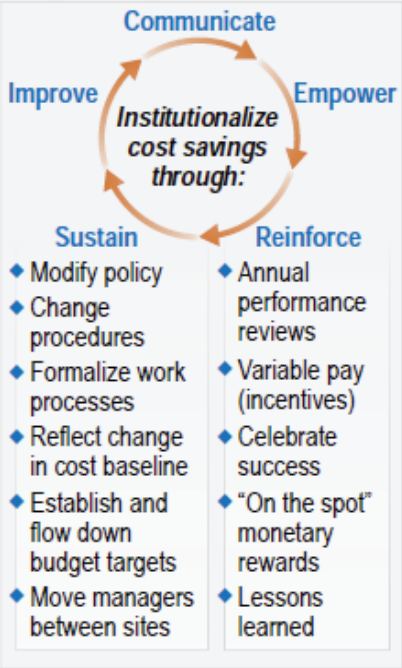


Figure 21 – Change Management Process. The CNS process for reinforcing and sustaining change in the production enterprise is based on hundreds of consolidations

14.0 INCORPORATING COST SAVINGS INTO ONGOING OPERATIONS

After we generate savings using our merger, transformation, and continuous improvement initiatives, we face two challenges:

- Ensuring that we sustain the savings
- Supporting NNSA in dispositioning those savings

This section presents our approaches for both challenges. To sustain the savings, CNS must institutionalize the improvements through procedure updates, training or retraining, culture alignment, management attention, and other reinforcement techniques that will stop any erosion of the savings initiative. CNS acknowledges that disposition of the savings is solely NNSA's responsibility and will, of course, support any action chosen. Should NNSA choose to reinvest the savings, CNS will present options for getting the best return on investment. That may be reinvestment within the production enterprise, or it may involve sending the funds to another NSE site. Booz Allen has vast expertise in this area and can offer abundant options. The following sections present more detailed responses to each of these post-savings activities.

14.1 Institutionalization of Cost Savings

Based on their extensive corporate experience, CNS has learned that sustaining transformational change is often as difficult as making it in the first place. Change Management is described in **Figure 21**. As we described previously, it comes down to leadership and discipline. CNS will detail the CRP policies and procedures it will use to institutionalize the cost savings we gain from our initiatives; the continuous process improvements realized outside of the CRP initiatives; and, transformation actions taken later in the merger process. CNS is fully incentivized to deliver the savings and guard against unintended consequences. As described in the proposal, CNS will fund a Corrective Measures Program for any corrective measures or rework associated with our cost savings initiatives.

14.2 Disposition of Cost Savings

Reinvestment of savings affords the opportunity to address aging infrastructure challenges, invest in personnel development and workplace quality of life, finance additional mission work, as well as enable further transformation initiatives. The Savings Reinvestment Process provides a formal framework for guiding contractor-generated savings reinvestment decisions. It establishes a transparent, technically-based business process that effectively identifies and approves those projects and human capital initiatives with significant benefit to the people and missions associated with CNS-operated sites. The process is governed by a set of general guidelines based on underlying contract requirements, program management guidance, fiscal regulations, and annual guidance from senior leadership. The process is supported by appropriate analysis and requires full stakeholder participation in the development, assessment and selection of projects and

initiatives for funding. CNS will provide recommendations on site reinvestment priorities and anticipates NNSA review and/or approval of projects based on magnitude of investment and potential impact to the wider Nuclear Security Enterprise.

14.3 Continuous Full and Open Transparency

CNS recognizes that cost performance on this contract may be more highly scrutinized than for any other NNSA M&O. Cost savings and efficiency gains were the motivation for merging the two contracts. The proposed cost savings played a large role in the selection of CNS and many are tracking performance to ensure goals are achieved. To satisfy this level of scrutiny, we respond with complete and total transparency as to all cost and schedule data—process rates, labor and material costs, staffing levels, overhead pools, and any other data needed to fully understand the savings we have proposed and the level to which we are achieving them.

To deliver this information, we are implementing a cost effective, web-based Consolidated Information System (CIS) that will leverage technologies that make it compatible with the NNSA Network Vision. CIS is a straightforward SharePoint-based portal to the information maintained by the consolidated data warehouse and the new/single financial system. . CIS will help visualize the data that will be integrated by combining the Pantex and Y-12 ERP systems on SAP HANA with the Business System Modernization Project (BSMP). CIS leverages Leidos' experience and best practices in deploying these types of transparent management portals for many other US Government departments including Health and Human Services and the Department of Defense. An underlying key tenant of our development approach is to migrate over time to a consolidated, integrated enterprise IT management model. This approach was detailed more specifically in the Architectural Roadmap deliverable, which was provided December 2014 with roadmaps updated and refined over time by the Chief Technology Officer (CTO) office. However, during the transition period, a common operating domain will be established to provide access to shared calendars, contacts, email, data shares and applications using a trusted relationship between the two networks. This serves as a first step in establishing the necessary architectural foundation for development of an integrated CIS.

After transition is complete, working with business and technical stakeholders, the team will continue further development of user, business, data, and technical requirements to ensure continuous full and open transparency is maintained. Requirements related to key CIS attributes such as permissions, reports, dashboards, data access, system usability and system performance will serve to drive system design and requirements validation testing. The CNS team understands the importance of developing an intuitive, flexible and easy to use system and the criticality of gaining end user input to develop an optimal system used to measure the performance of the new organization.

The CNS team will begin the journey to a consolidated enterprise information system environment leveraging NNSA's current technology investments in SharePoint, Data Warehousing, and Enterprise Resource Planning (ERP) platforms at Pantex and Y-12. A data warehouse will serve as the point of data consolidation to be utilized by the Consolidated Information System (CIS) SharePoint based Portal to provide CNS, NPO, and NNSA leadership access to consolidated data from the existing systems. This system was in place until the single financial system was delivered on October 1, 2017.

By using this approach, CNS began the process of consolidated reporting, standardization, and cross-site alignment of core business processes without impacting production operations.

The consolidation of this data brings full transparency with improved visibility to NNSA, NPO, and CNS, reducing the need to comb through multiple reports from multiple systems. The upward reporting capabilities brings quick implementation of a cost-effective, intuitive web-based interface with minimal training time. In addition to the consolidation of data, the team will look for opportunities to retire existing applications whose functionality will be replaced by or integrated into the CIS or other enterprise systems. This approach presents a significant opportunity for additional cost reduction.

In parallel to the infrastructure consolidation activities, the team will continue to review and identify the specifics related to role based permissions, standardized reports, specialized dashboards and real-time data access. This approach ensures that access to information is controlled yet securely accessible. The benefit of this approach is that the CIS can grow in phases, providing NNSA, NPO and CNS access to performance data and visibility into critical operating and contractual management elements. The result is a simple, easy-to-install, easy-to-use CIS that will provide NNSA and the NSE community with the data needed to validate the cost savings we will achieve. A phased system implementation approach, proven valuable in past implementations, requires managing expectations and delivering focused aligned features that provide the desired outcomes. Proposed phases of the CNS implementation are detailed below:

CIS Phase 1:

CIS Initial Operating Capability (IOC) will encompass an intersite shared SharePoint environment that will be accessible from both Pantex and Y-12. This SharePoint environment will be structured to support various functional and governance information publishing requirements from each functional area. The initial content within this structural framework will be limited to descriptions of the functional areas and any information that the functional areas wish to publish within the environment.

CIS Phase 2:

Data Definition: After the successful deployment of the CIS IOC, the Information Solutions & Services Team will work closely with the functional organizations to establish a comprehensive governance framework and define their key performance indicators (KPIs), SLAs, and metrics needed to manage the mission effectively. Once these definitions are identified, the key information will be entered into the system to provide the comprehensive governance dashboards until Phase 3 is completed.

CIS Phase 3:

Integration and Automation: The collection and display of the information defined and manually updated in Phase 2 will be automated through the integration of key system feeds to allow the information to be processed, correlated and displayed automatically. These feeds will include real time, where applicable, data feeds from existing toolsets across the enterprise to minimize the human interaction required for this data collection and reporting capability.

These information feeds from ‘element manager systems’ across the enterprise will be aggregated and orchestrated via an Enterprise Data Warehouse that will gather all of these data feeds for pre-processing and correlation before populating the management dashboards within the presentation layer of CIS. The architectural model for this environment is outlined in **Figure 22**.

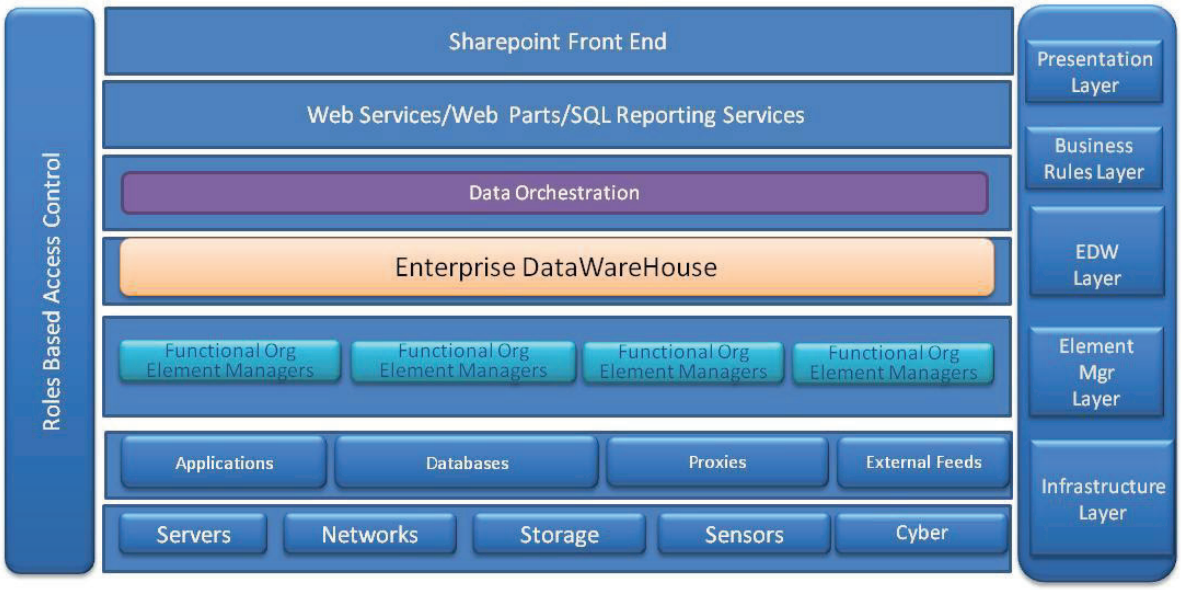


Figure 22 – Architectural Model for the Data Warehouse Environment

CIS Phase 4:

CIS Final Operating Capability (FOC) will encompass the final integrated system feeds to provide the final operating state of the CIS. The CIS will then move into operations and maintenance (O&M) lifecycle support with new features and integrations managed via the standard Configuration Management (CM) and Software Quality Assurance (SQA) processes.

Throughout all phases of deployment, the CIS system will control access to content via the Standard Active Directory Group Policy Definitions within SharePoint. Access to the Public Access Areas of CIS (Storefront, Functional Area Descriptions, Service Desk Ticket Status, etc.) will be available to all authenticated users. Access to business sensitive information such as HR, Finance, etc. will be limited to those groups and accounts with “Need-to-Know” access.

Pursuant to the deployment of Phase 4 FOC, the CIS is envisioned as becoming the ‘one-stop-shop’ for performance information related to the Operations and Management of the CNS Environment.

APPENDIX 1: MTP REQUIREMENTS COMPLIANCE MATRIX

MTP Requirement	Contract Section	Contract Sub-section	Contract Page #	MTP Page #	MTP Section
At a minimum, the Merger and Transformation Plan shall describe how the Contractor will:					
Manage merger of operations without negatively impacting mission	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Ensure critical skills necessary to maintain capabilities	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Identify and streamline redundant technical and business operations across the sites under this Contract	J	Appendix A-3.2	5	27-32	9.0 CNS Approach to Cost Savings, 10.0 Methodology Used to Develop Projected Cost Savings
Incorporate governance (Section J, Appendix A, Chapter I, 4.4)	J	Appendix A-3.2	5	11-16	4.0 Governance of the Merger and Transformation Activities
Maintain relationships and regulatory interfaces, and assume responsibility for permits with local, State and Federal entities, other DOE offices, and stakeholders.	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Other Requirements:					
The MTP shall also include Performance Fee Incentives, with associated objectives, measures, and targets to be considered for inclusion in the Contract's Performance Evaluation Plan (PEP), which may be multi-year, and be used as consideration for additional Contract term.	F	5 (a)	17	27, 32-34	10.0 CNS Proposal Projected Cost Savings and Incentive Fee
The MTP described in Section F, F-7(e), includes the Timeline of Projected Cost Savings	I	19 (a)	31	34	Figure 19– MTP Revision – April 2017

APPENDIX E.

PERFORMANCE GUARANTEE AGREEMENT(S)

[Replaced in its entirety by MOD 0015; Revised by MOD 0090; Revised by MOD 0165]

Bechtel National, Inc.

SECTION L
ATTACHMENT A
PERFORMANCE GUARANTEE AGREEMENT

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract DE-NA0001942 for the management and operation of the Y-12 National Security Complex and Pantex Plant (the "Contract") dated January 8, 2013, by and between the Government and Consolidated Nuclear Security, LLC (Contractor), the undersigned, Bechtel National, Inc. (Guarantor), a corporation incorporated in the State of Nevada with its principal place of business at 12011 Sunset Hills Road, Reston, VA 20190 hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which

by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on January 15, 2013.

Bechtel National, Inc.

[redacted]

John P. Howanitz
Principal Vice President



I, J. Robert Humphries, Secretary, hereby attest that John P. Howanitz, who signed this certificate on behalf of Bechtel National, Inc., was then Principal Vice President of said Corporation.

[redacted]

J. Robert Humphries

Leidos, Inc.



January 23, 2019

National Nuclear Security Administration
Department of Energy
Albuquerque, NM
USA

Third Revised Guaranty No. 2012-511

Gentlemen:

This Third Revised Guaranty replaces in its entirety the Second Revised Guaranty No. 2012-511 signed on December 13, 2016.

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract Number DE-NA0001942 for the management and operation of the Y-12 National Security Complex and Pantex Plant (the "Contract") dated January 8, 2013 by and between the Government and Consolidated Nuclear Security LLC (Contractor), the undersigned, Leidos, Inc. (Guarantor), a corporation incorporated in the State of Delaware with its principal place of business at 11951 Freedom Drive, Reston, VA 20190-5640, hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger,

or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on January 23, 2019.

LEIDOS, INC.

[redacted]

Marc H. Crown

Title: Senior VP & Treasurer

Address for notice:
11951 Freedom Drive
Reston, VA 20190
U.S.A.
Attention: Treasurer
Telephone: 571-526-6489

Marc Crown is the duly appointed, qualified and acting Senior VP and Treasurer of Leidos, Inc. as of the date of this signature and that the signature set forth above is his true and correct signature.

WITNESS my hand and the seal of Leidos, Inc. on this _____ day of January 2019.

By: [redacted]

Name: Ramune M. Kligys

Title: Corporate & Securities Paralegal Manager

(SEAL)



ATK Launch Systems Inc.

SECTION L
ATTACHMENT A
PERFORMANCE GUARANTEE AGREEMENT

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract DE-NA0001942 for the management and operation of the Y-12 National Security Complex and Pantex Plant (the "Contract") dated January 8, 2013, by and between the Government and Consolidated Nuclear Security, LLC (Contractor), the undersigned, ATK Launch Systems Inc. (Guarantor), a corporation incorporated in the State of Delaware with its principal place of business at 5000 S 8400 W, Magna, Utah 84044, hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other

document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer on 1/24/13.

ATK Launch Systems Inc.

[redacted]

Blake Larson
President

I, Brent Ebert, Vice President of Finance of ATK Launch Systems Inc., hereby attest that Blake Larson, who signed this certificate on behalf of ATK Launch Systems Inc., was then President of said Corporation

[redacted]

Brent Ebert

[Note: Pursuant to the ATK Launch Systems Inc. bylaws, ATK Launch Systems Inc. does NOT have an authorized corporate seal]

SOC LLC

PERFORMANCE GUARANTEE AGREEMENT

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract DE-NA0001942 for the management and operation of the Y-12 National Security Complex and Pantex Plant (the "Contract") dated January 8, 2013 by and between the Government and Consolidated Nuclear Security, LLC (Contractor), the undersigned, SOC LLC. (Guarantor), a Limited Liability Company organized in the State of Delaware with its principal place of business at 15002 Northridge Drive, Suite 100, Chantilly, Virginia 20151 hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand,

perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on January 15, 2013.

SOC LLC

[redacted]

John C. DiMarco, Jr.
President, SOC LLC

APPENDIX F.

WORK BREAKDOWN STRUCTURE

The Department of Energy, National Nuclear Security Administration (DOE/NNSA), manages a large and diverse portfolio of activities across the Nuclear Security Enterprise (NSE). To help facilitate and integrate the management of this portfolio, the Program Offices utilize an Work Breakdown Structure (WBS) comprised of all Programs' WBS elements. The WBS provides a consistent framework for planning, programming, budgeting, and evaluation (PPBE) of work required to execute their mission. The WBS includes work planning, scheduling, cost estimating, executing work, measuring performance, and reporting the status of work performed. It is expected that the WBS will be used in all Programmatic processes and Contractor support will be required to support those initiatives.

The WBS will be a tool used to define and group discrete work elements (or tasks) in a way that helps organize and define the total work scope of a Program. By grouping work into discrete, manageable elements, the WBS will help to organize and define the total Programs work scope across the NSE. The WBS element may be a product, service, or a combination of products and services. The WBS also provides the necessary framework for scheduling, cost estimating, and controlling a Program's work. As a dynamic tool the WBS, will be revised and updated annually or as required. The WBS is a tool that can be used by NNSA programs to:

- Provide a common framework for defining, managing, and reporting work throughout the PPBE process;
- Account for all work performed by an Program across the NSE;
- Enable program managers to better understand, plan and manage programs and projects;
- Provide greater transparency into how the Program is allocating and spending funds; and
- Establish work definitions to meet current and future cost estimating, scheduling, and performance measurement of Program activities.

APPENDIX G.

URANIUM PROCESSING FACILITY (UPF)
PROJECT MANAGEMENT PLAN

[MODs 0015, 0075, 0201]

The Project Management Plan, *PL-PM-80 1768-A033 CNS Project Management Plan for the Uranium Processing Facility Project*, is hereby incorporated into the contract by reference, and shall be contained and maintained under configuration control pursuant with *UPO-95-A025 UPF Project Senior Management Change Control Board (SMCCB) Process* in full text, as revised, in *PL-RM-801768-A002 Uranium Processing Facility (UPF) Other Basis Records (OBR)*

CNS PROJECT MANAGEMENT PLAN FOR THE URANIUM PROCESSING FACILITY PROJECT

Project Number 06-D-141

THE NATION'S URANIUM PROCESSING FACILITY

December 2018 | Revision 6

This document has been reviewed by a Y-12 DC / UCNI-RO and has been determined to be UNCLASSIFIED and contains no UCNI. This review does not constitute clearance for Public Release.

Name: A L Glover Date: 12/19/18
A. L. Glover

RC-UPF DMC
12/19/18 06:45

CNS PROJECT MANAGEMENT PLAN FOR THE URANIUM PROCESSING FACILITY PROJECT

Project Number 06-D-141

December 2018

Prepared by the Uranium Processing Facility Project Team
of Consolidated Nuclear Security, LLC
Management & Operating Contractor
for the
Y-12 National Security Complex and Pantex Plant
under Contract No. DE NA0001942
with the U.S. Department of Energy
National Nuclear Security Administration

APPROVALS

Preparer:

[redacted]

12/11/18
Richard L. Miller — Date
UPF Deputy Project Manager, BNI

Quality Implementing Approval:

[redacted]

12/11/18
Tonya Gracé — Date
Project Quality Manager, BNI

[redacted]

12/12/18
James W. Sowers — Date
Acting Quality Assurance Manager, CNS

Reviewed by:

[redacted]

12/19/18
Brian Zieroth — Date
UPF Project Manager, BNI

[redacted]

12/11/18
Catherine A. Flavin — Date
UPF Deputy Project Director, CNS

Approval:

[redacted]

12/12/18
John P. Howanitz — Date
Senior Vice President and UPF Project Director

REVISION LOG

Revision	Description	Intent	Non Intent
6	Revised to reflect the separation of the quality assurance personnel from one UPF organization into two organizations (i.e., UPF CNS QA and UPF BNI Quality). Revised PM titles to reflect announcement made on April 12, 2018. Changes to acronym list and references are not tracked. Added quality implementing approval signatures.	X	
5	Rewritten to reflect current processes.	X	
Previous revisions	On record	N/A	

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ACRONYMS, ABBREVIATIONS, AND INITIALISMS

3D	three-dimensional
AROD	Amended Record of Decision
ASME	American Society of Mechanical Engineers
BCCB	Baseline Change Control Board
BCP	baseline change proposal
BNI	Bechtel National Inc.
BOE	basis of estimate
BPS	Bechtel Procurement System
CAM	Control Account Manager
CAS	Contractor Assurance System
CD	Critical Decision
CFR	Code of Federal Regulations
CIS	Center for Industrial Services
CLIN	Contract Line Item Number
CM	Configuration Management
CNS	Consolidated Nuclear Security LLC
QC	Quality Control
CY	calendar year
DAR	Design Authority Representative
DEAR	Department of Energy Acquisition Regulation
DMC	Document Management Center
DMP	Design Management Plan
DNFSB	Defense Nuclear Facilities Safety Board
DOE	US Department of Energy
EAC	estimate at completion
EEP	Engineering Execution Plan
EPC	engineering, procurement, construction
ES&H	environment, safety, and health
EU	enriched uranium
EVMS	Earned Value Management System
FPD	Federal Project Director
FY	fiscal year
FYNSP	Future Years Nuclear Security Plan
HEU	highly enriched uranium
HEUMF	Highly Enriched Uranium Materials Facility
HR	Human Resources

ICD	Interface Control Document
IPT	Integrated Project Team
ISM	Integrated Safety Management
ISMS	Integrated Safety Management System
ISSM	Integrated Safeguards and Security Management
JHA	Job Hazard Analysis
KASE	Key Activities for Successful Execution
LEED	Leadership in Energy & Environmental Design
M&O	management and operating
MAS	Material Assignment Schedule
MEB	Mechanical Electrical Building
MPB	Main Process Building
MR	management reserve
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
NPO	NNSA Production Office
NQA	Nuclear Quality Assurance
NS&E	Nuclear, Security and Environmental (Bechtel)
ORR	Operational Readiness Review
PBQ	People-Based Quality
PEP	Project Execution Plan
PMP	Project Management Plan
PPE	personal protective equipment
PRMS	Programmatic Requirements Management System
PQM	Project Quality Manager
PSB	Personnel Support Building
PSF	Process Support Facilities
QA	Quality Assurance
QAM	Quality Assurance Manager
QAPD	Quality Assurance Program Description
RAM	Responsibility Assignment Matrix
RAR	Risk Analysis Report
RFSC	Ready for Shipment Checklist
RMP	Risk Management Plan
ROD	Record of Decision
S&S	Safeguards and Security
SA	Subcontract Administrator

SAB	Salvage and Accountability Building
SCWE	safety conscious work environment
SDIT	Safety-in-Design Team
SME	Subject Matter Expert
SOW	Statement of Work
SQA	Software Quality Assurance
SQEAS	Supplier Quality and Expediting Application Suite
SSC	structure, system, or component
STR	Subcontract Technical Representative
T&P	technical and programmatic
TEC	total estimated cost
TECAM	Technical Evaluation of Critical Attributes and Mitigation
TPC	total project cost
UPF	Uranium Processing Facility
UPO	UPF Project Office (NNSA)
WBS	work breakdown structure
Y-12	Y-12 National Security Complex

1.0 INTRODUCTION

Consolidated Nuclear Security LLC (CNS) manages and operates the Y-12 National Security Complex (Y-12) in Oak Ridge, Tennessee, and the Pantex Plant (Pantex) in Amarillo, Texas, for the US Department of Energy (DOE) National Nuclear Security Administration (NNSA). Y-12 serves as the nation's Uranium Center of Excellence where highly enriched uranium (HEU) is stored and where enriched uranium (EU) processing takes place.

In addition to the management and operating (M&O) functions for Y-12 and Pantex, CNS is tasked with executing the Uranium Processing Facility (UPF) Project at Y-12. The goal of the UPF Project is to construct a modern, state-of-the-art facility to begin the consolidation of Y-12's EU processing and manufacturing into an efficient, high-security facility. The scope of the Project is to design and construct buildings and infrastructure and install capabilities to support selected Building 9212 processes of the broader uranium mission strategy. The UPF Project has received Critical Decision (CD) 2/3 approval for the Main Process Building (MPB), Salvage and Accountability Building (SAB), and Process Support Facilities (PSF) subprojects. Also underway, and in the construction phase, are the Substation and the Mechanical Electrical Building (MEB) subprojects.

This Project Management Plan (PMP) outlines CNS's plan for managing the UPF. CNS issued a subcontract to Bechtel National Inc. (BNI) to provide personnel; processes; procedures; engineering, procurement, and construction (EPC) tools; and other resources as necessary to support and assist CNS in the execution of Contract Line Item Number (CLIN) 0002 of NNSA Prime Contract DE-NA0001942. The statement of work (SOW) for the BNI subcontract also states that BNI will perform procurements for CNS. The PMP also includes the EPC subcontractor's (i.e., BNI's) plan to manage the execution of the Project in accordance with the subcontract requirements. This PMP will be updated when significant changes occur to the execution plan of the Project.

This UPF PMP describes how CNS and BNI management methods, organization, control systems, and documentation for ensuring contractual requirements for the Project are met. The PMP establishes roles and responsibilities and summarizes how the CNS/BNI Project team will carry out the engineering, procurement, construction, startup testing, readiness, and transition to operations for this one-of-a-kind facility while satisfying the requirements of Prime Contract DE-NA-0001942 between DOE and CNS.

This PMP serves as a bridge to the UPF Project team's subordinate plans and procedures, which detail how management and control are implemented, and which are referenced throughout this document. Although document references are to specific revisions and publication dates at the time this version of the PMP was prepared, CNS/BNI will use the most current revision of these documents. The documents listed in **Section 6.0** are for reference only; official lists and current revisions are kept in the CNS/UPF document management system.

The scope of the subcontract between CNS and BNI provides for the use of BNI resources to support Project Management/Construction Management and use of BNI resources to support EPC management and execution. CNS/BNI will perform the approved scope using a combination of direct-hire construction and subcontracts, consistent with PL-CM-801768-A001, *Construction Management Plan and Execution Strategy*.

1.1 General Project Information

The goal of NNSA's UPF Project is to construct a modern, state-of-the-art facility to begin replacement of the aging EU processing facilities at Y-12, starting with selected capabilities in Building 9212. To meet this goal, a multi-facility option was selected. The multi-facility option consists of a central MPB constructed to nuclear standards commensurate with high-hazard materials and processes contained therein; an SAB constructed to standards commensurate with low-hazard materials and processes contained therein; and an MEB constructed to non-nuclear industrial standards. The design also includes support facilities, such as a Personnel Support Building (PSB), Cooling Towers, Fire Tank and Pump House, Diesel Generators, Construction Support Building (CSB), Substation, and the PSF. The intent of this approach is to install processing capabilities no later than 2025, and not exceeding $6.5B, that will allow transition of critical Building 9212 capabilities into UPF.

The UPF MPB contains the following: Non-Destructive Analysis/Waste Preparation, Furnaces and Repacking, Special Oxide Production, Casting, and spaces needed for process support such as the Shift Manager's Office, restrooms, and other personnel-related rooms.

The UPF SAB contains the following: Waste Preparation, Decontamination, Non-Destructive Analysis, the Clean and Contaminated Maintenance Shops, Chemical Recovery, Calcination and Leaching, Electronics and Calibration Maintenance, Filter Room, and other personnel-related rooms.

The UPF MEB is a standalone building housing mechanical; electrical; heating, ventilation, and air conditioning equipment; and other utility equipment and support systems. The utility infrastructure, building service systems, and process service systems will be designed to accommodate only the Project scope included in the currently defined multi-facility option.

The UPF has been designed to house the necessary capabilities and capacities to comply with the requirements of DOE/ORO-2171, *(U) Uranium Processing Facility Project: Replacement of Select Building 9212 Capabilities Subproject at Y-12 National Security Complex*, as well as guidance letters on the Highly Enriched Uranium Materials Facility (HEUMF) fire water supply.

System requirements are defined in SR-PE-801768-A001, *(U) System Requirements Document for the Uranium Processing Facility Project*. The overall Systems Engineering strategy for establishing, managing, validating, and verifying the design requirements for a fully integrated UPF Project is documented in PL-PJ-801768-A025, *Requirements Management Plan for the Uranium Processing Facility Project.* Criteria governing the facility and system design, are detailed in the multi-volume DE-PE-801768-A001, *Uranium Processing Facility Design Criteria* (DE-PE-801768-A001 through A053).

The UPF Project has identified, and NNSA has accepted, a defined set of standards and requirements under which the design and construction of UPF shall be conducted. This set of standards and requirements includes federal, state, and local laws and regulations, as well as DOE directives, such as orders, manuals, and standards. These standards and requirements, as well as other regulations, are referenced in PL-RM-801768-A001, *UPF Design Code of Record,* and represent the Project's Code of Record. Further discussion of the Code of Record is in **Section 3.1**. Additional documents and standards (e.g., engineering standards, technical Project documents, and Y-12-specific design documents) applicable to UPF are identified in the design criteria volumes as Other Design Records.

In May 2016, the DOE Deputy Secretary granted waivers from the DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, requirement for Leadership in Energy and Environmental Design (LEED) Gold Certification for six UPF Project buildings (COL-NNSA-UPO-PM-801768-A166). The MEB and PSF are to be designed and constructed to the minimum criteria to achieve LEED Certified and LEED Silver levels, respectively, but registering, applying for, and obtaining LEED certification is not required. The MPB, SAB, and PSB cannot achieve certification, while the Fire Tank Pump Building is not applicable because it will not be occupied. The CSB that is part of the Site Infrastructure subcontract is LEED Gold Certified.

UPF operations are described in PL-PJ-801768-A027, *Uranium Processing Facility Concept of Operations*. The facility is being designed for a 50-year operating life; increased efficiency in operations and maintenance; and minimized risk to employees, the public, and the environment through the use of engineered controls. FR-OP-801768-A001, *Uranium Processing Facility Operational Requirements Document,* establishes the operations and maintenance requirements for the UPF, which are used as a basis for the design.

1.2 Management Structure

The UPF Project will be managed in accordance with this PMP. A CNS/BNI core UPF Project team has been established to execute the Project, which is subject to change to address Project needs. The organization charts, including for the top management structure, can be found on the UPF Project website (https://upf.y12.doe.gov/sites/upFWEB/SitePages/OrgCharts.aspx).

The CNS positions in the core Project team provide Project direction, oversight, and support while ensuring auditable separation from execution of the BNI subcontract scope. The BNI positions perform Project EPC execution while maximizing integration across the EPC functions.

To isolate UPF to the maximum degree possible from the ongoing operations at the site to avoid impacts in either direction, UPF will interface with the functional/support areas within the M&O during all phases of the Project through a UPF CNS Integrated Project Team (IPT). The IPT will provide services to the Project as well as act as the interface between the UPF Project and the M&O. A UPF CNS IPT charter is in place (OT-PM-801768-A016). Services from other organizations (e.g., Security Interface, Production Support, Maintenance Support, Safety Basis, and Design Authority) will be coordinated through the CNS UPF Operators Representative and the Design Authority accountable to the CNS Project Director. Each organization will perform its particular function in accordance with its established procedures, policies, and interface control documents. The UPF Project team will be as self-sufficient as possible, drawing support from the M&O only when required.

During the execution of the Project, the UPF team has the ability to leverage corporate resources and talent as required. This could be in the areas of staffing needs in support of critical tasks, implementation of proven tools/processes, and subject matter expert review of selected work products. With the award of the subcontract to BNI for the EPC scope of the Project, Bechtel Nuclear, Security, and Environmental (NS&E) functional managers will have an increased role to provide the people, processes, and tools required to execute the UPF Project and implement the appropriate NS&E functional oversight.

During Project execution, the Design Authority will remain with CNS as part of CLIN0001, Design Agent will remain with CNS as part of CLIN0002, and design execution will be performed by BNI as the engineer of record. There will be significant interface and engagement with the Design Authority, a CNS responsibility as a member of the UPF CNS IPT. Those

interfaces will be defined and formalized in accordance with a formal process as defined in **Section 2.3** and as generally described in **Section 2.4** of this PMP.

The roles and responsibilities of the members of the core team are included in **Appendix A**.

1.3 Funding Resource Plan

The UPF Project data sheet identifies that design, construction, and other costs are executed utilizing Line Item funding. In general, engineering, procurement, and construction are funded from Line Item funds, which together make up the total estimated cost (TEC) for the Project. Project initiation, project closures, and operational readiness are funded through other Project costs, which with TEC makes up the total Project cost (TPC). The TPC includes management reserve and contingency. Each subproject has an associated baseline estimate for that scope of work. The basis of the estimate (BOE) has been detailed in documentation provided as part of the CD-2/3 submittals.

Using the BOEs and the input from Engineering, Procurement, Construction, and functional organizations, a TPC point estimate has been calculated and will be periodically updated. For planning purposes, a funding profile is assumed based on NNSA direction utilizing the fiscal year (FY) 2017 NNSA *Future Years Nuclear Security Plan* (FYNSP), and no more than $750M per FY thereafter (COR-PS-4.27.2017-732484).

1.4 Critical Decision Execution Strategy Summary

The Project's CD strategy has been modified to align with the selected facility design approach and execution strategy (WP-PM-801768-A036, *Uranium Processing Facility Project Critical Decision Strategy*). The revised strategy consists of issuing multiple request packages for specifically defined scope. To the extent practical, each package will be complete and standalone for the scope of the CD request, and each package will be baselined and ready to start line-item activities upon receipt of approval. **Table 1** is the listing of CDs recommended by NNSA (COL-NNSA-UPO-PM-801768-A063) and key approval milestones at the time of this document's revision. In accordance with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets,* the final TPC baseline will be established when the final CD-2/3 package is negotiated.

Table 1. Critical Decision Milestones (current forecast)

Critical Decision	**Submittal to UPO** (A = Actual; CY = Calendar Year)	**Approval** (A = Actual; CY = Calendar Year)
CD-0 Mission Need	---	12/17/2004 A
CD-1 Alternative Selection and Cost Range	---	07/25/2007 A
CD-1 Reaffirmation Alternatives Analysis	02/15/2012 A	06/08/2012 A
CD-2/3 Site Readiness	10/31/2012 A	01/29/2013 A
CD-2/3 Site Infrastructure & Services	01/29/2015 A	03/04/2015 A
CD-4 Site Readiness	02/11/2015 A	02/27/2015 A
CD-3A Site Preparation and Long-Lead/Bulk Procurements	07/30/2015 A	03/30/2016 A*
CD-2/3 Substation**	06/01/2016 A	08/31/2016 A
CD-2/3 Mechanical Electrical Building (MEB)	08/23/2016 A	Dec 2016 A

Critical Decision	Submittal to UPO (A = Actual; CY = Calendar Year)	Approval (A = Actual; CY = Calendar Year)
CD-3B Long-Lead Gloveboxes, Skids, & Select Procurements	10/13/2016 A	Jan 2017 A
CD-2/3 Salvage and Accountability Building (SAB)	08/25/2017 A	03/21/2018 A
CD-2/3 Main Process Building (MPB)	08/25/2017 A	03/21/2018 A
CD-2/3 Process Support Facilities (PSF)	08/25/2017 A	03/21/2018 A
CD-4 Project Closeout	Oct 2024	27 Nov 2025
MEB CD-4	18 Jan 2022	
SIS	28 Feb 2018 A	
Substation CD-4	04 Dec 2019	
MPB	27 Nov 2025	
SAB	27 Nov 2025	
PSF	27 Nov 2025	

*CD-3A Site Preparation was conditionally approved in March 2016, contingent on approval of an Amended Record of Decision (AROD). The AROD was approved July 5, 2016, and full notice to proceed was granted to the Project on July 8, 2016.
**CD-2/3 Substation submittal was prepared by UPO with support from CNS.

2.0 EXECUTION STRATEGY AND APPROACH

2.1 Procedures/Processes

As the BNI subcontract was finalized, existing CNS procedures, including Y-12 site and UPF Project-specific procedures, were reviewed to ensure continuity of operations upon migration to the BNI subcontract. In addition, new procedures were identified that are required to support the implementation of the BNI tools and processes. During the development of these new procedures, some of the existing procedures required modification or deletion. A revision to Y15-95-235, *UPF Command Media*, has been executed to facilitate changes to the UPF Project's suite of procedures.

2.2 Work Breakdown Structure and Responsibility Assignment Matrix

The UPF Project technical scope is organized by a Work Breakdown Structure (WBS). The WBS is a hierarchy of elements that organizes and displays the required scope to be performed, thus serving to establish and control the scope baseline as well as the associated cost and schedule. The WBS breaks down the work to a level where roles and responsibilities can be assigned. The WBS is charted in WBS-PC-801768-A002, *CNS Y-12 UPF Project Work Breakdown Structure,* and initial phases of work are described in WBS-PC-801768-A001, *Uranium Processing Facility Project WBS Dictionary*. Control Account Managers (CAMs) are designated at appropriate levels for managing specific assigned scopes within the established schedule and budgets.

The Responsibility Assignment Matrix (RAM) integrates the Organizational Breakdown Structure with the WBS to create an intersection or Control Account that assigns responsibility for scope, cost, and schedule for specific WBS elements to a responsible organization or team member. The RAM relates the Project's organization to the anticipated work for ensuring that all components of the work are properly attributed to a responsible organization or team member

and are documented in CAM notebooks. The UPF RAM helps in making sure all components of the Project are properly assigned and that resources are being used to their utmost advantage. The WBS and RAM will be updated as appropriate.

2.3 Cross-Functional Interfaces

While the UPF Project, including CNS and the BNI subcontract, is organized in a traditional functional organization approach, an integrated team culture is expected and required. The purpose of this integrated execution approach is to improve safety, quality, inter-discipline communication, efficiency, productivity, and decision making ownership and accountability; to foster cooperation; and to focus on completing the work scope. Typical areas where the integrated team concept is employed are during the design phase with meaningful constructability reviews, potential material/equipment vendor consolidation, and overall EPC sequencing and integration.

In addition to the cross-functional interfaces within the UPF Project team, there are interfaces, support, and services required from other organizations across Y-12 and other government agencies (e.g., Tennessee Valley Authority and US Army Corps of Engineers). To manage these interfaces, Interface Control Documents (ICDs) have been established with each affected organization within CNS, in accordance with Y13-95-801, *UPF Interface Control Document (ICD) Procedure*. UPF ICDs document the interface agreements between the UPF Project and functional organizations within Y-12. The intent of these ICDs is to define roles and responsibilities that both parties will adhere to for providing support resources, services, or Project work to UPF. Changes to these ICDs will be coordinated and overseen by the UPF CNS integrated team. Impacts to the Project resulting from changes to the ICDs will be processed through the Project change control processes (i.e., trends, baseline change control).

2.4 CNS Oversight

Consolidated Nuclear Security, in addition, will provide BNI subcontract oversight, which is defined as either organizational or administrative.

Organizational Oversight

CNS has a senior manager, the CNS UPF Project Director, assigned to the UPF Project. The CNS UPF Project Director has full authority and responsibility for Project oversight and control and directly reports to the CNS Chief Executive Officer. The CNS UPF Project Director has under his direction subject matter experts (SMEs) who function as organizational leads for the Safety, Security, and Quality Assurance Project functions. Plans and documentation used by the SME leads for oversight are further described in the Administrative Oversight section that follows. Additional oversight of BNI functions and work products comes from BNI corporate resources. Functional managers and SMEs from BNI corporate conduct formal and informal reviews of activities and work products of BNI in the role of BNI management. The Key Activities for Successful Execution (KASE) reviews were examples of the formal oversight and were used for reviewing the readiness of the teams for performing the MPB, SAB, and PSF subprojects.

Administrative Oversight

Administrative oversight is provided through technical and procurement-related policies and procedures to establish standards and requirements for subcontracts whether the work is performed onsite or at other Y-12-operated, -leased, or -managed properties. The Subcontract Administrator (SA)/Subcontract Technical Representative (STR) is responsible for managing,

monitoring, and ensuring compliance with the technical and business requirements of the subcontract, while working with other representatives; SMEs from Quality and Operations; Facility specialists; Environment, Safety, and Health (ES&H); and Security to ensure that all subcontract requirements are met. Notable oversight functions of the SA and STR are as follows:

- Monitor performance of the subcontractor to ensure compliance with technical, quality, ES&H, security, and other requirements of the subcontract.
- Direct the subcontractor to perform with exactness the technical requirements and the administrative requirements set forth in the subcontract.
- Verify subcontractor's flowdown of requirements to lower-tier subcontractors.
- Participate, as necessary, in subcontractor surveillances.
- Ensure that the subcontractor segregates the work, materials, and expendable supplies when performing work on multiple subcontracts wherein one or more of the subcontracts is performed on a cost-reimbursable basis.
- Understand and monitor (in the field on a regular basis if work is being performed onsite) what the subcontractor is doing; verify that the subcontractor is performing the specified work as described in the subcontract; use SMEs as needed to assist in determining the acceptability of deliverables and services, and to ensure that subcontract requirements are met.
- Inspect or review all subcontract deliverable(s) or services(s) in order to determine the technical acceptability of each deliverable or service required by the subcontract, and, if appropriate, route to SMEs for assistance.
- Check subcontractor personnel periodically to verify that they are of the skill level required.
- If applicable, monitor Subcontractor Labor Relations, reporting potential and actual labor disputes to appropriate labor relations personnel.

As presented in the preceding list, there are CNS senior managers on the UPF staff that lead the Safety (i.e., ES&H), Security, and Quality Assurance programs and functions who report directly to the CNS UPF Project Director. Plans and documentation used by these functions include:

- Safety: PL-SH-801768-A008, *Uranium Processing Facility CNS ES&H Oversight Plan*
- Security: Various Y19 and Y19-95 (Project-specific) procedures, such as E-PROC-3123, *Identification and Protection of Unclassified Controlled Nuclear Information and Official Use Only Information*; Y19-203, *Manual for the Protection and Control of Classified Matter*; Y19-023, *Physical Protection Manual*; Y19-018, *Badging and Identity Proofing*, and Y19-95-032, *Foreign National Activity Reporting*
- Quality Assurance: Y60-95-102PD, *UPF Quality Assurance Program Description (QAPD)*.

The engineering and procurement functions have differing forms of oversight. As the engineer of record, BNI Engineering receives formal oversight by CNS Mission Engineering, the Design Authority, in compliance with the Contract Statement of Work. BNI Procurement receives oversight from several sources. CNS Procurement performs the formal Consent functions as required by the Contract and Subcontract. They also have performed detailed review and approval of the BNI "proformas," which are the terms and conditions, and other information used

for the various types of procurements. The Bechtel Procurement System (BPS), used by the UPF Procurement group, is audited regularly by the Defense Contract Management Agency Contractor Procurement System Review process, which results in formal approval of the system. There is also procurement review in the form of invoice reviews accomplished by the STR.

Construction activity will be completed by BNI, BNI lower-tier subcontractors, and CNS direct-hire craft. The CNS STR is responsible for oversight of BNI field activities as described in Y30-811, *Subcontract Management Program Manual*, and performs these duties with assistance from CNS Construction Management. Oversight of lower-tier subcontractor construction activities is the responsibility of the assigned BNI STRs, assisted by BNI Field Engineering and Construction Management. BNI STR oversight is performed in accordance with UPF Subcontractor requirements, procedures, and UPF Subcontract Management procedures.

The process for deploying and managing craft labor starts when CNS Construction Management and BNI Construction Management agree to the SOW to be performed by CNS craft resources prior to the need in the field. CNS identifies and acquires the appropriate craft(s), coordinates completion of report-to-work requirements, and assigns craft to the BNI SOW. BNI field superintendents monitor craft performance to ensure that the scope is accomplished as agreed, and they provide regular feedback to CNS Construction Management regarding status and issues encountered. Upon completion of the scope, the craft resources are released for re-assignment.

Earned Value Management System

The UPF Project adheres to the CNS Earned Value Management System (EVMS) procedures and system description, under which CNS is certified by the DOE Office of Project Management Oversight and Assessments (PM-30). As part of its oversight role, CNS will conduct periodic surveillances of BNI's implementation of EVMS processes on UPF.

2.5 Functional Execution

Each functional area is responsible for meeting the Project staffing requirements and for executing its SOW in accordance with approved procedures and policies. The Project will significantly engage with CNS/BNI functional managers to support staffing needs, obtain and receive technical guidance, and review completed activities to ensure they are in accordance with expected quality and baseline requirements.

2.5.1 Engineering

The UPF Project engineering strategy is defined by PL-PE-801768-A002, *Engineering Execution Plan for the Uranium Processing Facility Project,* (EEP), which describes the UPF Engineering organization's role in the Project and how the design and engineering for UPF will be executed. The EEP complements and augments this PMP with the appropriate level of detail necessary to engineer a project as large and complex as UPF. Key items identified in the EEP include:

- Engineering organization and interfaces, which define the Project Engineering organization in detail, as well as interfaces with other team members
- Division of responsibilities, which defines engineering organizational responsibilities with respect to Project scope and execution

- Design strategy, which defines the technical goals and objectives for design deliverables and level of completeness
- Interface with Y-12 Mission Engineering relative to engineering design authorization, safety engineering, and requirements and surveillance
- Subcontracting strategy, which defines when and how the design will be subcontracted, and includes scope, value, subcontract type, and selection method
- Engineering planning tools and methods used to manage and control the design
- Design process procedures and methods used to execute the design and control organizational and technical interfaces
- Engineering deliverables to other Project functional groups, which define the organization and deliverables that are due to other functional groups
- Engineering automation tools, which summarize the information technology and engineering automation plan strategy
- Implementation of value management/value engineering studies.

The UPF Criticality Safety program follows the Y-12 plant program, which is principally driven by Y70-150, *Nuclear Criticality Safety Program,* and Y70-160, *Criticality Safety Approval System*. DE-PE-801768-A004, *UPF Criticality Safety Design Criteria*, contains general requirements for design and points to criticality safety process studies for specific requirements for the process systems.

Safety basis documents will be developed for each phase of the Project and will be submitted for the UPF Field Office (UPO) and the NNSA Production Office (NPO) to review, and for NPO to approve as required. Several analyses have been completed, such as a Preliminary Fire Hazards Analysis, criticality safety process studies, and Facility Safety hazards analysis documents. Results from these analyses and studies have been reflected in safety basis documents, as appropriate. The safety basis documents include RP-EF-801768-A057, *Conceptual Safety Design Report* (Superseded), RP-EF-801768-A076, *Preliminary Safety Design Report* (Superseded), and RP-EF-801768-A191, *Preliminary Documented Safety Analysis*. Consistent with DOE-STD-1189, *Integration of Safety into the Design Process,* safety structures, systems, and components (SSCs) and defense-in-depth or important-to-safety items are defined and requirements have been implemented into the system design criteria documents. SSCs have been assigned quality levels as defined in the safety basis documentation, in accordance with procedure Y15-95-200, *UPF Graded Approach to Quality*. The safety requirements necessary for construction of UPF have been documented in the Preliminary Documented Safety Analysis. During construction/startup, the Documented Safety Analysis will be developed and implemented to support the Project readiness for operations.

While this PMP defines the overall management approach for the Project, PL-PJ-801768-A017, *Systems Engineering Management Plan for the Uranium Processing Facility,* describes the UPF Project's strategy for the planning, control, and conduct of a fully integrated engineering effort. PL-PJ-801768-A017 describes the process and methods used to clearly define the Project mission and requirements; evaluate, select, and verify the best design from identified alternatives; control interfaces; manage risk; and integrate technical work and engineering disciplines.

Configuration Management (CM) is an integrated management process that establishes (1) the design requirements, (2) the design/operations documentation, and (3) the physical/functional configuration of a SSC and maintains consistency among these items. The CM program maintains effective control of a facility's as-built arrangement and operation/maintenance to

ensure compliance with approved and/or accepted technical design requirements and other governing criteria. Control of the facility's as-built configuration begins with the input into the facility design at the pre-conceptual stage and extends through final design, construction, startup, and operation.

In accordance with the programmatic configuration management requirements set forth in Y15-004PD, *Configuration Management Program,* the UPF Project has developed a Project-specific CM program as outlined in PL-PM-801768-A052, *UPF Configuration Management Plan*.

In addition, because BNI has been selected as the subcontractor to execute the UPF Project, Bechtel procedures have been incorporated into the UPF Project procedures to guide the design phase of the Project. See UPF-specific procedures in the reference list and on the UPF website.

The CNS Design Authority is responsible for defining the operational, high-level design, nuclear safety, and mission requirements for UPF engineering scope. The Design Authority is also responsible for ensuring that the design output accurately implements and meets the operational, high-level design, nuclear safety, and mission requirements. CNS Design Authority will control changes to the technical baseline through the Technical Change Control Board by reviewing proposed changes to ensure that they continue to reflect baseline design requirements. CNS Design Authority will ensure the technical adequacy of the requirements management process, ensuring design integrity of the structures, systems, and components throughout the UPF Project. These responsibilities are applicable regardless of whether the design is conducted fully in house, partially contracted to outside organizations, or fully contracted to outside organizations.

CNS Mission Engineering responsibilities are accomplished by a staff of Design Authority Representative (DARs), engineers, and system engineers. The staff is assigned by CNS Mission Engineering to the UPF Project to establish and maintain the design requirements and design bases, and to ensure that the design basis and design requirements are interpreted and applied correctly. Additionally, the staff is assigned to ensure that lessons and practices adopted by Y-12 for operations are applied into the design outputs, and to facilitate knowledge-transfer supporting Y-12 operation of UPF. DARs provide independence of review and oversight as necessary to ensure the design basis requirements are met and appropriately applied to procurement, construction, testing, startup, and turnover activities.

DARs for the UPF Project maintain functional and technical reporting responsibility to the CNS Mission Engineering design authority. They are accountable to the CNS Mission Engineering Design Authority to ensure criteria are incorporated into the design.

2.5.2 Procurement

BNI will execute UPF procurements using the Government-approved Bechtel Procurement System (BPS), which has been implemented on the Project with appropriate training for procurement staff. This approved system includes BNI procedures, processes, and the automated BPS. Additionally, BNI *pro forma* procurement documents have been modified as required by the CNS subcontract to BNI for UPF.

In accordance with the CNS to BNI subcontract (4300092953) and UPF Contracting Officer correspondence dated June 15, 2016, the Subcontract Notice and Consent Thresholds are documented in PL-PM-801768-A064, *CNS Surveillance Plan for Subcontract 4300092953 – CNS Supply Chain Management*. Bechtel uses several automation applications for supply chain

management tailored for engineering and construction projects. For UPF, the Procurement automation applications could include:

Bechtel Procurement System (BPS), which includes multiple applications that integrate all elements of the purchasing process from the requisition to receipt and maintenance of material and equipment. The system also has an interface capability with the Bechtel Oracle Accounts Payable system. BPS provides the automated system to track goods and services through its various modules and interfaces, as noted in the following list:

- **Requisitions**—prepare requisitions from organizations such as engineering, construction, and office services
- **Purchasing**—receive requisitions, prepare bid documents, prepare bid tabs, and prepare award documents and award purchase orders (goods) and subcontracts (services) with appropriate approvals
- **Expediting**—track supplier delivery of goods in accordance with Purchase Order requirements
- **Supplier Quality**—issue surveillance assignments, receive reports, and track deficiency reports, including anomaly trends
- **Traffic and Logistics**—plan and track shipments of goods from suppliers to jobsite as well as module assembly yards if applicable
- **Field Procurement**—receive material, track inventory and warehouse location, and issuance to construction. Also buy field material, track shipping damage and returns, monitor storage.

Other Procurement automation applications include:

- **Property Management (Sunflower)**—accountability database used to manage and control all US Government property that the Project obtains, through procurement, transfer or other means
- **Subcontract Administration (eSub)**—used to administer all subcontracts (i.e., bonding, changes, payments, etc.), to monitor and report progress, as well as to perform subcontract closeout
- **Purchasing Card (BCard)**—to procure goods and services where single transactions cost less than $10,000
- **Supplier Quality and Expediting Application Suite (SQEAS)**—used by both Supplier Quality and Area Expediting personnel to manage shop visits and track the manufacturing, quality, and progress of a supplier
- **Ready for Shipment Checklist (RFSC)**—provides an electronic approval process that verifies all requirements have been met for Purchase Order material line items deemed ready for shipment
- **Expediting Report Hub**—an automated application that generates the majority of the essential reporting done by Procurement Expeditors, reducing the non-value-added portion of an Expeditors time spent on this activity.

The BNI UPF Procurement organization is responsible for procuring the materials, equipment, and design and construction services necessary to support the Project. The procurement strategy is documented in PL-PR-801768-A002, *Procurement Execution Plan for the Uranium Processing Facility Project*. Teams consisting of Quality, Engineering, and Procurement personnel provide vendor qualification and surveillance as well as oversight for factory

acceptance testing in accordance with UPF-SUPPLIER-QUALITY-MANUAL, *UPF Supplier Quality Manual*.

In accordance with Y60-95-102PD, *Project Quality Assurance Program Description,* (QAPD), based on American Society of Mechanical Engineers (ASME) NQA 1 2008, *Quality Assurance Requirements for Nuclear Facility Applications,* with the 2009 addendum and DOE O 414.1D, *Quality Assurance*, the flowdown of Quality requirements to suppliers and contractors will be on a graded approach. For all SSCs with a quality-level other than Commercial, engineering completes a Technical Evaluation of Critical Attributes and Mitigation (TECAM). The TECAM specifies the critical attributes requiring verification to provide reasonable assurance that the assigned safety/critical functions have been achieved. Suppliers will be selected based on their ability to reliably meet the requirements of the technical specifications. The Project may supplement selected suppliers with additional surveillance, verification, inspections or tests that ensure products meet their intended form, fit, or function, as well as their critical attributes as defined in the TECAMs. Flowdown requirements may range from NQA-1 to selected industrial standards or commercial control depending on the review and quality level of the item being procured as well as the supplier's capabilities. The UPF Project has developed a commercial grade dedication (CGD) process for procuring materials and equipment meeting nuclear quality assurance safety requirements, including NQA-1a-2009, Part II, subpart 2.14 requirements for Commercial Grade Dedication, allowing the Project to make decisions on the best way to procure items that have a safety function.

The UPF Project team is actively pursuing and engaging small businesses for participation in the Project. The Project’s proposed execution strategy is to use small businesses for performing specific work packages matching their capability, or for providing staff augmentation to service organizations. The Project procurement team participates in externally sponsored events, such as the DOE Small Business Conferences, where suppliers learn about procurement opportunities. The Project has established strong support with a variety of organizations that are focused on supporting the UPF Project and its outreach efforts. Some of these organizations include the State of Tennessee's Economic and Community Development Organization, the University of Tennessee's Center for Industrial Services (CIS), and the Tennessee Manufacturing Association. These forums will allow interested suppliers and subcontractors to understand further UPF's mission needs, acquisition strategies, and schedules, as well as providing UPF with a directory of service and material providers. In addition to the Project’s outreach efforts, the State has offered to provide attractive relocation packages for businesses willing to relocate to Tennessee to serve the Project. The University of Tennessee's CIS is conducting training classes for businesses to learn the skills necessary to be qualified suppliers on UPF.

BNI has established its Project Small Business Goals for UPF, as shown in **Table 2**.

Table 2. BNI Small Business Goals

Category	Goal
Small Business	29%
Small Disadvantage Business	5%
Women Owned Small Business	5%
Veteran Owned Small Business	3%
Service Disabled Veteran Owned Business	3%
HUBZone	3%

The Bechtel approach to procurement involves establishing a variety of strategies that best fit the market availability and the Project's risks. Procurements are aligned by products. **Table 3** describes each of the four core tiers and their associated supply chain objectives.

Table 3. BNI Procurement Strategies

TIER	Description	Supply Chain Objective
I	Primary Process Engineered Equipment	Each acquisition will be evaluated based on its own merits to determine the appropriate acquisition strategy and basis of award.
II	Custom Fabrication and Equipment	
III	Pre-engineered Equipment	
IV	Commercial Off-the-Shelf	

Each major product is assigned one of these tiers, which helps establish the approach to vendor selection. The requisition packages are delineated in RP-PJ-801768-A015, *UPF Material Assignment Schedule (MAS)*, which is a listing of procurement packages that the Procurement organization uses for planning purposes. All requisition packages are added to BPS and the integrated Project schedule for appropriate tracking, monitoring, and control.

2.5.3 Construction

BNI will serve as the Construction Manager/General Contractor and provide oversight and integration of direct-hire construction activities and multiple construction subcontractors. CNS will provide the direct-hire resources at the request of BNI. BNI field superintendents will monitor craft performance and provide feedback to CNS Construction Management regarding status and issues encountered. The construction execution strategy is detailed in PL-CM-801768-A001, *Construction Management Plan and Execution Strategy*. UPF Construction Management is responsible for:

- Construction planning
- Constructability reviews
- Supporting Procurement for solicitation and award of construction subcontracts
- Receipt and warehousing of materials and equipment through the Procurement organization
- Management and oversight of construction subcontracts
- Manage direct-hire construction work

- Inspection and acceptance of construction activities
- Interface and support of federal direct contractors.

UPF construction will occur in a highly congested area, and interfaces will be required between multiple BNI subcontractors, direct-hire craft personnel, and potentially other UPO direct contractors. To facilitate the level of coordination required, Construction has instituted a UPF Construction site area map, in addition to conducting a plan-of-the-day meeting and requiring all personnel accessing the UPF Construction site to be briefed and to sign in and out of the area. The Project will have onsite and off-site warehousing to receive, store, protect, and maintain vital and sensitive equipment and materials. Shuttle services will transport craft between parking areas and the construction work face. Reference PL-CM-801768-A021, *UPF Project Site Infrastructure Plan*, for detail regarding on-site UPF Construction support facilities, parking, traffic flow, and equipment logistics.

With the approval of the CD-2/3 package for the MPB, SAB, and PSF subprojects in March 2018, staffing for the scope of construction work began immediately. For a number of potential reasons, key craft resources may be in high demand and of limited availability. Reference RP-PM-801768-A065, *Uranium Processing Facility Labor Assessment*, conducted in July 2017. Plans to attract and retain the quantity of qualified key craft resources required to build UPF have been discussed with the local building and construction trade unions, and this open dialogue will continue throughout the construction phase of UPF. Relationships have also been established between corporate partners at the unions' national levels, and will be relied upon as Construction Management identifies the need for qualified craft labor relative to Construction scheduling strategies.

Automation tools required to support UPF Construction have been deployed. These tools include a personnel tracking system (proximity badges) to ensure accountability for emergency management purposes and for daily reporting, and the TEAMWorks software, which is BNI's corporate software for tracking equipment and material and quantity reporting.

CNS Construction Management and BNI Construction Management have an ICD defining the roles and responsibilities and authorities between the organizations. The ICD, coupled with close coordination and communication between CNS and BNI Construction Management, will ensure that craft needs are communicated and documented. CNS will hire the direct-hire craft. UPF Human Resources (HR) will in-process the craft once the Project transitions to an off-site onboarding facility. This will allow for more efficient onboarding of craft for the Project.

2.5.4 Startup and Commissioning

The BNI subcontract SOW includes testing/commissioning and turnover of the UPF Project to operations for cold operation and readiness preparation. Testing and commissioning are necessary to ensure that the as-installed systems are fitted according to design, and that the systems and processes perform to design-specified functional acceptance criteria, ensuring that systems and processes are capable of meeting operating requirements. A comprehensive and coordinated test program for UPF will identify the essential elements to validate to ensure that components, systems, integrated systems, and processes within specific areas are fully functional and will support safe and reliable operations. The UPF testing program will validate structures, systems, and components (SSCs) in a cost-effective manner to allow for an orderly transition to operations.

PL-PJ-801768-A009, *Uranium Processing Facility Commissioning Management Plan*, describes the process, roles and responsibilities, and essential elements of commissioning. For the UPF Project, the commissioning process begins in the design phase, continues through construction, testing, turnover to operations, and readiness confirmation.

PL-SU-801768-A001, *Uranium Processing Facility Project Test Plan,* provides guidelines for the implementation of UPF preoperational testing activities and the compilation of records and documentation required in accordance with E-PROC-3011, *Test Program Manual*. A graded approach will be implemented in accordance with UPF-specific procedures for UPF testing activities to ensure that proper resources and levels of effort are applied to those areas most important to the achievement of safety and reduction of risk in an efficient manner. A strategy for Project completion for each subproject is defined in PL-PM-801768-A048, *UPF Project Completion Criteria Strategy*, and PL-PJ-801768-A030, *Key Performance Parameter Verification Plan for the Uranium Processing Facility Main Process Building, Salvage and Accountability Building, and Process Support Facility Subprojects.*

The NNSA has approved the CNS Startup Notification Report addressing the readiness reviews planned for UPF. The UPF Project will conduct a single Contractor Operational Readiness Review (ORR) for the UPF facilities and processes. Following the Contractor ORR, NNSA will perform an ORR in time to receive startup authorization. These readiness reviews will ensure that people, plant equipment, and procedures are ready to operate and maintain the equipment, systems, and facilities.

As part of the Contractor ORR process, Implementation Validation Reviews will be performed for the facilities and the processes.

Each subproject that involves security-related features or that could affect the security strategy for Y-12 will undergo a screening evaluation in accordance with Y19-51-006, *Safeguards and Security Specification Documents*, that includes the various components required for operation, including post orders, personnel training, and the compensatory measures that could be needed. This Specification Document assists Security with the planning, documenting, and performance of work in an integrated manner, meeting the core functions and principles of Integrated Safety Management (ISM) and Integrated Safeguards and Security Management (ISSM).

The verification of readiness of security features is documented in accordance with DOE O 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, and in PL-PJ-801768-A009, *Uranium Processing Facility Commissioning Management Plan*.

2.5.5 Transition to Operations/Closeout

Subproject plans have been developed for UPF's subprojects to summarize the completion strategy for each subproject and transition of completed scope from one subproject to the next.

The strategy for UPF's transition from Construction to Operations is currently documented in PL-PJ-801768-A009, *Uranium Processing Facility Commissioning Management Plan*, which depicts the commissioning process through the readiness reviews and startup authorization. PL-PJ-801768-A009 will be supplemented by Y-12's PLN 9212-F-0099, *9212 Exit Strategy*, which describes the main activities associated with moving EU operations out of current facilities and into UPF following start of operations. EU operations transition is outside the scope of the UPF Project.

The plan for maintenance of UPF and its processes is documented in PL-MA-801768-A001, *Uranium Processing Facility Maintenance Execution Plan*, and PL-MA-801768-A002, *UPF Maintenance Transition Plan*.

Turnover of Project components that will belong to Security will be scheduled as separate activities from turnover to Operations. Security will take advantage of early opportunities to begin familiarization and training inside the facility on the off shifts even while construction activities continue. This early-phase approach allows security to receive approval from NNSA Headquarters in time to support Operations during their cold ops activities and allows opportunities for revision to post orders, training, and continued familiarization with the facility.

The UPF Project's scope will be complete when testing and readiness activities are successfully concluded, startup authorization is granted, all systems are turned over to Y-12, and all documentation is transferred to the Facility Records Document Management Center (DMC).

Following startup authorization, a formal CD-4 to close out the UPF Project will be initiated. The CD-4 request will be based on the NNSA ORR for UPF. Project closeout activities will include Project Lessons Learned, technical cost and schedule baseline accomplishments, final cost report, photographic documentation, and Project completion status documented in initial and final Project closeout reports.

2.5.6 Records Retention

Records management and document control for the UPF Project is managed in accordance with Y15-95-806, *UPF Records Retention and Turnover*, applicable UPF procedures, and in accordance with DOE O 243.1B, Chg 1, *Records Management Program*. Document control and records management are accomplished through the following process:

- Identifying potential documents to be created
- Identifying those documents that require special controls during use
- Establishing clear direction for the UPF Project team regarding responsibilities for records and for turnover to Y-12
- Establishing and maintaining a consistent and controlled process for maintaining these records.

Records developed in the execution of the Project are provided to, managed by, and maintained by the Project DMC as described in PL-PJ-801768-A001, *Document Control and Records Management Plan for the Uranium Processing Facility Project*. InfoWorks™ is used to manage the records and to perform document control for UPF. A records retention and turnover plan will be prepared and maintained to facilitate Project closeout.

2.5.7 Automation

The UPF Project's Information Systems and Technology organization provides a number of automation elements that enable the Project to perform work. These services include supplying personal computers and related equipment, providing user accounts, delivering user support, handling application deployment and support, furnishing application software licenses, delivering data access and storage, managing cyber security in accordance with the customer requirements, and maintaining network connectivity at all UPF locations. A UPF automation plan has been developed that identifies all applications required to support the execution of the UPF Project. An ICD is in place documenting the sharing of services from CNS to UPF.

2.5.8 Training

The Training organization for the UPF Project includes programs and processes to ensure that Project personnel are prepared to perform their assigned tasks. The processes include development, scheduling, maintenance, and delivery of Project-specific training courses. The Training organization is responsible for monitoring and reviewing regulatory compliance requirements to ensure that employee training meets the intent of a safe, secure, and knowledgeable workforce. An ICD is in place documenting the sharing of services between CNS and UPF.

2.6 Key Activities for Successful Execution (KASE)

The UPF Project used the KASE process up through Gate Review 6, Major Construction. Its use increases assurance that the Project will be successful because of the focus placed on key activities that occur during each phase of the Project. The process also provides an additional avenue for BNI functional management oversight and reach-back into corporate expertise and support.

Key benefits of the KASE process include the following:

- Ensures a thorough approach to Project execution
- Provides a self-assessment process driven by the Project Director
- Focuses the Project team on timely development and quality of deliverables
- Defines a process by which functional management, both on-Project and affiliate company, can provide consistent oversight
- Increases the certainty of a successful Project outcome.

In August 2017, CNS submitted to UPO, via Letter COT-NNSA-UPO-PM-801768-A287, the results of the KASE Gate Reviews for 4B, 5, and 6. UPO participated in those reviews. In the future, CNS plans to use functional and technical readiness reviews periodically to increase awareness and levels of preparedness for performing specific activities, thereby demonstrating a level of adequacy and increased visibility, and ensuring a higher probability of success. These reviews will provide an appropriate level of UPO participation, as defined by the Project team in consultation with UPO.

3.0 PROJECT BASELINE

3.1 Scope of Work

The UPF Project's scope is defined in a technical baseline consisting of requirements, range of work, and key performance parameters. As Project work progresses, the technical baseline matures to include other documents, including final design details and safety basis documentation, which will form the basis for the design of record. The technical baseline documents, including safety basis documentation, are compiled in RP-PM-801768-A062, *Final Design Report for the UPF Project MPB, SAB, & Support Facilities*, and RP-PM-942600-A001, *Final Design Report for the UPF Mechanical and Electrical Equipment Building*.

The Project scope is described in WBS-PC-801768-A001, *Uranium Processing Facility Project WBS Dictionary.* The scope is outlined in more detail in the following documents:

- RP-EG-801768-A086, *UPF Project Scope of Facilities*
- PL-PM-801768-A058, *UPF Project Definition for CD-3B Long-Lead Gloveboxes, Skids, and Select Procurements*.
- PL-PM-942404-A001, *UPF Project Definition for CD-2/3 Process Support Facilities (PSF) Subproject*
- PL-PM-922601-A001, *UPF Project Definition for CD-2/3 Salvage and Accountability Building (SAB) Subproject*
- PL-PM-922600-A001, *UPF Project Definition for CD-2/3 Main Processing Building (MPB) Subproject*
- PL-PM-801768-A054, *UPF Project Definition for CD-2/3 Mechanical Electrical Building (MEB) Subproject*

These documents contain scope descriptions that are summaries of the facilities and processes to be constructed by the UPF Project. Engineering documents, drawings, and calculations must be consulted for specific details on facilities, equipment types and sizes, and the work activities necessary to complete the UPF Project.

The UPF Project has identified, and NNSA has accepted, a defined the set of standards and requirements under which the design of UPF shall be conducted. This set of standards and requirements includes federal, state, and local laws and regulations, as well as DOE directives, such as orders, manuals, and standards. These standards and requirements, as well as other regulations, are controlled through PL-RM-801768-A001, *UPF Design Code of Record*. They are also referenced in individual sections of the Design Criteria. Changes to the Design Code of Record require approval of the Senior Management Change Control Board, chaired by the Federal Project Director (FPD).

Additional contractual documents and standards are identified in PL-RM-801768-A002, *Other Basis Records for the Uranium Processing Facility Project*. Changes to Other Basis Records are controlled by the Senior Management Change Control Board.

3.2 Schedule Baseline

The UPF Project schedule includes activities to execute planning, engineering/design, procurement, facility construction, equipment installation, startup testing, and operational readiness. For schedule development, the Project is using Primavera P6 Professional Project Management™ software. The detailed Project schedule is contained in a P6 database from which schedule reports are issued periodically. Upon submittal of a subproject baseline, the Project will maintain and update Level 1 and 3 schedules on a monthly basis. The Level 1 schedule summarizes the overall Project, showing start/finish for the Project phases and the major milestones. This Project Management Schedule is usually a one-page document. The Level 3 Integrated Project Control Schedule uses the critical path method to show the logic dependencies of engineering, procurement, contracts, construction, and startup/readiness activities, major and intermediate Project milestones, and the critical path of the Project. The level of detail demonstrates key interfaces and is resource-loaded to provide control metrics. The Level 3 Integrated Project Control Schedule is used to monitor progress and to provide Project reports and submittals.

The UPF Project will schedule health metrics as requested by UPO and PM30, inclusive of Acumen Fuse, are run monthly and provided to UPO (i.e., Christenson, Folden, Bocskovits,

Clayton, and Carson). The reference to “quarterly” will be deleted. The ranges used in the metric will be prepared and reviewed with UPO.

The Level 3 baseline schedule will be updated monthly with approved scope changes through Baseline Change Proposal (BCP) process, as necessary

3.3 Cost Baseline

The UPF Project baseline has been established by the accumulation of the subproject CD-2/3 baselines, as permitted by DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*

Upon approval and negotiation of the final CD-2/3 package in 2018, the cost and schedule baseline for the overall Project will be established by the collective total of the subproject baselines.

To protect the approved baseline, the Project will use a disciplined change control process to make adjustments. The objective of this approach is to initiate the baseline review as soon as practicable, while continuing to update the baseline as the Project evolves.

3.4 Management Reserve and Contingency

Contractor management reserve (MR) for the UPF Project is comprised of three categories: cost estimate uncertainty, schedule uncertainty, and contractor-owned technical and programmatic (T&P) risk, while federal contingency consists of government-owned T&P risks. Care is taken during MR and contingency development to avoid any overlap of T&P risk impacts with cost estimate uncertainty and schedule uncertainty.

Cost estimate uncertainty reflects the degree of confidence in the scope definition and design components upon which the cost estimate is based, and is intended to account for uncertainties in quantities, installation rates, job performance factors, labor rates, or overheads associated with the estimate. The scope within each WBS element is analyzed to determine the most appropriate best case, most likely, and worst case values for the WBS element. These values are used in a Monte Carlo simulation using Crystal Ball™ software. The cost estimate uncertainty included in the cost estimate is based on an 85% confidence level in accordance with *NNSA Cost Estimating Guide* (50.005).

Schedule uncertainty is the confidence that the Project schedule can meet the completion objectives; it is intended to account for potential schedule impacts, such as issues of resource availability. The SOW associated with each deliverable is analyzed by members of the Project team to determine the most appropriate best case, most likely, and worst case values for the related schedule activities. These values are used in a Monte Carlo simulation using Primavera™ risk analysis software to determine the schedule reserve duration needed for the Project at an 85% confidence level. The resulting duration is then multiplied by the estimated “hotel load” to determine the additional cost impact of the corresponding schedule reserve. The resulting schedule reserve duration is included in the Project schedule in accordance with the scheduling procedure and best practices, while the cost impact is also included in the cost estimate.

The T&P risk analysis accounts for additional MR and federal contingency attributed to discrete risks outside the confidence levels established for the cost estimate and schedule. The T&P risk cost and schedule mitigations, as defined by each risk owner, are extracted directly from the

UPF Risk Register. Schedule mitigations are indicated as a number of weeks; that number is applied to the forecasted hotel load to determine the cost impact.

Management reserve held by CNS is comprised of the following three elements: cost estimate uncertainty, schedule uncertainty, and T&P risk. Federal cost contingency and Federal schedule contingency are not included in the CD-2/3, but will be included later in accordance with DOE Guide 413.3-7A, *Risk Management Guide*, when directed by NNSA.

Total Project Contingency is the sum of the contractor's MR and NNSA's contingency.

3.5 Baseline Change Control

No change shall be made to the Performance Baseline elements without review and approval of the appropriate-level Baseline Change Control Board (BCCB). Change thresholds for scope, schedule, and cost are formally established in PL-PJ-801768-A006, *Project Execution Plan Project Number 06-D-141*, at the four DOE/NNSA approval levels. Change thresholds for subprojects are established in each subproject's execution plan. The Contractor BCCB is chaired by the UPF Project Director. The UPO BCCB is chaired by the FPD. All baseline changes beyond the UPF Project Director's approval thresholds must be submitted to and approved by the FPD and the UPO BCCB. If a change is beyond UPO's approval thresholds, UPO may endorse and forward the proposed change to the next higher level board.

At the Project level, a request for a baseline change is initiated by preparing a formal BCP. BCPs are processed in accordance with the Project Execution Plan (PEP). The BCP form, along with back-up documentation that provides the rationale and justification for a change to an approved baseline, is reviewed by the Contractor BCCB.

The Contractor BCCB meets, as needed, to consider and deliberate each request, which will then be (1) approved or disapproved if within the Board's approval authority, (2) endorsed and forwarded to the FPD/UPO Board if approval authority is exceeded, or (3) deferred if additional study and/or information is needed. Authorization for work to proceed is defined in the EVMS system description and in accordance with processes and procedures.

3.6 Earned Value Management System – System Description (EVMS-SD)

The process for preparing standardized, consistent, and traceable Project cost and schedule baselines is defined in E-SD-2013, *Earned Value Management (EVM) – System Description (SD)*. The processes for planning and developing schedules and maintaining them under configuration control are prescribed in E-SD-2013. Project performance is updated monthly and transmitted to UPO through the monthly progress report. Cost control and variance reporting is at designated levels of the WBS.

The WBS is used to establish and track budgets and schedule performance for each control account. High priority is placed on early warning of potential baseline impacts and the estimate at completion (EAC). This is accomplished through a Project trend program as outlined in E-SD-2013. The trend program is designed to provide the Project team with early identification and warning of potential changes in baselines with the philosophy that the effect of any change can be mitigated if identified as early as possible.

DOE O 413.3B requires that the industry standards for project control systems, described in SAE – EIA-748-C, *Earned Value Management Systems*, are implemented on all projects with TPC greater than $20 million.

As required by DOE O 413.3B, annual surveillances of the UPF EVMS will be conducted by the CNS Project Controls compliance group to ensure the UPF Project remains in compliance with the certified Y-12 EVMS.

The UPF Project Director is responsible for establishing the reporting and control mechanisms to monitor Project activities against the approved baseline. Monthly progress reports are prepared by the Project team under the direction of the UPF Project Director. Project performance is updated monthly and transmitted from the M&O to UPO as part of the monthly progress report including PARS II.

When all costs are incurred against a subproject scope, a final closeout report will be prepared outlining Lessons Learned, best practices, and customer feedback. In addition, final cost reports and Project completion forms will be prepared and forwarded to NNSA by the Project Director upon closeout of the cost accounts.

4.0 PROJECT EXECUTION PLAN

4.1 Organization

While the UPF Project is under the prime contract between CNS and NNSA, CNS/BNI will assemble a fully integrated Project team segregated from the M&O to execute the Project. The structure of the UPF Project team, as described in **Section 1.2**, includes functional managers from CNS and BNI. These managers are responsible for the management and integration of the UPF team members assigned to the Project in their area of responsibility, as well as the contractors and subcontractors selected to perform specific Project functions.

4.2 Project Interface

4.2.1 General

The primary point-of-contact with the NPO/UPO is the Project Director. While formal correspondence and agreements will be at this level of the organization, there will and must be dialog throughout the organization. Formal lines of communication will be established between the UPF team and the subcontractor and supplier organizations.

4.2.2 Zippering Plan

PL-PM-801768-A037, *UPF-UPO Zippering Plan*, was developed and issued to involved members of the Project team. This plan identified the appropriate points-of-contact in the CNS, UPF, NPO, and UPO organizations. This plan identifies the primary interfaces, and it should not hinder communication between other members of the respective organizations. Alignment meetings with those identified on the Zippering Plan will be conducted periodically to allow the sharing of ideas and resolution of any interface issues that may arise. These alignment meetings provide an opportunity to establish stronger relationships between all members of the team.

4.2.3 Reviews

Project reviews are integral to tracking performance. Reviews communicate ongoing progress, identify issues and concerns, and actively involve appropriate management levels in oversight of the Project. Reviews will help ensure readiness to proceed to a subsequent Project phase,

ensure progress of Project efforts, confirm functional integration, identify and resolve issues at the earliest time, support event-based decisions, and control risk.

The UPF Project conducts and undergoes a wide range of reviews to ensure performance and to promote confidence that the Project is progressing as anticipated. Periodic reviews examine Project status, trends, design, and construction progress for systems and interfaces. Included are monthly reviews, quarterly reviews, NNSA-required reviews, peer reviews, and team reviews. BNI's home office Functional Management will be involved in these reviews when required.

Special reviews are conducted, as needed and requested, to address areas of concern, respond to specific events, or to status the Project at a given point in time.

- Technical and design reviews are conducted in accordance with engineering and design procedures and as identified on the Project schedule. Specific reviews that should be included are being evaluated and added to the Project schedule. To support the submittal of the CD-2/3 baselines, reviews were performed at conceptual design, preliminary design, and final design.
- A Technical Independent Project Review was held to verify technology decisions and address design uncertainties related to such areas as alternative systems, constructability, requirements, design, technology, system verification, physical configuration, and operability and reliability.
- External Independent Reviews will be conducted at each CD request to validate the performance baseline and confirm that the Project is ready to proceed into the next phase.
- Defense Nuclear Facilities Safety Board (DNFSB) reviews are conducted as needed to help ensure safety is integrated into the Project.
- Office of Enterprise Assessment reviews are conducted periodically to evaluate whether national security material and information assets are appropriately protected and whether Departmental operations provide for the safety of its employees and the public.

Near the end of the Project, an ORR will be conducted to evaluate the readiness of completed facilities, systems, equipment, procedures, personnel, and supporting and interfacing systems and organizations for commencing facility operation.

4.3 Nuclear Safety Culture

The Project developed a Nuclear Safety Culture Policy Statement and a Program Plan. The policy establishes the expectations and commitment by the NNSA and CNS to foster and maintain a positive nuclear safety culture during all work performed on the UPF Project. The plan outlines steps the Project would take to implement health, safety, and security recommendations in a unified approach among government and contractor staff to reinforce the core values of Safety, Security, and Quality.

The Program Plan, PL-SH-801768-A006, *Nuclear Safety Culture Program Plan for the Uranium Processing Facility Project,* served as the foundation document in establishing and maintaining a positive nuclear safety culture. The program blends the theories and concepts of two prominent safety management programs, organizational culture change and behavior-based safety. Organizational culture change focuses on establishing and reinforcing desired management behaviors starting with the most senior managers, while behavior-based safety

focuses on reinforcing or correcting worker behaviors that are observed on the front line. Over the life of the Project, the two programs will enable the UPF to create a single, unified Nuclear Safety Culture Program.

An additional concept incorporated into the UPF Nuclear Safety Culture Program is a safety-conscious work environment (SCWE). SCWE is an environment in which employees feel free to raise safety concerns, both to their management and to a regulatory agency, without fear of retaliation.

Implementation of the UPF Nuclear Safety Culture Program, including SCWE, is founded on several robust institutional programs listed below. The program will build on this foundation to establish a better understanding by workers and management of the connection between Project and institutional safety activities:

- Integrated Safety Management Program
- Voluntary Protection Program
- Environment, Safety and Health Program
- Construction Safety and Health Program
- Human Performance Improvement Program
- People-Based Safety Program
- People-Based Quality (PBQ) Program
- Safety Design Strategy
- Nuclear Criticality Safety.

Activities to implement the program include:

- Establishing enabling policies and procedures
- Providing relevant and timely training
- Communicating effectively
- Recognizing and reinforcing appropriate behaviors while correcting inappropriate behavior
- Evaluating the effectiveness of the program
- Adjusting methods based on the evidence complied during the evaluation.

Because safety culture is relatively resistant to change, a long-term approach to improving safety culture is appropriate. Activities will be planned and executed based on a long-term logic model that will target certain organizational traits:

- Environment for raising concerns
- Problem identification and resolution
- Questioning attitude
- Respectful work environment
- Personal accountability
- Work processes
- Continuous learning
- Effective safety communication
- Leadership safety values and actions

- Performance monitoring through multiple means.

4.4 Quality Assurance

Quality Assurance (QA) includes all the processes and activities required to ensure that product and performance quality meet Project objectives as well as customer requirements and expectations. The UPF Project QA Program is detailed in the Y60-95-102PD, *UPF Quality Assurance Program Description*. The UPF QAPD meets the requirements specified in 10 CFR Part 830, *Nuclear Safety Management*, Subpart A, *Quality Assurance Requirements,* and DOE Order 414.1D, *Quality Assurance*. Also included are the application of the national consensus standard ASME NQA 1 2008, *Quality Assurance Requirements for Nuclear Facility Applications*, Parts I and II; and NQA 1a 2009, Addenda to ASME NQA 1 2008, *Quality Assurance Requirements for Nuclear Facility Applications*. The QAPD is approved by UPO, and it defines the Project-specific approach to meeting the quality requirements. The Project's quality requirements and processes ensure that design development, procurement, construction, startup, and turnover to operations satisfy the objectives of the UPF Project and comply with applicable DOE/NNSA quality requirements. Implementation of quality program requirements and administrative management requirements from PL-RM-801768-A002, *Other Basis Records for the Uranium Processing Facility Project*, are tracked through the UPF Programmatic Requirements Management System (PRMS) database.

The UPF Quality personnel consist of CNS and BNI quality staff separated functionally by company and by roles. The separation provides sufficient independence for CNS to evaluate BNI performance through independent assessments and oversight activities. The separation and activities performed by the CNS UPF QA personnel and the BNI Quality personnel are also defined in the QAPD.

The CNS UPF QA organization under the direction of the UPF Quality Assurance Manager (QAM), CNS, is responsible for performing CNS independent oversight of the BNI scope.

The UPF BNI Quality personnel, under the direction of the Project Quality Manager (PQM), BNI, are responsible for implementation and oversight of the quality requirements flowed down for the BNI subcontract through PL-QA-801768-A001, *Bechtel National Incorporated (BNI) Uranium Processing Facility (UPF) Project Quality Assurance Plan (QAP)*, which is approved by CNS.

The UPF BNI Quality organization interfaces with UPF Project Management, Engineering (including work performed in other Bechtel office locations), Procurement, and Construction organizations and provides subject matter expert advice in Project administration, design, procurement, construction, and startup of the Project. The UPF BNI Quality organization also maintains the Project suspect/counterfeit item programs that implement specific attachments to DOE O 414.1D. The UPF Project is utilizing a Project-specific software quality assurance (SQA) procedure for implementing the safety software requirements specified by the CNS Enterprise QA program. To help ensure quality at all work levels, the Project has implemented a PBQ program and the Quality Absolutes of following procedures, conducting job briefs, adhering to verification/hold points, owning your signature, and stopping when unsure.

The UPF Project employs a graded approach to quality so that resources applied correspond with the importance of achieving Project, site, and customer goals. The graded approach to quality is described in Y60-95-102PD and is implemented through the graded approach in Y15-95-200, *UPF Graded Approach to Quality*.

This graded approach to quality shall not compromise public, employee, or facility safety, or adversely affect the environment, and will comply with applicable requirements, rules, and regulations. The graded application of facility and activity requirements will be dependent on the hazards and/or level of risk associated with the activity or SSCs under consideration. The scope, depth, and rigor of the quality management system's application of requirements will be determined by the use of a grading process before performing the activity. The purpose of grading will be to select the controls and verifications to be applied to various items and activities consistent with their importance to safety and other high-level Project criteria. The graded approach to quality will not be used to "grade quality assurance criterion to zero," which has the effect of eliminating all controls or verifications over the activity.

4.5 Environment, Safety, and Health

The interface to the Y-12 ES&H organization is through the CNS UPF ES&H Manager. To define this relationship with a focus on specific needs and level of involvement between the CNS ES&H organization and the UPF ES&H organization, an ICD has been developed and approved.

Integrated Safety Management System (ISMS) requirements from ES-SD-2009, *Integrated Safety Management,* and CNS-MNL-352254, *Integrated Safety Management (ISM) Program,* and associated implementing procedures will be incorporated throughout the design, construction, and startup phases of the UPF Project. BNI has issued PL-SH-801768-A007, *Bechtel National Inc. (BNI) Uranium Processing Facility (UPF) Environment, Safety, and Health (ES&H) Plan*, to describe the safety management system that BNI will use to achieve safety performance excellence and comply with the provisions of Department of Energy Acquisition Regulation (DEAR) Clause 970.5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution*. The Integrated Safety Management approach is described within that document that mirrors the Y-12 approach. The Project team is committed to working safely and recognizes that line-management responsibility, accountability, good management systems, and worker involvement are key elements to an effective safety process. Implementing ISMS principles during design will ensure that the final design produces a safe workplace. Specifically, the design will ensure adequate protection from hazards for the public, the workers, and the environment through engineered controls supported by additional administrative controls. This approach will provide a process that will prevent accidents and provide containment, preventing or mitigating accidental release of hazardous materials into the environment. By protecting the workers to the highest degree possible and using a concept of maintenance with limited exposure, the co-located worker, the public, and the environment are protected.

The Y-12 ISMS is in compliance with DOE G 450.4-1C, *Integrated Safety Management System Guide*, and is also supported by Y15-636, *Integrated Safety Management Program*. Y-12 ISMS is also applicable to subcontractors; Integrated Safety Management requirements are incorporated into subcontract documents, as applicable.

As a major subcontractor, BNI has developed the CNS-approved ES&H plan, PL-SH-801768-A007, as well as PL-SH-801768-A002, *Construction Waste Management Plan for the Uranium Processing Facility*. These plans outline the programs and procedures that the UPF Project will use to control environmental, safety, and health hazards associated with activities during design and construction of the facility. The BNI ES&H Plan defines requirements and related roles, responsibilities, and interfaces in accordance with applicable federal, state, and local laws, regulations, and DOE Orders. Hazard controls will be incorporated as part of design and during field installation. Design outputs and requirements will include

finalized drawings, specifications, and test requirements that will incorporate any hazard controls identified. CNS has developed PL-SH-801768-A008, *Uranium Processing Facility Project CNS ES&H Oversight Plan*, which ensures that elements of subcontractors' approved ES&H and Waste Management Plans are being effectively implemented as approved.

The UPF Project shall comply with all applicable environmental laws and regulations, including the Clean Air Act, the Clean Water Act, National Emission Standards for Hazardous Air Pollutants, and associated Tennessee regulations. Permits for construction are now in-hand and will be extended and modified as necessary. The National Environmental Policy Act (NEPA) requires an evaluation of all federal actions with the potential to affect the environment. NEPA evaluation of the UPF Project includes the development of the DOE/EIS-0387, *Final Site-Wide Environmental Impact Statement for the Y-12 National Security Complex,* and subsequent Record of Decision (ROD). The process has included NEPA scoping with public comment, DOE Headquarters review, issuance of the ROD, and the development of a Supplement Analysis (DOE/EIS-0387-SA-01) and amended ROD based on the results of Project studies and evolving Project design.

PL-PJ-801768-A010, *Uranium Processing Facility Operational Waste Management Plan,* identifies the waste streams that will be generated by UPF when in operation and defines the treatment, storage, and disposal path for each stream in accordance with regulatory requirements, with an emphasis on minimizing the generation rates and maximizing the diversion rates for all categories of waste. This plan will be updated prior to final design.

The UPF Project has integrated 10 CFR 830, *Nuclear Safety Management*, and 10 CFR 851, *Worker Safety and Health Program*, into Project execution through implementation of CNS MNL-352254, *Integrated Safety Management (ISM) Program*; the UPF ES&H Oversight Plan; and the BNI ES&H Plan. The following essential elements are emphasized to ensure industrial safety and occupational health:

- Management responsibilities and worker rights
- Hazard identification and assessment
- Hazard prevention and abatement
- Safety and health standards
- Functional area responsibilities
- Training and information
- Recordkeeping and reporting.

The UPF Project maintains an effective safety program to achieve the program's target of Zero Accidents; work will not be conducted until adequate safety controls are in place. The UPF Safety Program is consistent with the requirements of federally mandated regulations, Y-12 policies, and applicable DOE orders, and Y73-001, *Y-12 Safety Program*. All UPF activities are expected to adhere to Y72-001, *Environment, Safety, and Health Policy,* which is implemented through the application of the guiding principles of the Y-12 ISMS. In addition, because BNI has been chosen as the subcontractor to execute the UPF Project, Bechtel procedures have been adopted for the Project; see the UPF-CP ES&H procedures on the UPF website.

The UPF Project also maintains an Industrial Hygiene Program to provide a work environment conducive to the health and wellbeing of employees and subcontractor personnel through the anticipation, recognition, evaluation, and implementation of recommended controls for chemical, physical, biological, and ergonomic stresses associated with the design and construction phases of the UPF Project. In providing this support, the Project will solicit expertise from the

Y-12 Industrial Hygiene organization, which provides subject matter experts and technical support in the areas of industrial hygiene, demolition, construction, and maintenance support.

4.6 Safeguards and Security

As an integral part of Project planning and execution, Safeguards and Security (S&S) has been considered and will be incorporated into all Project phases. Safeguards and Security establishes the parameters of physical security concerning access control, intrusion alarms, construction of vaults, property protection features, Operational Security, Nuclear Materials Control and Accountability, cyber security controls, and architectural surety built into the facility. An ICD has been developed to document the relationship between the UPF S&S organization and the Y-12 S&S organization.

Safeguards and security requirements for UPF have been addressed and, along with safety, quality, and environmental protection, will be integrated throughout all Project phases. The S&S requirements and costs have been incorporated into the Project baseline. As part of that process, S&S standards and requirements are incorporated into the design. Construction and testing addresses and confirms S&S design requirements, which also affect other components of the execution plan, such as emergency preparedness planning, communications, and procurement planning.

The UPF Project is committed to implementing Integrated Safeguards and Security Management (ISSM) methodology across all Project functions that affect safeguards and security. This methodology ensures that the SOW is well defined, security risks are analyzed, and measures are developed and implemented to ensure that security risks are mitigated. This methodology also includes feedback and a continuous improvement process.

The Project's security objectives include engineered controls, designed-in active and passive delays, and protected engagement capabilities to produce a robust and cost-efficient protection posture separated from routine operations. A vulnerability assessment (Y/JA-525, *(U) Uranium Processing Facility CD 2/3 Vulnerability Assessment Report*) identifies and evaluates the security vulnerabilities of the current design.

4.7 Contractor Assurance

DOE O 226.1B*, Implementation of Department of Energy Oversight Policy,* requires contractors to develop and implement comprehensive assurance programs. CNS has issued E-SD-2006, *CNS Contractor Assurance System Program Description,* which is applicable to both Y-12 and Pantex. The UPF Project uses the CNS Enterprise Contractor Assurance System (CAS), augmented as needed for Project-specific application through a UPF supplemental program description, Y15-95-0030PD, *UPF Supplemental Program Description to the CNS Contractor Assurance System*, which delineates the implementation of the CNS CAS as applicable to engineering, procurement, construction, startup, and turnover to operations of the UPF facilities and processes. Y15-95-0030PD is implemented through procedures identified in the UPF PRMS.

To ensure contractor performance, the UPF Project applies formalized processes for identifying and managing the flowdown of requirements, oversight and assessment of performance, and for identifying, correcting, tracking, and trending of program and performance deficiencies through the development of corrective action plans. The UPF CAS includes management assessments and surveillances, incident/event reporting, worker feedback, issues management, and Lessons Learned. Additionally, the UPF CAS contains performance indicators to identify, resolve, track,

trend, and disseminate information regarding problems and conditions adverse to quality within functional and programmatic areas.

4.7.1 Assessments

The UPF Project implements various types of assessments to provide rigorous, risk-based, credible self-assessment resulting in feedback used for continuous improvement. Assessments performed include:

- internal independent oversight assessments conducted by CNS QA, BNI QA, BNI Supplier Quality, and CNS Mission Engineering
- internal organizational management assessments/surveillances conducted by UPF managers
- external independent oversight assessments conducted by entities such as DOE, CNS Enterprise, UPO, and Bechtel Corporate.

4.7.2 Event Reporting

The CAS includes incident/event reporting processes for identified issues and reporting, analyzing, and addressing operational events, accidents, and injuries. These issues and events will be reported and investigated promptly and thoroughly. The processes include Cause Identification, Cause Resolution, and Management and Programmatic Weaknesses. Investigation results will be distributed as Lessons Learned when appropriate. In addition to applicable UPF procedures, the UPF Project follows applicable CNS procedures Y14-192, *Occurrence Notification and Reporting*, Y76-001, *Enforcement Coordination Program*, and Y19-115, *Reporting and Handling Security Concerns and Events*.

4.7.3 Worker Feedback

The UPF Project solicits worker feedback and suggestions on all aspects of work execution, including work definition effectiveness, hazard analysis and controls, and implementation for all work activity types. Some of the established site-wide programs and processes available to workers are the Employee Concerns Program, telephone or intranet for reporting concerns or questions, pre-job briefs, worker job hazard walk downs prior to work, post-job reviews, employee suggestion forms, safety meetings, critiques and related investigations, employee participation in teams, committees and working groups, and labor organization input.

4.7.4 Issues Management

The UPF Project manages issues in accordance with Y15-95-816, *UPF Issues Management Process*. The Issues Management Process documents, tracks, and resolves issues identified during management assessments, UPO reviews, independent assessments, reportable or non-reportable events, external assessments, and other reviews, including lower-level assessments, and safeguards and security assessments, as well as issues otherwise self-identified. The responsible UPF managers ensure that corrective actions address each problem’s causes and extent of condition, and are planned, implemented, and verified as effective. Issues are tracked using an issues management database. Closures of issues are communicated to the organizations affected. The UPF Project manages UPF issues through the UPF Management Review Board.

4.7.5 Lessons Learned

The UPF Project develops, implements, and participates in a Lessons Learned program, as described by Y15-95-331, *UPF Lessons Learned Program*. The Project identifies applicable

Lessons Learned from external and internal sources, taking necessary corrective and preventive actions, disseminating Lessons Learned to targeted audiences, and ensuring that Lessons Learned are understood and applied. A database is used to capture potential Lessons Learned; record the results of the screening, assign responsibility for resolution, identify closure actions, and track progress until closure. Periodic reports are issued and metrics published as directed by Project Management.

At the completion of a phase of the Project, a UPF Lessons Learned report will be prepared, distributed, and placed in the Project records. Following the CD-2/3 approvals, the CNS Lessons Learned on up-front planning and design were documented and issued as required by DOE O 413.3B. A final report will be a compilation of the Lessons Learned during the course of the Project, in addition to any Lesson identified in a Project Critique at the Project's conclusion.

4.7.6 Performance Metrics/Indicators

Performance metrics provide continuous feedback on the Project's and processes' health and/or effectiveness. Performance indicators and measures are used to help management identify adverse trends, monitor performance, and promote improvements. Performance metrics are reported in the Quality Dashboard on the UPF website under the Quality function. These metrics are reviewed by the functions or organizations responsible for the data, and are periodically reviewed by Senior Management to determine the quality of product deliverables to the customer. Performance metrics are maintained during the lifecycle of the Project and will be adjusted based on the need for information to be measured.

4.7.7 Performance Trending Analysis

The UPF Project's processes produce many sources of data to be examined for performance indicators (e.g., safety incidents, issues management, PBQ interactions, and management assessments). Trending analysis of this data gives insight into the cultural and performance health of the UPF Project. Where trends are identified, they are treated as appropriate to their significance and potential impact. Trending analysis reports are issued on a periodic basis to the Project's senior management.

4.8 Productivity Improvement

The goal of the UPF Productivity Improvement program is to support Project objectives by identifying performance improvement efforts and associated cost savings, providing training and guidance to all Project Six Sigma practitioners, tracking engagement metrics to ensure that all Six Sigma resources are used in the most effective and efficient way possible, and delivering increased value for NNSA. These benefits are realized through the execution of Process Improvement Projects, and through the application of Six Sigma statistical and Lean tools and techniques to identify and implement work process improvements and optimize work execution approaches. In all instances, savings related to sustainability (e.g., reduced paper waste or eliminating travel) are to be evaluated when documenting the savings.

The UPF Project establishes goals for the identification and execution of savings opportunities. Realistic improvement opportunities resulting from the Six Sigma program are incorporated into the existing UPF processes and procedures to allow for improvements throughout the Project.

5.0 RISK MANAGEMENT

5.1 Risk

The UPF Project uses a disciplined approach to risk identification and management of T&P risks, as well as Project schedule and cost risks. Achieving risk reduction is an integral part of setting priorities, sequencing Project work, and responding to the most serious risks first.

UPF Project T&P risks are managed in accordance with RA-PJ-801768-A001, *Uranium Processing Facility Risk Management Plan*. The Risk Management Plan (RMP) establishes the process for identifying and assessing probabilities and consequences, as well as handling and managing risks that could potentially jeopardize successful completion of UPF. Implementation of the RMP ensures that the UPF Project identifies and incorporates appropriate, efficient, and cost-effective measures to handle Project risks, including both threats and opportunities.

As directed in the RMP, the Project team has instituted an ongoing process for identification and assessment of potential T&P risks. A risk-screening questionnaire has been developed to aid in the identification of risks (RMP, **Appendix A**). Identified risks are maintained in a UPF-developed Risk Register, an automated database for tracking and reporting risks and their handling strategies and action items. The register is a menu-driven tool for managing threats and opportunities, and has the capability for multiple users to access information simultaneously.

In the Risk Register, the evaluator/owner determines an overall risk score by pairing probability with consequence, using the matrix shown in **Figure 1**. One of four handling strategies is then identified for each risk—Accept, Transfer, Mitigate, or Avoid. Mitigate or Avoid require actions to implement handling strategies; each action is assigned to an individual and is tracked to closure. Residual risk is then determined, with the potential schedule and cost impacts estimated to remain after the handling strategies are fully implemented by the actions.

Risks, both threats and opportunities, are formally documented in Risk Analysis Reports (RARs), which provide detailed discussion on how the risk assessments were conducted and the results, including T&P risk that is input to cost and schedule estimates. While the Risk Register is constantly maintained, an RAR is issued as needed, at a minimum at each CD request.

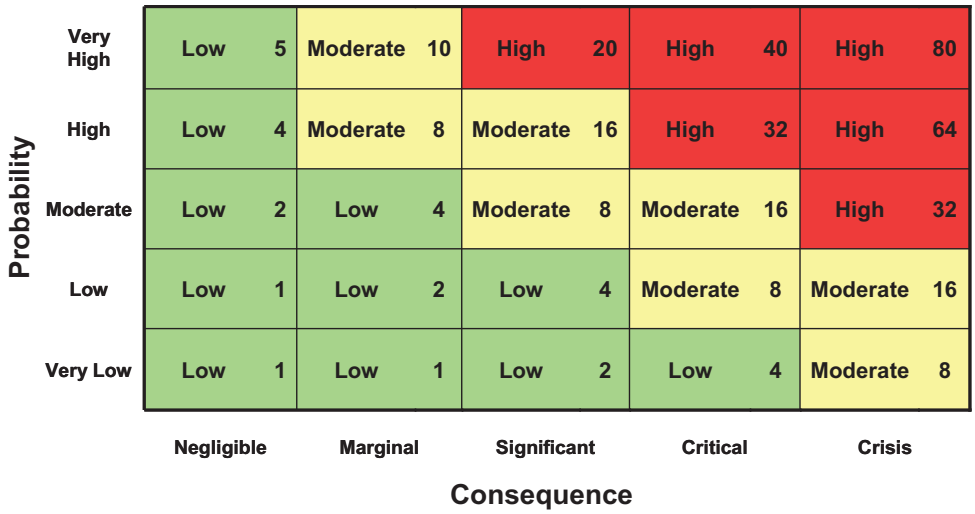


Figure 1. Threat Grading Matrix

5.2 Assumptions

Associated with risk management are documented assumptions. *Assumptions*, as defined by DOE G 413.3-7A, *Risk Management Guide*, are "Factors used for planning purposes that are considered true, real or certain. … Generally, the assumptions will contain an element of risk. … assumptions have a basis in fact, but are not facts themselves …"

At each CD, assumptions are captured that emerge from the UPF Project's strategies and plans for management and execution of the CD scope, as well as programmatic assumptions upon which the Project cost and schedule are based.

6.0 REFERENCES

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APPENDIX A
UPF Project Team Key Member Responsibilities

Responsibilities of key members of the CNS/BNI UPF Project team are outlined in this appendix. Team membership changes to address Project needs during different phases; refer to the organization charts on the UPF Project website for the current management structure and key membership (https://upf.y12.doe.gov/sites/upFWEB/SitePages/OrgCharts.aspx).

CNS Project Director/Deputy Project Director

The UPF Project Director has overall responsibility for all aspects of the UPF Project. He/she integrates execution of the support functions of the Prime Contracts, ES&H, Quality, and Security with the execution of the production functions of the Project. The Deputy Project Director is the primary point-of-contact to the CNS IPT in the areas of Operator's Representative, Design Authority, and Production and Maintenance.

The Project Director's responsibilities include:

- Undertaking overall responsibility for the UPF Project to meet all requirements
- Ensuring that the Project meets DOE, NNSA, corporate, and Project requirements and objectives
- Guiding the Quality Assurance Program's direction and implementation through assigned organizational responsibilities, accountabilities, programs, and procedures as established in the UPF Quality Assurance Program Description
- Integrating roles and responsibilities of the overall Project organization
- Ensuring effective communication of programmatic needs, and ensuring that those needs are successfully integrated into the planning, development, and execution of the UPF Project
- Acting as a primary interface with NNSA and Y-12 peer organizations
- Acting as the point-of-contact for the DNFSB and other external stakeholders for UPF
- Approving UPF budget changes and concurring with BCPs
- Overseeing the Level 3 BCCB
- Approving Performance-Based Incentive and Performance-Based Objective proposals
- Serving as the primary Project interface with Y-12 Senior Management and Corporate Management.

APPENDIX A
UPF Project Team Key Member Responsibilities

CNS Prime Contract Manager

The Prime Contract Manager for UPF is responsible for the interface of Project contracting actions between the Project and the customer contracts officer, procurement and sub-contract department, and the CNS prime contracts organization. Primary responsibilities include:

- Interfacing with the CNS prime contract organization in the identification of the UPF contract baseline, terms and conditions, specifications, estimates, and schedule
- Identifying areas of risk and opportunities and assisting in the development of the risk mitigation plans
- Developing and implementing the contract management program for the Project consistent with the prime contract requirements
- Establishing a contract change control process and procedure
- Coordinating with the other Project team members to identify customer-related actions
- Preparing negotiation positions and strategies for management approval
- Leading negotiation teams and managing negotiations
- Ensuring that subcontracts and other procurement actions contain appropriate flow down of prime contract terms; facilitating organizational interfaces between those performing subcontract formation and administration
- Participating in related meetings with BNI Engineering, Construction, Procurement, and Project Controls to ensure awareness of all Project activities; identifying opportunities for cost/schedule enhancements; taking appropriate actions to improve performance and ensure compliance with prime contract terms and conditions
- Conducting regularly scheduled meetings with the customer contracting officer to ensure a full understanding by all parties of the contracting actions in development; coordinating any actions requested
- Managing the handling of the prime contract closeout activities and participating in the closeout of subcontracts and procurements
- Coordinating the development and delivery of Project training to address contract management principles, subcontract formation and administration, and identification and resolution of claims.

APPENDIX A
UPF Project Team Key Member Responsibilities

CNS Quality Assurance Manager (QAM)

The CNS QAM is responsible for establishing the programmatic quality requirements and measures that are used to ensure that UPF Project requirements are met as defined in Y60-95-102PD, *Quality Assurance Program Description.*

CNS Environment, Safety, and Health (ES&H) Manager

The CNS UPF ES&H Manager ensures that environment, health, and safety issues are addressed throughout the Project, as well as operations, and has the following responsibilities:

- Establishing ES&H requirements that are consistent with the scope of the Project and method of accomplishment in the areas of environmental compliance, industrial safety, industrial hygiene, radiological control, and waste management
- Implementing the Project safety program, including NEPA compliance, Integrated Safety Management, licensing and permitting activities, waste minimization and pollution prevention initiatives, construction and industrial safety oversight, hazard classification determination, safety assessment documentation and safety analysis reports, and integration of ES&H factors into preliminary and final design, installation, commissioning, and operations
- Coordinating participation for integrated hazard evaluation studies and developing non-nuclear lines of evaluation for studies
- Coordinating and interfacing with the any Site-Wide Environmental Impact Statement update for the Y-12 site
- Serving as the ES&H point-of-contact with the customer and Project Director
- Assisting in the implementation of planning and Project execution, including definition of program requirements
- Providing oversight to ascertain that program and Project requirements are being met
- Managing the environmental permitting process
- Establishing waste management requirements for the Project and ensuring waste management plans are prepared
- Providing integration and functional oversight of the Construction Safety Program.

APPENDIX A
UPF Project Team Key Member Responsibilities

CNS Subcontract Administrator (SA)/Technical Representative (STR)

The SA is responsible for overall subcontract administration. The SA assigns duties and responsibilities to the STR and supports the STR in the implementation of those duties as required. The STR is responsible for the day-to-day administration and technical completion of onsite subcontracts. The STR is responsible for managing, monitoring, and ensuring compliance with technical requirements of the subcontract, and will work with engineering, procurement, quality, safety, security, and other subject matter experts, as necessary, to ensure subcontract terms and other requirements are met. The STR has the responsibility and authority to enforce all of the requirements of the subcontract.

The CNS SA/STR has the following specific responsibilities:

- (SA) Developing and implementing the BNI subcontract management program
- (SA) Analyzing the subcontract general terms and conditions to highlight areas of risk such as ambiguities, conflicts, or deviations
- (SA) Developing and managing appropriate mechanisms to monitor compliance with the subcontract terms and conditions
- (SA) Providing the Project Director with reviews and analysis of the subcontract financial data
- (STR) Interacting daily with the BNI subcontractor
- (STR) Establishing the reporting and communication protocols between the BNI Prime Contracts Manager and the STR.

APPENDIX A
UPF Project Team Key Member Responsibilities

CNS Security Interface Manager

The Security Interface Manager leads all efforts to integrate Safeguards and Security requirements, practices, and principles into the design, construction, and startup of the UPF Project. Security Support also provides integration of UPF Project activities with existing and/or planned security operations to ensure that the Y-12 security posture is not negatively impacted. Responsibilities include the following activities:

- Planning, implementing, managing, integrating, and overseeing all safeguards and security actions necessary to achieve Safeguards and Security goals and objectives within the UPF Project
- Coordinating UPF Project activities with Y-12 Safeguards and Security Operations to ensure that the Y-12 Security Posture is not negatively impacted by Project activities
- Developing and implementing Safeguards and Security Requirements for the UPF Project that will result in the Project's design being compliant with applicable DOE/NNSA Orders and Directives and will achieve acceptable risk levels as demonstrated by a vulnerability assessment
- Interfacing with NNSA, site contractors, and other stakeholders to ensure effectiveness of the UPF Security Program
- Approving plans and procedures related to UPF safeguards and security responsibilities
- Providing design input to the UPF Project related to safeguards and security responsibilities.

APPENDIX A
UPF Project Team Key Member Responsibilities

Project Controls Manager

The UPF Project Controls Manager has the following responsibilities:

- Implementing the tools and systems necessary to effectively and actively manage, control, and report on cost and schedule for concurrent Projects tasks
- Collecting performance data (installed quantities, expended labor hours, and other progress measurements for direct-hire and subcontract work)
- Interfacing with the Y-12 Chief Financial Officer to ensure reconciliation of Project costs with Y-12's financial systems and for the preparation and submittal of annual budget documents
- Directing integrated cost engineering, cost estimating, cost analysis/control, and planning/scheduling activities
- Ensuring all integrated Project controls tools and systems are compliant with American National Standards Institute (ANSI) Standard 748-C, *Standard for Earned Value Management Systems (EVMS)*, and DOE O 413.3B
- Providing functional direction including approval of the integrated Project controls tools being used
- Directing the preparation and presentation of Project estimates and cost forecasts
- Supporting Project organizational and administrative activities
- Reviewing contract drafts to ensure they include adequate cost and scope definition and meet Project controls requirements
- Developing BCPs, as needed
- Establishing useful forecasting and predictive tools, procedures, and processes
- Ensuring effective trend management
- Serving as a member of the Level 3 BCCB
- Developing and maintaining an integrated WBS and schedule that encompasses all Project participants
- Serving as the owner of the integrated project controls tools
- Preparing budget and funding documents
- Providing support to the Project Director and CAMs in managing the integrated project cost and schedule
- Preparing and maintaining the integrated project cost estimate and EAC, including coordinating with subcontractors in the generation of the Project integrated EAC
- Coordinating all Project cost and schedule day-to-day efforts supported by the other Project Controls leads
- Integrating trends and risk events into the Project cost and schedule
- Maintaining routine interface with UPO Project Controls personnel.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Project Manager

The BNI UPF Project Manager is responsible for managing the day-to-day EPC, Startup, BNI Quality Assurance, Safety, **Human Resources, Training, Information Services and Technology, Office Administration and Services, Communication, BNI Prime Contracts,** and **Special Projects**. The BNI Project Manager reports to the CNS Project Director. Primary responsibilities include:

- Defining Project execution team roles, responsibilities, and staffing assignments
- Maintaining and approving the Project execution organization chart
- Establishing, maintaining, controlling, and reporting scope, budgeted cost, and schedule performance baselines that are consistent with Project funding
- Establishing cost and schedule contingencies that are commensurate with the Project owner's acceptable risk level for the Project
- Ensuring the SOW meets DOE, NNSA, corporate, and Project requirements and objectives relative to quality
- Ensuring the successful implementation of the BNI Quality Assurance program.
- Implementing the quality roles and responsibilities identified in the UPF QAPD
- Establishing the safety and quality environment for the EPC SOW
- Reviewing and approving execution plans and procedures
- Interacting UPO and CNS management, including through the Change Control Board and the Integrated Project Team
- Meeting applicable federal and state laws and regulations and applicable CNS and UPO standards and requirements
- Implementing Configuration Management, Quality Assurance, Integrated Safeguards and Security Management, and Integrated Safety Management.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Engineering Manager

BNI Engineering for the UPF is executed by an Integrated Design Team made up of engineers and multiple subcontractors with physical and functional interfaces between assigned work scopes. The BNI Manager of Engineering has the following responsibilities:

- Managing the technical resources to control the technical adequacy of the engineering design process; ensuring integration and coordination of the technical basis development
- Ensuring that design processes are developed, implemented, and maintained to ensure that Project requirements and objectives relative to quality, safety, schedule, and budget are met
- Overseeing the integration and preparation of technical documents
- Managing the planned work in accordance with established budgets and schedules
- Developing the technical documents and specifications necessary to support the Project Acquisition Plans
- Ensuring that the appropriate administrative controls are in place to manage outsourced design interfaces
- Managing work performed for the Project in other locations
- Ensuring implementation of systems engineering functions
- Interfacing with Y-12 Mission Engineering for design authorization, safety engineering, and requirements and surveillance activities
- Supporting the Safety-in-Design Integration Team Project engineering in fostering safety-in-design collaboration and integration between the IDT and SDIT support functional organizations
- Maintaining a good working relationship with the DNFSB, in conjunction with NPO, and coordinating frequent technical reviews with the board to facilitate open communications
- Capturing and documenting quantities during the entire design effort and tracking quantity variance through design evolution
- Ensuring the development of resource-loaded schedules for engineering activities with support from Project Controls
- Managing technical change and risk, cost, and schedule assessments
- Managing technical issues to resolution in a timely manner, permitting the Project to advance with fewer open technical issues
- Ensuring that skilled engineering resources (internal or external) are provided to support the schedule
- Monitoring progress and controlling the engineering scope, cost, and schedule
- Ensuring that design reviews by BNI and CNS chief engineers are conducted at critical Project phases

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Engineering Manager (cont.)

- Managing the Project engineers and engineering system to ensure that the Design Control Checklists are completed, and that critical peer review of Design Control Checklist deliverables is taking place in a timely manner
- Developing alternate solutions and options to support Project needs
- Providing technical input for procurement of engineered equipment
- Coordinating constructability reviews
- Ensuring that design requirements and design output documents appropriately and accurately reflect the design basis
- Transitioning the technical baseline responsibility to Y-12 Production at the end of the Project
- Serving as the integrator for Facility Design, Facility Safety, Criticality Safety, and Fire Protection Engineering input and requirements
- Serving as the Engineering point-of-contact with the customer and the BNI Project Manager
- Supporting the DAR in the development of the technical baseline
- Serving as a WBS CAM as assigned by the BNI Project Manager
- Serving as a member of the Level 3 BCCB
- Ensuring that design documents identify critical attributes and inspection requirements to ensure design is captured in as-built facility and systems.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Construction Manager

The BNI UPF Manager of Construction is responsible for overseeing all activities at the construction site, facilitating the cooperation and coordination of all entities in the field, and ensuring the priority of safety throughout the construction phase. Responsibilities include:

- Ensuring that construction activities are conducted in a safe, disciplined manner
- Establishing and managing cost and schedule baselines for construction activities
- Coordinating constructability reviews using diverse construction subject matter experts, including field-engineering reviews during preliminary and final design. This will include participation in three-dimensional (3D) model reviews
- Coordinating with Engineering to establish the issuing sequence of construction packages
- Managing, directing, and accounting for construction forces, assigned subcontractors, and sub-tier subcontractors
- Obtaining a qualified construction work force
- Ensuring that field work and modifications meet design requirements
- Ensuring that construction meets Project quality requirements
- Executing construction activities within the cost, schedule, and scope parameters
- Participating in the resolution of issues relating to constructability reviews and estimates
- Ensuring that construction field testing and inspections are properly performed
- Ensuring that requirements for Project activities, including training, are clearly defined and met
- Using a family of curves depicting the design release, fabrication/delivery, and installation for each key bulk commodity (e.g., rebar, concrete, piping, conduit, and cable) to ensure meeting critical construction and pre-operational testing milestones. The relationship between engineering release, material delivery, and construction installation for each commodity curve is reviewed to ensure that enough time is available for detailing, fabrication, and delivery to the job site to provide sufficient backlog to support construction
- Monitoring productivity of subcontractors and direct-hire construction activities and initiating corrective actions, where necessary
- Providing maintainability input throughout Project modifications
- Implementing the Construction Automation Plan
- Serving as a WBS CAM as assigned by the Project Manager, BNI
- Serving as a member of the Level 3 BCCB
- Serving as a member of the Commissioning team.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Construction Quality Control Manager (CQCM)

The BNI CQCM's responsibilities include:

- Implementing the Project quality control (QC) requirements
- Providing construction quality support with qualified and certified inspectors
- Managing the implementation of the QC system at the jobsite
- Providing technical and administrative direction to QC engineers and administrative staff
- Providing oversight of subcontractors
- Verifying that subcontractors comply with their QA plans and QA/QC requirements, including flowing down applicable requirements to lower-tier subcontractors
- Ensuring review and approval of QC testing and inspection reports to assist readiness evidence formulation
- Performing material receipt inspections
- Participating in factor acceptance testing
- Validating nonconformance reports
- Providing oversight of vendor QA/QC program
- Controlling materials and testing equipment
- Performing field inspections of completed work as required
- Performing as the administrative Level III for the qualification certification of QC inspectors.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI UPF Startup Manager

The BNI UPF Startup Manager directs and coordinates all startup activities during design, through construction, turnover, preoperational testing, and completion of cold operations and readiness activities. Responsibilities include the following:

- Assembling the startup team
- Ensuring that the requirements associated with the Y-12 operational readiness program, in accordance with DOE O 425.1 D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, are met for this Project
- Ensuring startup/commissioning elements of the Project schedule are developed and integrated properly
- Directing and overseeing startup planning and the work scope defined in the startup schedule associated with the Project
- Assisting in the development and execution of the UPF Project Commissioning Plan
- Providing for independent review of the readiness affirmations evidence to provide verification of status and administrative content
- Managing and coordinating the turnover process for UPF Structures, Systems, and Components
- Developing and executing the UPF Project Startup Plan for Preoperational Testing
- Providing coordination for cold operations activities
- Assisting in the development and review of the Facility Startup Plan
- Assisting in the development and review of facility staffing plans and providing feedback to the organizations relative to their abilities to provide the personnel necessary to operate the facility
- Planning remedial actions with Production for those activities and issues that do not support the startup/commissioning schedule
- Ensuring assignment of qualified test engineers for post-construction testing, supporting operator training and initial cold operations as required
- Ensuring that appropriate selection and training of operations personnel are completed before start of initial operations
- Ensuring that programs, plans, instructions, procedures, and criticality safety requirements are developed prior to the ORR, including the UPF Startup Plan(s)
- Serving as a member of the Level 3 BCCB
- Serving as the Commissioning Authority for the Project.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI ES&H Lead

The BNI ES&H Lead's responsibilities include:

- Coordinating with line management for the effective implementation of the BNI UPF ES&H Plan
- Evaluating and authorizing any changes to the ES&H Plan in coordination with the Construction Manager
- Directing and/or participating in necessary ES&H monitoring as stipulated by task requirements for noise, confined space entry, and other identified ES&H hazards
- Ensuring that work is conducted safely and in accordance with the ES&H Plan
- Evaluating personal protective equipment (PPE) requirements and providing technical guidance on procurement of correct types of PPE
- Investigating illnesses, accidents, incidents, and near misses and ensuring case management is conducted
- Developing Project environmental waste management, safety, and health procedures
- Supporting Job Hazards Analysis (JHA) plans that are developed for jobs and tasks
- Monitoring compliance with environmental and safety procedures, plans, and JHAs
- Conducting daily safety and health inspections of the work places
- Exercising Suspension of Work/Stop Work Authority for safety deficiencies and imminent danger violations.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Project Quality Manager (PQM)

The BNI PQM's responsibilities include:

- Developing, communicating, maintaining, and managing the BNI Quality Assurance Plan which flows down and implements the requirements of the UPF QAPD
- Implementing the quality roles and responsibilities identified in the UPF QAPD
- Serving as the primary interface for implementation of the UPF BNI Quality organization scope
- Ensuring that the interfaces between the quality program and the engineering, procurement, and construction processes and procedures are consistent with the Project expectations and requirements
- Providing and facilitating the following UPF Project quality program:
  - Productivity and Six Sigma Improvement program
  - Suspect/Counterfeit Items Program
  - Audit and Assessment of BNI Work Scope
  - Integrated Quality Assurance Program.

APPENDIX A
UPF Project Team Key Member Responsibilities

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BNI Acquisition Services Manager

The BNI UPF Acquisition Services Manager has overall responsibility for UPF Project procurement operations, including the following responsibilities:

- Identifying staffing requirements
- Defining the procurement objectives in support of the Project's goals
- Providing Basic Ordering Agreement (BOA) oversight through closeout
- Managing the procurement SOW to meet the cost, schedule, and quality objectives of the UPF Project
- Overseeing purchasing and subcontracting day-to-day operations
- Performing evaluation and oversight of suppliers
- Managing the Project Supplier Quality Organization
- Coordinating with the Construction Manager for the receipt, handling, and storage of items with the required inspection and testing activities.

BNI Area Managers – Buildings

During the execution of UPF, some elements of scope such as the MEB, MPB, SAB, and PSF subprojects will be executed as subprojects. An Area Manager will be assigned under the direction of the Project Manager. The Area Managers are responsible for the following:

- Defining the SOW to be performed
- Defining Project team roles and responsibilities
- Coordinating with the functional managers to have team members assigned
- Executing and reporting to defined cost and schedule budgets
- Establishing safety and quality objectives
- Performing Control Account Manager functions for the subproject
- Managing the Project daily
- Preparing subproject closeout activities as required.

APPENDIX A
UPF Project Team Key Member Responsibilities

BNI Prime Contract Manager

The BNI Prime Contract Manager is responsible for the interface of contracting actions between the CNS UPF Project and the BNI subcontract. Primary responsibilities include:

- Interfacing with the CNS UPF SAs/STRs in the identification of the BNI subcontract baseline, terms and conditions, specifications, estimates, and schedule
- Identifying areas of risk and opportunities, and assisting in the development of the risk mitigation plans
- Developing and implementing the subcontract management program for the Project, consistent with the subcontract requirements
- Establishing a contract change control process and procedure
- Coordinating with the other Project team members to identify customer-related actions
- Preparing negotiation positions and strategies for management approval. Leading negotiation teams and managing negotiations
- Ensuring that subcontracts and other procurement actions contain appropriate flowdown of subcontract terms and facilitate organizational interfaces between those performing subcontract formation and administration
- Participating in related meetings with BNI Engineering, Construction, Procurement, and Project Controls to ensure awareness of all Project activities
- Identifying opportunities for cost/schedule enhancements; taking appropriate actions to improve performance and ensure compliance with prime contract terms and conditions
- Conducting regularly scheduled meetings with the CNS UPF contract representatives to ensure a full understanding by all parties of the subcontracting actions
- Managing the handling of the subcontract closeout activities and participate in the closeout of subcontracts and procurements
- Coordinating the development and delivery of Project training to address subcontract management principles, subcontract formation, and administration and identification and resolution of claims.

APPENDIX H.

INTERFACE MANAGEMENT PLAN (IMP)

[Note: To be inserted by the Contracting Officer after contract award.]

SECTION J

APPENDIX I

PERSONNEL APPENDIX

[MODS 0018, 0114, 0128, 0147, 0269, 0285, 0300]

SECTION J APPENDIX I

PERSONNEL APPENDIX

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1.0 INTRODUCTION

The Contract DE-NA0001942, Federal Acquisition Regulation (FAR) Part 31, Department of Energy Acquisition Regulation (DEAR) Part 931 and DEAR 970.30 govern the allowability of personnel and other related costs incurred pursuant to the Contract. This Appendix sets forth personnel and other related policies that have cost implications under this Contract and are not covered explicitly in FAR or DEAR cost principles. This Appendix identifies those costs deemed reasonable and allowable for reimbursement when incurred in the performance of Contractor work. The Contractor shall seek Contracting Officer approval prior to incurring costs not specifically identified as allowable in this Contract. The Contractor shall identify and treat all unallowable costs and directly associated unallowable costs in accordance with the criteria set forth in FAR 52.230-2, *Cost Accounting Standards*, including but not limited to placing unallowable costs in appropriate allocation bases.

The personnel policies under Contracts DE-AC54-00AL66620 and DE-AC05-00OR22800 do not transfer to this Contract, with the exception of personnel policies assumed during the Transition Term. The assumed personnel policies, procedures, and other related documents will expire with the various implementation dates contained in this Appendix. If there is a conflict between the Contractor's policies and the terms of this Contract, the Contract will govern. Nothing in this Appendix makes costs allowable or reasonable that would otherwise be unallowable or unreasonable. The effective date for all items contained herein is October 1, 2014 unless otherwise indicated in this Appendix.

The Contractor shall obtain prior Contracting Officer approval of changes within the scope of the Personnel Appendix when such changes are expected to increase costs to the Government. In situations where changes may set a precedent among the Department of Energy/National Nuclear Security Administration (DOE/NNSA) Contractors, the Contractor shall consult with the Contracting Officer regarding program cost reimbursement prior to implementation, even if there is no expected increase in cost. This requirement is not intended to prohibit the Contractor from taking advantage of efficiency gains realized from new and innovative approaches in providing Human Resource services.

The Contractor shall use effective management review procedures and internal controls to assure that the allowable costs set forth herein are not exceeded. In addition, the Contractor shall ensure that, cost items which require prior approval of the NNSA Contractor Officer or designated representative are reviewed and approved prior to incurrence of costs.

Either party may request revisions to this Appendix, and both the parties agree to give consideration in good faith to any such request. When revisions to this Appendix are made, a contract modification shall be executed to effect the changes.

This Appendix is for the exclusive benefit and convenience of the parties hereto. Nothing contained herein shall be construed as granting, vesting, creating, or conferring any right of action or any other right or benefit upon past, present, or future employees of the Contractor, or upon any other third party.

2.0 DEFINITIONS

The following terms as used in this Appendix have the meaning defined herein.

Ad Hoc Employee: Employees that are utilized on a project-type basis and their work hours are determined on a case-by-case basis by their management and the ad hoc employee. Ad Hoc employees are not eligible for company benefits.

Adjustment – an increase to an employee's pay, but not job level, due to increased job scope, market comparability, internal equity, etc.

Basic Pay: Rate of pay per hour, per week, per pay period, per month, or per year exclusive of any premium.

Bargaining Unit Employees (Union Employees): Employees whose wages, hours of work, and working conditions have been negotiated into collective bargaining agreements.

Compensation Increase Plan (CIP): A plan for establishing need and specifying distribution of maximum dollar amounts and/or percentage of base payroll on an annualized basis, to be allocated to employee groups for base pay increases or lump sum payments during a pay year. The amounts approved are for granting merit, promotion, and adjustment increases.

Contractor: Refers to Consolidated Nuclear Security, LLC (CNS) or its successor under DE-NA0001942.

Employee: A person hired by and working for the Contractor.

Exempt Employees: Employees exempt from the provisions of the Fair Labor Standards Act (FLSA).

Immediate Family: Immediate family members include spouse, children, stepchildren, parents, stepparents, parents-in-law, brother, sister, half-brother, half-sister, brother-in-law, sister-in-law, grandparents, grandchildren of the employee of the employee, son-in-law, and daughter-in-law.

Nonexempt Non-bargaining (NENB) Employees: Employees entitled to overtime pay and minimum wage as described in the FLSA.

Overtime Pay: Payment for NENB employees at the rate of time and a half their basic pay for hours worked between 40 and 52 in a work week, and at a rate of double time their basic pay for hours worked in excess of 52 in a work week.

Promotion: The permanent placement of an Employee in a higher rated job classification due to an increase in the character or scope of his/her job assignment.

Straight time pay or straight time: Refers to overtime paid to exempt employees at their hourly Basic Rate.

Termination: Quit, discharge, layoff, retirement, death, and/or removal from the payroll because of disability (as distinguished from disability absence where the Employee is not removed from the payroll).

Variable Pay: A lump-sum, non-base cash payment separate from base salary.

Work Week: The employee's work schedule within a fixed and recurring period of 168 hours over 7 consecutive 24-hour periods.

3.0 COMPENSATION

The Compensation System program costs directly attributable to compensation provided to Contractor Employees will be allowable under this Appendix I. Section 3.0, Compensation, does not apply to Bargaining Unit Employees. Section 4.0 sets forth allowable costs associated with Bargaining Unit Employees.

A. Variable Pay

1. Variable pay is reimbursable as outlined in the Annual Compensation Increase Plan (CIP) and allows the company to maintain a competitive position in the external market to attract, retain, and motivate top talent.

2. Non-base payments determined concurrently with salary increases and certain non-base awards may be granted throughout the year. These awards are funded from the total non-base budget. Costs associated with the following non-base programs are allowable.

   a. Appointments and Advancements

   b. Other non-base bonus programs developed to respond to plant hiring and retention needs (e.g. sign-on bonuses; retention bonuses; Leadership Incentive Awards-bonus program includes supervisors, managers and high level individual contributors; Special Recognition Awards–award to recognize individuals for their contributions and milestones that have substantial impact on organizational programs; Critical Retention Program–award program established to retain critically skilled employees in technical areas such as engineering and information technology).

3. Additional Bonus for Non-Key Personnel

   Non-base lump sum payments as a form of bonus to non-Key Personnel in accordance with the cost reduction clause (DEAR 970.5215-4 – NNSA Deviation dated November 2011) from resulted shared savings earned and negotiated cost reduction proposals will be allowable.

B. Overtime Pay Program (effective July 1, 2018)

The Contractor shall maintain adequate internal controls to ensure that Employee overtime is authorized only if cost effective and necessary to ensure performance of

work under this Contract. The Contractor must submit to the Contracting Officer overtime utilization reports no later than one month after the end of each quarter (end of quarter = March 31, June 30, September 30 and December 31). If the report indicates that overtime comprised 4% or more of the overall payroll, the Contracting Officer may request that the Contractor submits a plan to lower the overall overtime rate as a percentage of payroll for the quarter following the quarter in which overtime exceeded 4% of total payroll. The Contractor shall notify the Contracting Officer when it is likely that overtime usage as a percentage (exempt and nonexempt base pay) of payroll may exceed, or is likely to exceed, 4% of overall payroll. For purposes of further defining language used below, hours worked is intended to describe hours charged where work was performed while time paid is intended to describe all hours paid.

1. Nonexempt Non-Bargaining (NENB)

    a. All hours worked shall be included for computing Overtime Pay. Paid Time Off, Plant Closure, Plant Delay, Jury duty and Holiday time paid will be counted as hours worked in the computation of overtime.

    b. Employee working a regular scheduled ten (10) hour shift and required to work thirteen (13) or more continuous hours will be granted thirty (30) minutes on company time to eat provided they will continue working and thirty (30) minutes for each subsequent four (4) hour period of work.

    c. Employee working a regular scheduled nine (9) hour shift and required to work twelve (12) or more continuous hours will be granted thirty (30) minutes on company time to eat provided they will continue working and thirty (30) minutes for each subsequent four (4) hour period of work.

    d. Employee working a regular scheduled eight (8) hour shift and required to work eleven (11) or more continuous hours will be granted thirty (30) minutes on company time to eat provided they will continue working and thirty (30) minutes for each subsequent four (4) hour period of work.

    e. An Employee called in by the Contractor to work outside his/her regular shift to meet special requirements may be paid at the applicable overtime rate for all hours worked, or four (4) hours straight time pay, whichever is greater.

    f. Call-In Allowance: An Employee who properly reports to work and is sent home because of lack of work shall receive a minimum of four (4) hours pay at his or her regular hourly rate.

    g. Holdover Allowance: A NENB Employee who is held over at their end of their shift will be paid only for the actual time worked and held over.

2. Exempt

   a. The following Exempt Employees are eligible for straight time pay for over 80 hours worked in a bi-weekly period or pay period or 40 hours worked in a Work Week, when overtime work is directed and approved:

      - Supervisors of Bargaining Unit Employees
      - Supervisors within the Fire Department
      - Supervisors within the Utilities Department
      - Supervisors within the Security Force Department
      - Employees within the Emergency Operations Center/Plant Shift Superintendents Office

      All hours worked shall be included for computing Overtime Pay. Paid Time Off, Plant Closure, Plant Delay, Jury duty and Holiday time paid will be counted as hours worked in the computation of overtime for the above exempt employees.

   b. Extended Work Week - Under extenuating circumstances, where Exempt Employees are required to work greater than 50 hours/week or 100 hours in a bi-weekly pay period on a continuing basis for five weeks or greater to meet critical goals and milestones, the Contractor may pay for additional hours above 45 hours per week or 90 hours in a biweekly pay period at the straight time rate for those additional hours. The request requires the approval of both the affected Contractor's Division Manager/Director and the Chief Human Resources Officer.

C. Shift Differential (effective January 1, 2015)

1. Shift Differentials will be applied according to the schedule below:

Shift Differentials

	Pantex				**Y-12**			
	Evening Shifts, and Daytime Weekend Work as Part of a Regular Work Schedule		**Overnight Shifts, Evening Weekend Work as Part of a Regular Work Schedule, and Rotating Shifts**		**Evening Shifts, and Daytime Weekend Work as Part of a Regular Work Schedule**		**Overnight Shifts, Evening Weekend Work as Part of a Regular Work Schedule, and Rotating Shifts**	
	Exempt	**NENB**	**Exempt**	**NENB**	**Exempt**	**NENB**	**Exempt**	**NENB**
2015	10%	5%	10%	5%	6%	5%	8%	5%
2016	9%	5%	10%	6%	7%	5%	9%	6%
2017 and Beyond	8%	5%	10%	7%	8%	5%	10%	7%

2. Employees who work shifts subject to a shift differential and who work overtime during their work week will receive Overtime Pay computed on their basic pay plus Shift Differential, if any, in effect during their regularly scheduled shift.

D. Approval of Individual Compensation Actions

1. Approval of Key Personnel Compensation Actions

   The compensation actions for all Key Personnel shall be submitted for approval upon replacement and at least thirty (30) days in advance of the proposed effective date, when possible. DOE/NNSA shall exert its best efforts to process the approval determination within the thirty (30) day window, subsequent approval may be made retroactive to the effective date proposed by the Contractor.

2. Approval of Individual Compensation Actions in Excess of Salary Range

   The Contractor shall obtain DOE/NNSA approval for any proposed salary amount paid an Employee in excess of the salary range prior to payment.

E. Special Allowances

Special salary allowances may be paid to Employees for certifications and/or qualifications and in specific work environments, and reimbursed in accordance with the Special Allowance Plan approved by the Contracting Officer. The addition, deletion, or modification of any Special Allowance shall be based upon:

- Affordability within the existing budget
- Comparability to the market
- Notification to/Approval of the Contracting Officer prior to implementation

F. Pay in Lieu of Notice

In the event the Contractor allows an Exempt Employee to resign with notice and, as deemed by the Contractor, the services of such Employee cannot be productively utilized during the period of notice or if his/her presence at the work site during the notice period is not desired, the Contractor may pay the Employee at his/her base pay for two (2) weeks in lieu of continuing the Employee's employment for two weeks.

G. Pay to Surviving Spouse or Dependents after the Death of an Active non-bargaining Employee.

In case of the death of an active, non-bargaining Employee, salary payments shall be continued until the end of the month following the month in which death occurs.

H. Part Time Employment

Part-time Employees may be hired at the salary ranges consistent with internal and external market pricing for comparable jobs.

The provisions of this paragraph shall apply to Employees hired as part-time and/or Employees transferring from full-time to part-time status who apply and receive approval for part-time employment status. Part-time status is defined as working between 20 – 39 hours during a work week. All part time Employees will be paid in accordance with hours worked, no matter whether their duties would typically exempt them from FLSA coverage.

1. All part-time Employees are considered nonexempt for overtime purposes consistent with the FLSA.

2. Part-time Employees will be paid straight time for all hours worked up to 40 in a week, no matter how many hours are worked in any one day.

3. Part-time employees are not eligible for paid personal leave.

4. Part-time Employees shall be eligible to participate in the Compensation Increase Program.

5. Part-time Employees are eligible to participate in certain company benefit plans, policies and procedures as described below.

Benefit	20 to 39 hours week;
Jury Duty	Pro-rated
Severance Pay	Pro-rated
Military Leave of Absence	Pro-rated
Bereavement	Pro-rated
PTO	Pro-rated
Holiday Pay	Pro-rated
Group Insurance, Medical, Dental, Vision	Full
Tuition Assistance Program	Full
Savings Plan	Full
Retirement	Full
Rewards & Recognition Program	Full
Short Term Disability	Pro-rated
Long Term Disability	Pro-rated

Pro-rated benefits will be determined annually by calculating a percentage of hours paid versus available hours of work for the previous calendar year. In cases where there is a plant delay and the part-time employee is enroute to/from work, he/she will be paid for that time. If the part-time employee is at work and the plant is subsequently closed, he/she will be paid for the remainder of the scheduled shift. If advance notice is provided, plant closure time will not be paid.

I. Ad Hoc Employees

Ad Hoc Employees may be hired at the salary ranges consistent with internal and external market pricing for comparable jobs. Ad Hoc Employees are utilized on a project-type basis and their work hours are determined on a case-by-case basis by their management. Ad Hoc Employees are not eligible to participate in any Contractor benefits plans.

4.0 LABOR RELATIONS – COLLECTIVE BARGAINING AGREEMENTS

Costs of wages and fringe benefits to Employees represented by collective bargaining units and all other costs and expenses incurred pursuant to the provisions of collective bargaining agreements and revisions thereto are allowable costs provided the Contractor adheres to requirements provided in Section J Appendix A, *Statement of Work*, Chapter III Section 5.0, Labor Relations.

The terms and conditions set forth in the following collective bargaining agreements between the Contractor and recognized bargaining agents for its Employees assigned to work under this Contract constitute the allowable costs for Bargaining Unit Employees' compensation and benefits for reimbursement by DOE/NNSA. The following collective bargaining agreements are incorporated by reference:

1. The Atomic Trades and Labor Council AFL-CIO and its affiliated unions.
2. International Guards Union of America Local #3 (IGUA - Security Police Officers).
3. International Guards Union of America Local #3 (IGUA – Central Alarm Station and Beta-9 Operators, Central Training Facility Instructors).
4. Knoxville Building and Construction Trades Council.
5. The Metal Trades Council of Amarillo Texas and Vicinity, AFL-CIO.
6. The Pantex Guards Union.
7. United Steel Workers (USW), Local #9-288.
8. West Texas Building Trades.
9. Teamsters Local 519.

Expenses associated with employee representation activities that are not prohibited by Section 302 of the Labor Management Relations Act, 29 U.S.C. § 186, or any other applicable law, are allowable costs.

5.0 BENEFITS

A. Group Insurance and Legally Required Payments

1. Costs incurred in implementing, administering, auditing, and funding comprehensive DOE/NNSA approved group insurance plans are allowable. Administrative costs associated with the effective administration of the plans include such items as publicizing, enrolling, maintaining records, and providing Employees with assistance in understanding and collecting their benefits.

2. Annual renewal of the group insurance policies, certificates and accounts, cost-sharing arrangements, renewal of Group Services Agreements establishing new premium rates and the implementation of changes of minor significance does not require Contracting Officer approval.

3. The employee benefit plans, any third party vendor costs, and other related costs listed below are approved by DOE/NNSA for application to Employees working on this Contract. In addition, eligible retirees of the Contractor are entitled to limited coverage of these benefits.

4. The combined health and welfare plans for the non-bargaining active Employees and retirees may include the following:

Company Sponsored Plans	Contractor Cost
Group Life Insurance	Employer provides one times salary at 100% cost. For Y-12 non-bargaining employees hired prior to January 1, 2012 who were participants in the plan on December 31, 2014, employee purchases one times salary and employer provides one times. Cost is shared equally.
Group Life Insurance Accidental Death and Dismemberment	Employer provides one times salary at 100% cost.
Medical (including prescription drug coverage)	Employer pays applicable percentage of the full cost of the core medical plan as approved by Contracting Officer. Employer provides an additional annual contribution for employees who enroll in the high-deductible medical plan. Employees electing single coverage receive $250 and those enrolling dependents receive $500 each year. A one-time early adopter credit was provided to non-bargaining employees who elected the high-deductible medical plan in 2015. Employees who elected single coverage received $1,000 and those enrolling dependents received $1,500. The early adopter credit was in addition to the annual contribution amount. [redacted]

	[redacted]
Vision Plan	[redacted]

Health Reimbursement Account (for post-65 retirees at Y-12)	Employer provides annual contribution to retirees who elect medical coverage under the Retiree Healthcare Exchange. Currently, the annual employer contribution is $1,800 per participant.
Dental Plan	[redacted]
Business and Foreign Travel Insurance	100% paid by employer.
Short-Term Disability	Employer provides income replacement at 100% for the first six weeks of an approved disability; 80% for the second six weeks (weeks 7 – 12) of an approved disability; and 70% for the next fourteen weeks (weeks 13 – 26) or an approved disability up to a maximum of 26 weeks.
Long-Term Disability	Employer provides a benefit equal to 30% of base pay, up to a monthly maximum of $5,000. Employee may purchase an additional 30% benefit to provide total coverage of 60% of pay, up to an $8,000 monthly maximum.
Employee Voluntary Plans: Voluntary Employee plans such as Special Accident Insurance Plan, Health and dependent Care Spending Accounts, Spouse/Child Life Insurance, and supplemental Life Insurance, etc. may be offered with the employer paying administrative cost only.	

B. Displaced Workers Medical Benefits Program (DWMBP)

The Contractor may provide Displaced Workers Medical Benefits to displaced workers if provision of such benefit is set forth in a DOE/NNSA approved workforce restructuring plan (see Section J, Appendix A, 6.2).

Benefits under the DWMBP are available to displaced workers who are not eligible for health insurance coverage under another plan, e.g., another employer's health plan, the Contractor's retiree medical plan, a spouse's medical plan or Medicare. The DWMBP benefits are as follows:

1. For the first 12-month period after the Termination date, the Contractor shall continue to pay the employer portion of the medical premium and the separated Employee will pay a premium equal to the monthly premium paid by active Employees for the type and level of coverage the separated Employee has at the Termination Date.

2. Beginning in the second year after the Termination date (months 13 - 24), the separated Employee will be responsible for one-half of the full Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) rate for this coverage and the Contractor shall pay the remainder.

3. Beginning in the third year and final year of the DWMBP (months 25 – 36), the separated Employee will be responsible for paying the full COBRA. At the end of the third year the Employee's coverage eligibility ends.

C. Retirement Plans

The Contractor shall administer the following plans:

Qualified – Pantex

- Retirement Plan for Metal Trades Council Bargaining Unit Employees of Consolidated Nuclear Security, LLC at Pantex, Texas
- Retirement Plan for Pantex Guards Union Bargaining Unit Employees of Consolidated Nuclear Security, LLC at Pantex, Texas
- Retirement Plan for Non-Bargaining Unit Employees of Consolidated Nuclear Security, LLC at Pantex, Texas
- Consolidated Nuclear Security, LLC 401k Plan for Bargaining Unit Employees at Pantex, Texas
- Consolidated Nuclear Security, LLC 401k Plan for Non-bargaining Unit Employees at Pantex, Texas

Qualified – Y-12

- Retirement Program Plan for Employees of Consolidated Nuclear Security, LLC at the U.S. Department of Energy Facilities at Oak Ridge, Tennessee
- Savings Plan for Employees of Consolidated Nuclear Security, LLC at the U.S. Department of Energy Facilities at Oak Ridge, Tennessee.

Non-Qualified – Y-12

- Consolidated Nuclear Security, LLC Supplemental Retirement Income Plan

1. General Provisions

Reasonable costs involved in implementing, administering, and funding DOE/NNSA approved pension plans are allowable. Reasonable administrative costs associated with the effective administration of the plans include such items as publicizing, enrolling, maintaining records, and providing Employees with assistance in understanding and collecting their benefits. In addition, only compensation reimbursed by DOE/NNSA under the Contract is authorized to be considered as pensionable earnings for purposes of the qualified and non-qualified plans.

a. Qualified Defined Contribution Plan

Contractor funds contributed on behalf of participating Employees, who cancel their participation in the plan or whose employment is terminated, which are not vested pursuant to the provisions of the plan, shall be used to offset the Contractor's contributions obligated to be made on behalf of other participants in the plan or to offset reasonable plan expenses if permitted by the plan. In the event this Contract with the Contractor is terminated, funds not committed to participants pursuant to provisions of the plans in effect at Y-12 and Pantex shall be returned to DOE/NNSA.

b. Nonqualified Plans

The Contractor will be reimbursed for costs for the Supplemental Retirement Income Plan only in accordance with the allowable salary cost parameters established by DOE/NNSA and agreed to by Consolidated Nuclear Security, LLC, in conjunction with applicable regulatory provisions. No later than 60 days before the end of the fiscal year, the Contractor shall report the following data to the Contracting Officer: number of individuals receiving benefits under the nonqualified plan, benefits amount paid to include supporting data to determine the benefit paid; and, any other data as requested by the Contracting Officer.

D. Severance Pay

Severance pay provisions will apply to non-bargaining employees who are involuntarily terminated in a reduction in force.

1. Pay Schedule

Non-bargaining employees laid off due to a reduction in force:

Company Service	**Severance pay at basic pay**
1 full year or greater	Severance equal to 1 week's pay for each full year of Company Service up to 26 weeks
Total Maximum Benefits	26 weeks' pay

2. Disqualification for Severance Benefits

Contractor will not be reimbursed for costs associated with severance provided to the following categories of employees:

- any individual who is employed in a temporary position, as determined by the Contractor;
- any individual who is categorized by the Contractor as a bargaining unit employee;
- any individual who has less than one year of Company Service;

- any individual who occupies one of the Key Positions identified in Section J, Appendix J;
- any individual who is paid as an independent contractor or who is a leased employee; even if it is determined that the individual is a common law employee, the individual will not be eligible to participate unless the individual is paid through the employer's regular payroll and has wages reported by the Contractor on IRS Form W-2;
- any individual who terminates employment due to death;
- any individual who leaves the employment of the Contractor voluntarily, or who initiates the termination of employment, unless the individual voluntarily terminates employment pursuant to an approved voluntary separation program;
- any individual who is terminated for cause which includes, but is not limited to, poor performance, misconduct, or a violation of the Contractor's rules or policies, all as determined by the Contractor;
- any individual who has an outstanding debt owed to the Contractor, unless the individual agrees in writing that the Contractor may withhold the total amount of the outstanding debt from the severance payment;
- any individual whose employment is terminated due to a temporary suspension of work;
- any individual who is employed by or receives an offer of employment with a contractor awarded a contract by the U.S. Department of Energy or the National Nuclear Security Administration for the management and operation of the Y-12 National Security Complex or the Pantex Plant, or any portion thereof;
- any individual who has signed a waiver of benefits, whether or not the waiver was executed before or in connection with his or her termination of employment;
- any individual who declined to sign a waiver claims as required by the Contractor as a condition to receipt of severance pay and
- any individual who is employed by or receives an offer of employment 1) with the Contractor 2) with one of the members of the LLC that comprises the Contractor at another facility, 3) or with a subsidiary, affiliate or parent company of any Contractor member.

Contractor employees who are involuntarily separated and receive severance pay and then become rehired by 1) the Contractor, 2) one of the members of the LLC that comprises the Contractor at another facility or 3) a subsidiary, affiliate or parent company of any Contractor member, will be required to repay a pro rata portion of severance if the individual becomes reemployed before the expiration of the number of weeks corresponding to the severance pay received. For example, if a Contractor employee receives 16 weeks of severance pay, but becomes reemployed 8 weeks after termination, CNS will seek to recoup from the individual ½ of the severance pay provided to him/her.

In the situations described in the preceding paragraph, the Contractor is responsible for remitting to DOE/NNSA the amount associated with severance it is required to attempt to recover from the individual, even if the Contractor is not fully successful in its efforts to recoup the severance pay from the individual. This requirement may be waived by the Contracting Officer.

3. Voluntary Separation Plans:

   Section J, Appendix A, Section 6.2.1 permits the use of a Voluntary Separation Program (VSP) to minimize the number of involuntary separations and mitigate the impact on affected employees. Section 6.2.1 also states the Contractor shall submit the VSP for approval by the Contracting Officer prior to implementation regardless of the number of employees involved. Any VSP document submitted to the Contracting Officer for approval must include the requirement that VSP participants will be required to repay a portion of severance pay in the event the VSP participant becomes reemployed by the Contractor or a DOE/NNSA contractor at another facility within one year of terminating employment with the Contractor.

6.0 PAID AND UNPAID TIME OFF

A. Paid Time Off (PTO) (effective January 1, 2015) and amended in (1) & (4) below.)

1. Employees will accrue PTO hours every pay period based on years of service up to a maximum accrual of 200 hours annually. PTO hours can be used for vacation, sick leave and personal time off from work. Employees can bank up to 240 hours in their PTO accounts in addition to their annual accrual amounts. Effective September 28, 2022, employees are authorized to increase the PTO carryover balance to 300 hours for a period of two years with the balance of 240 hours of carryover to be effective January 1, 2025.

2. Employees will begin accruing their next level of additional PTO on the first day of the pay period in which their company anniversary falls. Company service includes continuous time worked for predecessor DOE/NNSA management and operating contractors at Pantex and Y-12.

3. Beginning with the first pay period of January 2015, PTO hours will be accrued based on the following:

Years of Service	Annual PTO Accrual
Less than 5 Years	120 hours
5-10 Years	160 hours
More than 10 Years	200 hours

4. Beginning January 1, 2015 and each January thereafter, all banked PTO hours in excess of 240 at the end of the calendar year will be paid out as soon as

administratively possible. Effective May 5, 2021, this payout of excess PTO for non-bargaining employees is eliminated.

5. An Employee shall be paid for unused PTO at the time of termination.

6. PTO donation policies and programs will continue at both sites.

7. The Contractor may, grant a newly-hired Employee service credit for purposes of PTO accrual when it is deemed necessary in order to attract and hire requisite highly-skilled staff. A maximum of 40 additional hours of annual PTO accrual may be granted, and these cases must be reported to the Contracting Officer on a quarterly basis or as requested.

B. Paid Personal Leave (effective January 1, 2016)

Effective January 1, 2016, non-bargaining employees will receive 40 hours of paid personal leave annually. Employees may use personal leave if they are unable to attend work due to one or more of the following reasons:

- Employee's personal illness or injury
- Medical or dental appointments that cannot be scheduled outside the regular shift
- Serious illnesses within the immediate family which require the employee's presence. (effective October 1, 2017)

Employees must use all paid personal leave within a given calendar year. Any remaining hours will be forfeited at the end of the calendar year and will not be paid out to the employee under any circumstances.

C. Sick Leave Bank (effective January 1, 2015)

If applicable, any hours remaining in the sick leave bank of a non-bargaining Employee as of 12/31/14 will be "frozen" and available for use in the event of the employee's own serious health condition where coverage under the Contractor's short term disability would be available.

D. Parent Company Transfer of Service Credit (effective July, 1, 2014)

1. Recognition for service with a Parent Organization, as that term is defined in NNSA SD 350.1, of the performing entity will transfer to the Contractor for purposes of PTO accrual amount, 401k vesting and eligibility, and short term disability.

Benefit Available	Recognition for Service with Parent Organization NOT UNDER DOE or NNSA M&O or Site Management Control	Recognition for Service with Parent Organization UNDER DOE or NNSA M&O or Site Management Control
Eligibility for and accrual rate for PTO	Yes	Yes
Eligibility for vesting and receipt of benefit for defined contribution Plans	Yes	Yes
Eligibility for short term disability	Yes	Yes

2. Individuals that are deemed eligible for parent service credit recognition will not receive DOE/NNSA reimbursed sign-on bonuses.

3. Recognized service with a Parent Organization cannot be used for eligibility for post-retirement health benefits or for any other purpose other than those in the chart under Section 6.0(D)(1).

4. The Contractor shall report bi-annually, on October 1 and March 1, to the Contracting Officer, the names of individuals receiving service credit recognition and the amount of service recognized. The Contractor shall keep records showing that the company service credit was verified.

E. Holidays (effective January 1, 2015)

Each full-time non-bargaining Employee may, when the work schedule permits, be granted 90 hours or 10 days of paid holiday time annually. The Holiday schedule in effect June 30, 2014 will remain in effect through December 31, 2014.

Beginning January 1, 2015, observed holidays include seven named holidays and three floating holidays but shall not exceed 90 hours or10 days of holiday pay per Employee.

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day after Thanksgiving (companion to Thanksgiving Day—standard day off for Employees on 4 10-hour day schedule)
- Christmas Day

1. The three floating holidays can be used on days of Employee's choice during the year with prior management approval.

2. Floating holidays must be used by the end of the year given that they do not carry over to the following year.

3. A non-exempt employee required to work on a designated holiday will receive applicable holiday premiums.

F. Jury and Witness Duty (effective January 1, 2015)

Employees who have been called to serve or who ultimately serve on a jury impaneled by a civil authority, or who have been called to testify as witnesses in legal proceedings to which the Employee is not a party under subpoena, will be granted time off with pay. Time off with pay will not exceed the number of hours in their scheduled workday.

G. Bereavement Leave (effective January 1, 2015)

In the event of the death of a member of the Employee's Immediate Family, an active Employee may be granted up to 3 days paid leave based on current regular work schedule. Bereavement leave may be granted where the deceased relative is not a member of the Immediate Family as defined above subject to approval of the Contractor's Chief Human Resources Officer.

H. Voting Time (effective January 1, 2015)

Employees may be excused from work without loss of pay for the minimum time needed, not to exceed (2) hours to vote in a national, state, county or municipal election consistent with state laws.

I. Plant Shut Down

The Contractor's CEO or COO, in conjunction with the NPO Manager, has the responsibility to decide whether a natural or civil emergency condition exists to the extent it prevents Employees from reporting to work, or requires that they leave the work location during scheduled work hours. When normal attendance requirements are waived or modified due to emergency situations, Exempt Employees will receive their normal salary and will not be docked PTO due to the closure. Nonexempt Employees will be paid at their base pay rate not to exceed the number of hours they were scheduled to work during the day(s) of the facility closure.

J. Leaves of Absence

An Employee may be granted a leave of absence without pay, for a period of up to twelve months with an option of extending the leave of absence by the Contractor provided the absence will not interfere with the Contractor's operations or create any conflict of interest. Continuation of benefits and service credit during the leave of absence shall be administered according to the Contractor's policy.

K. Military Leave of Absence

1. Training/Active Duty Training/Inactive Duty Training

   a. Employees, who are members of the National Guard or Reserve Component of any military branch, shall be granted a leave of absence of up to three weeks [fifteen (15) workdays] per calendar year for training, active duty training, or inactive duty training.

   b. During this absence, non-bargaining Employees shall be paid the difference between their basic pay for the number of hours in their regular work schedule at the time of training and the base Guard or Reserve Component pay received for workdays absent (excluding allowances and travel pay).

2. Active Duty/Deployment/Individual Augmentee

   a. Employees, who are members of the National Guard or Reserve component of any military branch, shall be granted a paid leave of absence of up to two (2) months for active duty, deployment or individual augmentee assignments.

   b. During this absence, non-bargaining Employees shall be paid the difference between their basic pay for the number of hours in their regular work schedule at the time of deployment and their base Guard or Reserve Component pay received for workdays absent (excluding allowances and travel pay).

L. Decision Making Leave

Time off with pay under the company disciplinary policy is allowable. Certain instances of this leave will be without pay in accordance with the company disciplinary policy.

7.0 TRAINING AND EDUCATION

A. General

1. The training and education shall be directly related to the Employee's current position or to another position to which the Employee may reasonably be moved.

2. The Contractor shall establish written procedures outlining a system of approval for all requests for training and education. Such system shall provide an approval structure for in-house and outside training programs and educational assistance. Local colleges and universities will be utilized as primary sources.

B. Training

1. Internal Training Programs – Internal training programs may include but are not limited to orientation, job training, supervisory training, and executive development. Such training programs may be conducted during Employee's workday or after hours. Employees are not paid for afterhours attendance except

for NENB Employees who are required to attend and will be paid overtime, if applicable. Reasonable costs of in-house training including necessary equipment, materials, and instructor personnel are allowable.

2. External Training Programs – Employees may be selected by the Contractor to participate in job related training courses, technical meetings, professional society meetings, seminars, conferences, and other specialized training courses away from the site(s) facilities. Allowable costs for such training courses may include Employee's regular pay, travel and subsistence expenses, and the cost of tuition, fees, and course materials. Business travel and conference management shall be managed in accordance with the DOE/NNSA conference management requirements.

C. Tuition Assistance Program

1. Employees (and students who have accepted a permanent job offer and signed an employment commitment letter under the Contractor's pre-hire program and with the Contractor's Chief Human Resources Officer approval) may be reimbursed one hundred percent (100%) of books, tuition costs including lab and other such fees, and other costs related to their approved coursework. If an Employee is receiving educational assistance specifically for tuition, fees and books from Federal or State assistance; scholarships; grants; or college discounts, such assistance will be deducted in determining Employee's benefits under the Tuition Assistance Program. Reimbursement of costs shall be subject to the following conditions:

   a. Courses are taken outside of paid working hours.

   b. Courses are related to the Employee's current position or to another position within the Contractor's organization to which the Employee may reasonably be moved or related to a degree program with a direct relationship to the Employee's career path with the Contractor.

   c. An Employee is eligible to enter the Tuition Assistance Program on the first day of employment with the Contractor.

   d. A student pursuing a degree in a critical skill area may be eligible to enter the Tuition Assistance Program upon acceptance of a permanent job offer and signed employment commitment stating his/her commitment to remain employed by the Contractor for the following specific periods of time.

Degree	Service Length
Certificate, Continuing Education, and Student Pre-Hire	Employee must fulfill an employment commitment of two (2) times the length of the educational period (Example: Certification class lasts three (3) months, employee owes six (6) months employment from the final reimbursement date)
Courses toward Undergraduate Degree	Employee must fulfill an employment commitment of 12 months after final reimbursement date

Courses toward Graduate Degree	Employee must fulfill an employment commitment of 24 months after final reimbursement date

In the event such Employee does not fulfill the conditions of his/her commitment, the Contractor shall use its best efforts in a cost efficient manner to recover from the Employee the cost of tuition assistance received. In the event the Contractor is unable to fulfill the employment commitment to the student for reasons outside its control, including budgetary deficits, the Contractor agrees to reimburse the student for the tuition assistance that would have otherwise been paid under the Tuition Assistance Program.

e. Courses may only be taken at or through an accredited institution of higher learning.

f. Reimbursement of funds shall be provided for tuition, lab fees, other such fees directly related to enrollment in a course, the cost of required textbooks and similar necessary expenses, but does not include transportation, meals, and like ancillary expenses.

g. The allowance provided for herein shall be paid to an Employee after completion of each semester session or term, provided that the Employee shall have submitted evidence authenticated by the educational institution certifying that a grade of "C" or its equivalent or better was received by such Employee in each course for which reimbursement is sought.

   i. If an Employee withdraws from a course because of a Contractor directed job or shift transfer, because of involuntary entry into military service, or for some other reason beyond his/her control, the Employee may be reimbursed for that portion of tuition not refunded by the educational institution.

h. Tuition Assistance is not allowable if any one of the following conditions occur:

   i. Employee terminates employment prior to completion of the course, either voluntarily or for cause. However, if termination results from a reduction in force, educational assistance costs will be allowable.

   ii. Employee withdraws from the course for personal reasons.

   iii. Employee fails to submit evidence that a course was satisfactorily completed

i. Upon completion of Contractor reimbursed education, including tuition, fees, textbooks, subsistence, salary and other related expenses, the Contractor must require Employees to complete a service requirement as follows:

Degree	Service Length
Certificate, Continuing Education, and Student Pre-Hire	Employee must fulfill an employment commitment of two (2) times the length of the educational period (Example: Certification class lasts three (3) months, employee owes six (6) months employment from the final reimbursement date)
Courses toward Undergraduate Degree	Employee must fulfill an employment commitment of 12 months after final reimbursement date
Courses toward Graduate Degree	Employee must fulfill an employment commitment of 24 months after final reimbursement date

j. The Contractor shall make reasonable efforts to recoup education and related expenses when an Employee fails to fulfill the service requirements. Reasonable efforts may include sending a demand letter to the individual or pursuing appropriate legal action.

D. Paid Education Leave/Sabbatical Leave

Leave may be granted to an Employee who is obtaining an advanced degree that will further the DOE/NNSA mission. Leave may be approved for a cumulative duration not to exceed 24 months. No more than 4 Employees can be on paid educational leave/sabbatical leave at any one time. The Contractor must require the Employee departing on paid leave to sign a document agreeing to repay salary and benefit costs received during leave if the Employee does not come back to work for the Contractor upon expiration of the period of paid leave. If the Employee leaves company prior to 3 years after returning to active work, the Employee will pay back a prorated portion of the salary continuation and benefit costs based on the time the Employee has been back as an active Employee. No educational assistance, travel or relocation expenses will be paid to these Employees.

8.0 EMPLOYEE PROGRAMS

A. Employee Recognition and Memberships

1. The costs of employee recognition programs and organizational and individual memberships are allowable based on a budget formula not to exceed ¼ of 1% of base payroll on September 30 of the prior fiscal year, provided the costs are otherwise allowable under the FAR, DEAR, and the terms of the Contract. Program costs include the following types of activites:

a. Company service awards for achieving milestones consistent with the corporate service awards program.

b. Safety awards and recognition to promote health and safety.

c. Awards, recognition, and celebrations for participating in management initiatives, special achievements, retirement, and similar activities to the extent they are reasonable and consistent with industry practice.

d. The costs of organization and employee memberships in trade, business, and technical organizations necessary for effective performance of work under the Contract provided they are reasonable and do not constitute payment for, or in support of, partisan and political (lobbying) activity.

e. Two thousand five hundred dollars ($2,500) for each inventor (or each co-inventor) for each invention filed in the U.S. Patent and Trademark Office which benefits the objectives of the Contractor and DOE/NNSA.

f. An employee morale and recreation program is authorized, at a level of no more than $50 per employee.

2. Additionally, the Contractor may establish and maintain programs to promote a strong safety culture through increased focus on safety and health awareness, acknowledgement of safety milestone achievements, and Employee/team safety performance recognition and awards. Examples of existing programs are the Voluntary Protection Program (VPP) at Y-12 and the Safety & Health Awareness and Recognition Program at Pantex. The cost of the program will be allowable not to exceed $200,000 per fiscal year, provided the costs are reasonable and in accordance with the cost principles.

B. Work Apparel

Expenses for safety/protection on the job; laundry or similar service is allowable for Employees who are required or allowed to wear such special clothing, shoes, and/or protective equipment.

9.0 TRAVEL, RELOCATION, AND SUBSISTENCE (EFFECTIVE JULY 1, 2014)

A. The Contractor may pay transportation, lodging, meals, and incidental expenses for Employees required to travel in conjunction with the performance of work under this Contract. Travel costs shall be allowable to the extent they are incurred in accordance with the Federal Acquisition Regulation (FAR), Department of Energy Acquisition Regulation (DEAR), Federal Travel Regulation (FTR), and the IRS auto allowance and do not exceed the maximum per diem rates in effect at the time of travel set forth in the FTR, prescribed by the General Services Administration.

B. The Contractor may deviate from this Appendix in specific instances where it is determined and approved by the Contracting Officer to be economically advantageous to DOE/NNSA and to the extent such deviations conform to regulations and law.

C. Relocation expenses, Short Term Assignments (30 days up to one year) and Long Term Assignments (1 year up to 3 years) are applicable to Exempt Employees and shall be incurred in accordance with the provisions, limitations and exclusions of FAR, DEAR and FTR. In consideration of special business requirements, the Contractor's Chief Human Resources Officer, may authorize the temporary assignment or relocation of nonexempt Employees. Under these circumstances, the same provisions apply for nonexempt Employees.

D. The Contractor may use the provisions set forth in NAP 540.2, NNSA Off-Site Extended Duty Assignments, on long-term assignments for new hires/transfers at each site in lieu of a relocation package. Allowances provided shall not exceed the cost of a relocation package unless an exception is requested in accordance with NAP 540.2. The documentation provided shall be consistent with contractor domestic extended personnel assignments described in NAP 540.2

10.0 RECRUITING

A. The costs of recruitment of personnel including cooperative education programs, summer internship programs, nominal costs for promotional items/gifts for recruitment purposes, employment advertising, services of staffing sourcing vendors, services of employment agencies at rates not in excess of standard commercial rates, participation in corporate recruiting activities, campus recruiting, career fairs, and operation of recruiting stations are allowable.

B. Applicants who are requested by the Contractor to report for a pre-employment interview shall be allowed transportation expenses. Reasonable actual costs of lodging not to exceed per diem and meals and incidental expenses (M&IE) shall be allowed.

C. Reasonable actual costs of housing for personnel in summer internship and/or co-op programs will be allowed up to $70 per week per intern in accordance with the Contractors Student Programs Policy. Two meals shall also be provided through the internship program (1) welcome and introduction to mentors meal and (2) end of assignment appreciation with mentor's meal. Both meals are catered on site and the costs will be reasonable in nature.

11.0 SPECIAL EMPLOYEE ACTIVITIES

A. Educational and Community Outreach

The Contractor may authorize Employees to participate in educational and community outreach. The salaries, wages, and fringe benefits of Employees while engaged in such approved activities will be treated as allowable costs. Educational and community outreach does not include activities conducted by elected and officially appointed officials that take place during an Employee's regularly scheduled work day. Hours associated with educational and community outreach outside of the Employee's normal work schedule shall not be compensated by the

Contractor. The total amount of time associated with educational and community outreach activities shall not exceed 3,000 hours per year in the aggregate for both Pantex and Y-12. The Contractor shall submit a report annually, no later than November 1, to the Contracting Officer on the types of usage and number of hours authorized. Some examples of permissible educational and community outreach include, but are not limited to:

- Promotion of Science, Technology, Engineering, and Mathematics in the educational setting (elementary school through higher education institutions)
- Tutoring in local community schools sanctioned by the Contractor
- Science Bowl and Science Fairs

B. Personnel Support Activities and Employee Publications

1. Cost of activities incidental to promotion of morale, welfare, health and safety such as employee publications, health and first aid clinics, and net cost of in-plant food services, Employees' time to promote Employee participation in blood drives, United Way Campaigns, and other activities sanctioned by the Contractor.

2. The Contractor may furnish certain services for an employee-sponsored credit union. The Contractor is authorized to provide office space, utilities, janitorial services, office furniture and equipment, if reasonably available. Employees, as officers and committee members of the employee-sponsored credit union, may be allowed a reasonable amount of on-the-job time to conduct credit union business.

C. Personnel Temporarily Assigned to Contractor Work

1. The cost associated with the Corporation's employees not employed under the Contract, borrowed for incidental work under this Contract, is reimbursable subject to the terms and conditions of the Contract. Reimbursement for the time such employees work under this Contract will be allowable in accordance with the employee's regular work location's government-approved operating disclosed costing practices. Time worked under this Contract for such borrowed employees will include the time spent by the employee's in route to and returning from the worksite on the first and last day of such work. Travel costs of such borrowed personnel will be allowed in accordance with Section 9.0 of this Appendix. Upon request of the Contracting Officer, a report of corporate assignments to the Contractor's work sites will be provided.

2. Personnel Temporarily Assigned From Contractor Work

   The Contractor may loan, at no cost to the current contractor, individuals working under this Contract to other Corporation operations, as long as it does not interfere with performance of Contract work. Each loan arrangement will be reviewed to assure no conflict of interest and will be approved by the Contractor's cognizant Contracts Director or his/her designee. A cumulative report showing all employees loaned, along with the total days loaned, and services provided, will be submitted to NNSA annually no later than November 1.

APPENDIX J.

KEY PERSONNEL

[MODs 0015, 0045, 0084, 0091, 0128, 0157, 0175, 0191, 0199, 0211, 0215, 0221, 0285, 0303, 0348]

CLIN 0001

[redacted]

President / Chief Executive Officer

Y-12 Site Manager

Business Management and Transformation Manager

Site Separation Manager

Chief Information Officer

CLIN 0002

[redacted]

Project Director

FORMER KEY PERSONNEL

The following are former key personnel remaining under a commitment period through September 30, 2025, as a condition of the Contracting Officer's approval, dated March 6, 2025, of CNS' request to restructure its organization:

[redacted]

Support Manager

Chief Financial Officer

APPENDIX K.

SMALL BUSINESS SUBCONTRACTING PLAN

[Incorporate approval letter dated October 16, 2014 for Fiscal Year 2015 goals – MOD 0045, Incorporate approval letter dated December 14, 2015 for Fiscal Year 2016 goals – MOD 0052, Incorporate approval letter dated November 14, 2016 for Fiscal Year 2017 goals – MOD 0084, Incorporate approval letter dated December 21, 2017 for Fiscal Year 2018 goals – MOD 0157, Incorporate approval letter dated October 30, 2018 for Fiscal Year 2019 goals – MOD 0157, Incorporate approval letter dated December 11, 2019 for Fiscal Year 2020 goals – MOD 0191, Incorporate approval letter dated September 30, 2020 for Fiscal Year 2021 goals – MOD 0276, Incorporate approval letter dated January 26, 2022 for Fiscal Year 2022 goals – MOD 0276, Incorporate approval letter dated September 28, 2022 for Fiscal Year 2023 goals – MOD 0276, Incorporate approval letter dated September 6, 2023 for Fiscal Year 2024 goals – MOD 0303, Incorporate approval letter dated April 9, 2025 for Fiscal Year 2025 goals – MOD 0356]

consolidated nuclear security, llc

301 Bear Creek Rd.
P.O. Box 2009
Oak Ridge, TN 37831-6501

Office: 865.241.4240
Fax: 865.241.2150

April 9, 2025

Ms. Deborah L. Garland
Contracting Officer
Y-12 Field Office
Post Office Box 2050
Oak Ridge, Tennessee 37831-8009

Dear Ms. Garland:

Contract DE-NA0001942, Fiscal Year 2025 Small Business Subcontracting Plan

Per your request attached is the Consolidated Nuclear Security, LLC (CNS) Fiscal Year (FY) 2025 Small Business Subcontracting Plan. As discussed on March 13, 2025, this document utilizes the provided template, is an Individual Plan and only includes FY2025. This plan includes goals previously submitted (letter October 15, 2024) and approved (October 23, 2024) and additional details as to how the goals will be accomplished in FY2025.

CNS will continue to work to identify small business construction subcontractors and expand our small business industrial base in an effort to maintain growth in small business utilization and offset large business spend.

If you have questions or concerns, please contact me at 865.241.4240 or Scott Clemons, Director, Supply Chain Business Management at 865.241.4907.

Sincerely yours,

[redacted]

Rick D. Hillert
Senior Director, Supply Chain Management

Attachment: As stated

c/atts: Scott E. Clemons
Nicolina F. Grover
Katherine A. Hernandez
Barry S. Hyden
Ryan T. Johnston
Frances A. Lopez
Greta S. Ownby
Susan C. Starr

Concurrence:

By: Deborah L Garland [redacted]
Contracting Officer

C-4738

Consolidated Nuclear Security, LLC
SUBCONTRACTING PLAN

This plan follows the format for addressing the fifteen elements as shown at Federal Acquisition Regulation (FAR) 52.219-9(d) (SEP 2023). This template does not absolve the offeror from meeting all requirements of an acceptable plan as required by the clause. Failure to provide an acceptable plan as prescribed by contracting officer will render the offeror ineligible for contract award (See FAR 19.702(a)(1).

CONTRACT NUMBER: DE-NA0001942

Contractor Name and address:
Consolidated Nuclear Security, LLC
301 Bear Creek Road
P.O. Box 2009, Oak Ridge, TN 37830

Approximate Value of Contract: $48,874,052,449.47

Contract Period of Performance (if applicable): *January 8, 2013 - September 30, 2027*

(x) Individual Subcontracting Plan ( ) Master Subcontracting Plan ( ) Commercial Plan

(1) GOALS

State goals as a percentage of total planned subcontracting dollars (required)and as a percentage of total contract dollars (optional, per the contracting officer) that will go to all Small Business (SB) concerns, Historically Underutilized Business Zone (HUBZone) SB concerns, Small Disadvantaged Business (SDB) concerns, Woman-Owned SB (WOSB) concerns, Veteran-Owned SB (VOSB) concerns, and Service-Disabled Veteran-Owned SB (SDVOSB) concerns.

This Small Business Subcontracting Plan includes goals for subcontracting with Small Business (SB) concerns including Veteran-Owned Small Business (VOSB), Service-Disabled Veteran-Owned Small Business (SDVOSB), HUBZone Small Business (HubSB), Small Disadvantaged Business (SDB), and Woman Owned Small Business (WOSB), collectively referred to as “small business concerns." Small business subcontracting goals reflect a positive impact on local geographic areas and commitment to support small businesses. Accomplishments towards these goals will be submitted through the eSRS System.

The proposed goals are based on the estimated budget, commercial purchases, and procurement influenced spend derived from the fiscal year budget. The percentage and dollar goals shown below are for FY25 only. Subsequent goals will be determined yearly based on anticipated budget forecasts and will then be added to the prime contract.

Goals may be changed within the first six months of each fiscal year by agreement between the Contracting Officer and the Contractor if there is a cancelation or an addition of program or project funding.

Goal Table

Base Contract Year/Period - FY2025
Approximate Contract Period Value:
Total Y-12 $3,019,058,624
Total Y-12 less UPF $2,250,333,139

Total Value of all planned subcontracting: $675,937,705 (Y-12: $611,937,705; UPF: $64,000,000)
Includes one month (October 2024) of Pantex

Base Contract Period	(%) Total Planned Subcontracting dollars	Notes
a. SB:	56%	(Includes HUBZone SB, SDB, WOSB, VOSB, SDVOSB, ANCs, and Indian tribes when applicable.)
b. VOSB:	6%	
c. SDVOSB:	3.5%	
d. HUBZone:	4%	
e. SDB:	15%	(Includes ANCs and Indian tribes)
f. WOSB:	7%	

(2) STATEMENT OF DOLLARS

The following dollar values correspond to the percentage goals in (1). These dollar amounts will vary based on funding and actual spend.

Base Contract Period (Dollar value):

	Total planned subcontracting dollars:	$ 675,937,705
a.	Dollars planned to be subcontracted to SB (includes HUBZone SB, SDB, WOSB, VOSB, SDVOSB,):	$ 378,525,115
b.	Dollars planned to be subcontracted to VOSB:	$ 40,556,262
c.	Dollars planned to be subcontracted to SDVOSB:	$ 23,657,820
d.	Dollars planned to be subcontracted to HUBZone SB:	$ 27,037,508
e.	Dollars planned to be subcontracted to SDB (includes ANCs and Indian tribes):	$101,390,656
f.	Dollars planned to be subcontracted to WOSB:	$ 47,315,639

(3) DESCRIPTION OF PRINCIPAL TYPES OF SUPPLIES AND SERVICES TO BE SUBCONTRACTED AND TYPES OF BUSINESSES SUPPLYING THEM (Check all that apply)

PRINCIPAL SUPPLY/SERVICE	SB	VOSB	SDVOSB	HUBZone SB	SDB	WOSB
Information Technology (hardware, software, etc.)	x	x				
Architectural & Engineering Services	x				x	x
Construction	x	x	x	x	x	x
Construction Support	x	x	x	x	x	x
Equipment Fabrication	x	x	x	x	x	
Professional Services	x				x	
General Commodities	x	x	x	x	x	x

(4) METHOD USED TO DEVELOP GOALS

Explain how you arrived at your percentage goals and dollars for subcontracting to SB, VOSB, SDVOSB, HUBZone SB, SDB, and WOSB: *Past performance and multi-year agreements/contract awards.*

(5) METHOD USED TO IDENTIFY POTENTIAL SUBCONTRACTING SOURCES
(Check all that apply):

x Company Source Lists

x System for Award Management (SAM) database

x Veteran Service Organizations

____ National Minority Purchasing Council Vendor Information Service

____ U.S. Department of Commerce Minority Business Development Agency's Research and Information Division

x SB, HUBZone SB, SDB, and WOSB Trade Associations

x SBA's Lists of Certified SDB and HSB Concerns and Dynamic Small Business Search database

x SB and Minority Business trade fairs or conferences

x APEX Accelerator & Small Business Development Center referrals and events; Economic development associations/organizations (ie. chambers of commerce, ETEC, ETEBA)

(6) INDIRECT COSTS (Check which applies.)

x Indirect costs ***have not*** been included in establishing subcontracting goals.

____ Indirect costs ***have*** been included in establishing subcontracting goals.

If included, describe how you determine the proportionate share of indirect costs incurred with:

SB (Including ANCs and Indian tribes):
VOSB:
SDVOSB:
HUBZone SB:
SDB (Including ANCs and Indian tribes):
WOSB:

(7) ADMINISTRATION OF SUBCONTRACTING PROGRAM

The following individual employed by the offeror will administer this subcontracting plan:

Name: [redacted]
Address: 301 Bear Creek, P.O. Box 2009, Oak Ridge, TN 37831
Telephone: [redacted]
Title: Vendor Advocate (Small Business Program Manager)
Description of Duties:
Has general overall responsibility for the Contractor's subcontracting program, i.e., developing, preparing, and executing individual subcontracting plans and monitoring performance relative to the requirements of this particular plan.

The actual duties of how the administrator will carry out the requirements of this individual plan should may include, but are not limited to, the following activities:

- Maintaining source lists of potential SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors
- Ensuring that procurement packages are structured to permit participation of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors to the maximum extent possible
- Seeking other SB concerns utilizing outreach opportunities
- Ensuring that proper documentation is provided by the bid proposal team if an SB, VOSB, SDVOSB, HubSB, SDB, or WOSB subcontractor who provided a low bid is not selected

- Attending business opportunity workshops, minority business enterprise seminars, trade fairs, etc.
- Monitoring achievements, keeping records, and measuring performance against established goals
- Monitor activities to evaluate compliance with the subcontracting plan and CNS procedures
- Mentoring SBs currently under subcontract and enhancing their ability to provide timely, cost-effective, and quality services
- Facilitating contact between SB suppliers and respective procurement and technical/ program personnel
- Advising and training procurement personnel on the purposes of the Small Business Subcontracting Plan and fostering their support of the plan
- Attending SB training and monitoring program changes to ensure compliance at CNS
- Ensuring applicable procedures and instructions are reviewed and amended to foster CNS "small business first" philosophy
- Ensuring that subcontracts contain the flowdown clauses pertaining to SB concerns, when required, and maintaining the policies and procedures required by the prime contract
- Reviewing and approving small business subcontracting plans submitted by large businesses, where applicable
- Verifying that lower-tier large business subcontractors submit small business subcontracting plans (when applicable) and the required semi-annual and annual subcontracting reports, and verifying compliance
- Establishing and maintaining contacts and communication with other SB program advocates support, implement, or enhance the CNS SB program
- Maintaining good working relationships with SBA and DOE/NNSA representatives to obtain assistance and coordination in finding capable SBs
- Submitting monthly progress reports to NNSA reporting on small business utilization

(8) EQUITABLE OPPORTUNITY TO COMPETE

Describe your efforts to ensure that SB, VOSB, SDVOSB, HUBZone SB, SDB, and WOSB will have an equitable opportunity to compete for subcontracts. Examples of these efforts include, but are not limited to, the following activities:

Outreach Efforts to Obtain Sources:

- Contacting minority and small business service and trade associations
- Contacting business development organizations
- Attending small and minority business procurement conferences and trade fairs
- Using SAM and SBA databases to research sources
- Fostering relationships with small businesses and organizations providing guidance/support for small businesses

Internal Efforts to Guide and Encourage Purchasing Personnel:

- Presenting workshops, seminars, and training programs
- Establishing, maintaining, and using SB, VOSB, SDVOSB, HUBZone SB, SDB, and WOSB source lists, guides, and other data for soliciting subcontracts
- Reviewing source lists prior to solicitation and adding small business to lists as appropriate
- Conducting introduction sessions between purchasing representatives and small business suppliers through virtual/in-person one-on-one meetings and through matchmaking sessions

(9) INCLUSION OF FAR CLAUSE 52.219-8, "UTILIZATION OF SMALL BUSINESS CONCERNS," IN SUBCONTRACTS

Place a check by each statement as assurance that the following will be done (Proposed subcontracting plans with unchecked boxes are considered unacceptable):

x I agree to include clause at FAR 52.219-8, "Utilization of Small Business Concerns," in all subcontracts that offer further subcontracting opportunities.

x I will require all subcontractors (except SB concerns or entities that are treated as small business concerns by statute) that receive subcontracts **in excess of the applicable threshold specified in FAR 19.702(a) on the date of subcontract award** to adopt a subcontracting plan that complies with the clause at FAR 52.219-9, Small Business Subcontracting Plan.

(10) REQUIREMENT TO COOPERATE IN STUDIES AND SUBMISSION OF REPORTS

Place a check by each statement as assurance that the following will be done (Proposed subcontracting plans with unchecked boxes are considered unacceptable):

x (i) I agree to cooperate in any studies or surveys as may be required.

x (ii) I agree to submit periodic reports so the government can determine the extent of compliance with the subcontracting plan.

x (iii) I agree, after November 30, 2017, to include subcontracting data for each order when reporting subcontracting achievements for indefinite-delivery, indefinite-quantity contracts intended for use by multiple agencies.

x (iv) I agree to:

a. Submit the Individual Subcontract Report (ISR) and/or the Summary Subcontract Report (SSR), in accordance with paragraph l of the clause at FAR 52.219-9 using the Electronic Subcontracting Reporting System (eSRS) at http://www.esrs.gov. The reports shall provide information on subcontract awards to SB concerns (including ANCs and Indian tribes that are not SBs), VOSB concerns, SDVOSB concerns, HUBZone SB concerns, SDB concerns (including ANCs and Indian tribes that have not been certified by SBA as SDBs), WOSB concerns, HICUs, and MIs.

Reporting will be in accordance with the clause at FAR 52.219-9, or as provided in agency regulations.

b. Submit the ISR semi-annually during contract performance for the periods ending March 31 and September 30, and to submit a report within 30 days of contract completion. I shall submit the reports within 30 days after the close of each reporting period, unless otherwise directed by the contracting officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period. When the contracting officer rejects an ISR, I agree to submit a revised ISR within 30 days of receiving the notice of the ISR rejection.

c. Submit the SSR annually by October 30 for the twelve-month period ending September 30. When an SSR is rejected, I agree to submit a revised SSR within 30 days of receiving the notice of SSR rejection.

x (v) I agree to ensure that my subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS.

x (vi) I agree to provide this prime contract number, its unique entity identifier number, and the email address of our company official responsible for acknowledging receipt of or rejecting the ISRs, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their ISRs.

x (vii) I agree to require that each subcontractor with a subcontracting plan provide the prime contract number, its own unique entity identifier number, and the email address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to its subcontractors with subcontracting plans.

(11) DESCRIPTION OF TYPES OF RECORDS TO BE MAINTAINED (Check if in agreement. (Proposed subcontracting plans with unchecked boxes are considered unacceptable):

x I agree to maintain the following records to show compliance with this subcontracting plan:

a. Source lists, guides, and other data that identify SB, VOSB, SDVOSB, HUBZone SB, SDB, and WOSB concerns.

b. Records on organizations contacted to locate SB, VOSB, SDVOSB, HUBZone SB, SDB, and WOSB sources.

c. Records on each subcontract solicitation resulting in an award of more than the simplified acquisition threshold, indicating:
   (1) Whether SB concerns were solicited and, if not, why not
   (2) Whether VOSB concerns were solicited and, if not, why not
   (3) Whether SDVOSB concerns were solicited and, if not, why not
   (4) Whether HUBZone SB concerns were solicited and, if not, why not
   (5) Whether SDB concerns were solicited and, if not, why not
   (6) Whether WOSB concerns were solicited and, if not, why not
   (7) If applicable, the reason award was not made to a SB, SDVOSB, VOSB,

HUBZone SB, SDB, or WOSB concern

d. Records of outreach efforts to contact:
   (1) Trade associations
   (2) Business development organizations
   (3) Conferences and trade fairs to locate SB, HUBZone SB, SDB, SDVOSB, and WOSB sources
   (4) Veterans service organizations
e. Records of internal guidance and encouragement provided to buyers through:
   (1) Workshops, seminars, training, etc.
   (2) Monitoring performance to evaluate compliance with the program's requirements.
f. On a contract-by-contract basis, records to support award data submitted to the government, including the name, address, and business size of each subcontractor (does not apply to commercial plans).

Describe other types of records that will be maintained as part of the subcontracting program/plan requirements and goals, if applicable:

(12-15) Other Assurances

x (12) I agree to make a good faith effort to acquire articles, equipment, supplies, services, or materials, or obtain the performance of construction work from the small business concerns that I used in preparing the bid or proposal, in the same or greater scope, amount, and quality used in preparing and submitting the bid or proposal. The small business concerns used in preparing the bid or proposal include —
   a. Any small business concern identified as a subcontractor in the bid or proposal or associated small business subcontracting plan, to furnish certain supplies or perform a portion of the contract; or
   b. Any small business concern whose pricing or cost information or technical expertise was used in preparing the bid or proposal, where there is written evidence of an intent or understanding that the small business concern will be awarded a subcontract for the related work if I am awarded the contract.

x (13) I agree to provide the contracting officer with a written explanation if I fail to acquire articles, equipment, supplies, services, or materials or obtain the performance of construction work as described in the preceding statement of this section. I will submit this explanation to the contracting officer within 30 days of contract completion.

x (14) l agree to not prohibit a subcontractor from discussing with the contracting officer any material matter pertaining to payment to or utilization of a subcontractor.

x (15) I agree to pay my small business subcontractors on time and in accordance with the terms and conditions of the subcontract, and to notify the contracting officer if I pay a reduced or an untimely payment to a small business subcontractor.

This subcontracting plan was prepared by:

Signature: [redacted]

Printed name: Rick D. Hillert

Title: Senior Director, Supply Chain Management

Phone number: [redacted]

Date prepared: April 9, 2025

CNS | consolidated nuclear security, llc
PANTEX PLANT | Y-12 NATIONAL SECURITY COMPLEX

301 Bear Creek Rd.
P.O. Box 2009
Oak Ridge, TN 37831-6501

Office: 865.574.4987
Fax: 865.241.2150

September 6, 2023

Mr. Aaron Fehl
Contracting Officer
NNSA Production Office
PO Box 2009
Oak Ridge, TN 37831-6501

Dear Mr. Fehl:

Contract DE-NA0001942, Fiscal Year 2024 Small Business Subcontracting Goals

Following are the Consolidated Nuclear Security, LLC (CNS) proposed Fiscal Year (FY) 2024 Small Business Goals addressing each of the small business categories:

	CNS FY 2024 Goals
Small Business	55.0%
Small Disadvantaged Business	14.0%
Small Woman-Owned Business	7.0%
Small HUBZone Business	5.0%
Veteran-Owned Small Business	6.0%
Service-Disabled Veteran-Owned Small Business	3.0%

In determination of the above goals, the following procurement base information, in conjunction with current and previous fiscal year performance, was utilized:

FY 2024 Projected Procurement Base: $819,499,986

The projected procurement base estimate above represents total commitments comprised of both direct and indirect costs associated with planned procurements for the Y-12 National Security Complex (Y-12), the Pantex Plant (Pantex), and the Uranium Processing Facility Project (UPF). In order to establish goal percentages, CNS used a small business percentage based on historical average increases/decreases for small and large business dollars using data from 2014 forward to establish a trend to determine a reasonable goal.

The Total FY24 Projected Procurement Base is comprised of the following:

- Y-12/Pantex $753,499,986
- Uranium Processing Facility (UPF) $ 66,000,000

Existing large business spend reports and forecast commitments were reviewed for possible convertible requirements as part of this process to ensure that small business opportunities are always considered. Large business risks that are taken into consideration are as follows: Lithium Processing Facility (LPF), High Explosives Science & Engineering Facility (HESE), Uranium Processing Facility (UPF) change orders for delivered or procured equipment, depleted uranium management disposal/shipments, credit card purchases (counted as large), awards to universities, benefits, architect/engineer needs, and awards to large firms that maintain a "possessing facility" status.

The proposed percentages above and included in the attached worksheet are contingent on funding and scope assumptions currently directed by the National Nuclear Security Administration, in the event significant modifications to these assumptions are experienced, CNS reserves the right to revisit these goals and adjust accordingly.

The estimate was established in accordance with Federal Acquisition Regulation clauses 52.219-8 and 52.219-9 to provide "maximum practicable opportunities" for small businesses to compete for and participate in performing subcontracts with Y-12, Pantex, and UPF.

Additionally, we stand committed to a 7.0% goal for Woman Owned Small Business for FY24. The rationale supporting our commitment is based on the following: 1) 7.0% is a realistic goal in consideration of recent years performance and anticipation of FY24 projects that will, by the nature of the work and the geographical locations of our two sites, be awarded to other than small business; 2) The Small Business and Small Disadvantaged Business goals were increased from FY23 goal levels, noting a commitment to increasing contract awards in areas where we feel we have the greatest potential for a positive impact.

CNS will continue to look for opportunities to offset any large business spend that may be convertible to small in order to maintain small business utilization growth until the successful completion of the UPF Project forecast in 2025.

If you have any questions or concerns, please contact me at 865-574-4987 or Scott Clemons, Director, Enterprise Business Management at 865-241-4907.

Sincerely yours,

[redacted]

Barry S. Hyden
Director, Procurement Operations

SEC:jg

Mr. Aaron Fehl
Page 3
September 6, 2023

c/att: Scott E. Clemons
Rick D. Hillert
Gary G. Lyttek, NNSA
Claude E. Rogers

Concurrence:

By: Aaron (FSA) Fehl [redacted] Date: _____
Contracting Officer

NNSA-2022-005683

Department of Energy
National Nuclear Security Administration
Production Office
Post Office Box 2050
Oak Ridge, Tennessee 37831
Post Office Box 30030
Amarillo, Texas 79120

September 28, 2022

Mr. Rick D. Hillert
Director, Supply Chain Management
Consolidated Nuclear Security, LLC
Post Office Box 2009
Oak Ridge, Tennessee 37831

Dear Mr. Hillert:

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2023 SMALL BUSINESS SUBCONTRACTING GOALS

References: (1) Letter from Rick D. Hillert to Connie D. Bayless, *Contract DE-NA0001942, Fiscal Year 2023 Small Business Subcontracting Goals*, dated July 28, 2022
(2) Email from Rick D. Hillert to Connie D. Bayless, *Contract DE-NA0001942, Fiscal Year 2023 Small Business Subcontracting Goals*, dated September 26, 2022

The National Nuclear Security Administration (NNSA) has reviewed the Consolidated Nuclear Security, LLC (CNS) proposed Fiscal Year (FY) 2023 Small Business Subcontracting Goals (Reference). Based on the information CNS has provided, and review by the NNSA Small Business Program office, the below proposed small business goals have been agreed to and are hereby established for FY 2023:

Small Business Program	FY 2023 Goals
Small Business	53.5%
Small Disadvantaged Business	13.0%
Woman-owned Small Business	10.0%
HUBZone	5.0%
Veteran-owned Small Business	6.0%
Service-Disabled Veteran Owned Small	3.0%

The goals have been estimated and are established based on the projected procurement base of $794,361,496.

Differences between the actual and projected procurement base shall not entitle CNS to an adjustment in the above goals.

CNS shall comply with the small business policy in accordance with FAR 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2023 goals indicated above.

Mr. Rick D. Hillert -2-

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2023 SMALL BUSINESS SUBCONTRACTING GOALS

Thank you for your cooperation during NNSA's review. If you have any questions or concerns, please contact Gary Lyttek at gary.lyttek@nnsa.doe.gov or Connie Bayless at connie.bayless@npo.doe.gov.

Sincerely,

[redacted]

Connie D. Bayless
Contracting Officer

cc:
Gary Lyttek, NA-APM
Raymond Cruz, NA-APM
Teresa Robbins, NPO-01
Janice Brashears, NPO-50
Contracting Officers, NPO-50
J. Brian Bidwell, CNS
Scott Clemons, CNS
Randy Crawford, CNS
Jason Eaton, CNS
Doug Freund, CNS
Greta Ownby, CNS
Willie Wilson, CNS

NNSA-2022-000626

Department of Energy
National Nuclear Security Administration
Production Office
Post Office Box 2050
Oak Ridge, Tennessee 37831
Post Office Box 30030
Amarillo, Texas 79120

January 26, 2022

Mr. Jason R. Eaton
Senior Director, Supply Chain Management
Consolidated Nuclear Security, LLC
Post Office Box 2009
Oak Ridge, Tennessee 37831-6501

Dear Mr. Eaton:

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2022 SMALL BUSINESS SUBCONTRACTING GOALS

Reference: Letter from Cynthia G. Morgan to Connie D. Bayless, *Contract DE- NA0001942, Fiscal Year 2022 Small Business Subcontracting Goals*, dated September 16, 2021

The National Nuclear Security Administration (NNSA) has reviewed the Consolidated Nuclear Security, LLC (CNS) proposed Fiscal Year (FY) 2022 Small Business Subcontracting Goals (Reference). Thank you for your cooperation during NNSA's review. Based on the information CNS has provided, and review by the NNSA Small Business Program office, the below proposed small business goals have been agreed to and are hereby established for FY 22:

Small Business Program	FY 22 Goals
Small Business	51.5%
Small Disadvantaged Business	13.2%
Woman-owned Small Business	11.4%
HUBZone	4.5%
Veteran-owned Small Business	5.7%
Service-Disabled Veteran Owned Small	3.0%

The goals have been estimated and are established based on the projected procurement base of $809,795,145.

Differences between the actual and projected procurement base shall not entitle CNS to an adjustment in the above goals.

CNS shall comply with the small business policy in accordance with FAR 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 22 goals indicated above.

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2022 SMALL BUSINESS SUBCONTRACTING GOALS

If you have any questions or concerns, please contact gary.lyttek@nnsa.doe.gov or connie.bayless@npo.doe.gov.

Sincerely,

[redacted]

Connie D. Bayless
Contracting Officer

cc:
Gary Lyttek, NA-APM
Raymond Cruz, NA-APM
Janice Brashears, NPO-50
Contracting Officers, NPO-50
Ricky Hillert, CNS
Scott Clemons, CNS
Randy Crawford, CNS
Michael Vermeulen, CNS

COR-NPO-50 BCM-9.30.2020-894000

Department of Energy
National Nuclear Security Administration
Production Office
Post Office Box 2050
Oak Ridge, Tennessee 37831
Post Office Box 30030
Amarillo, Texas 79120

September 30, 2020

Mr. Jason Eaton
Senior Director, Supply Chain Management
Consolidated Nuclear Security, LLC
Post Office Box 2009
Oak Ridge, Tennessee 37831

Dear Mr. Eaton:

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2021 SMALL BUSINESS SUBCONTRACTING GOALS

Reference: Letter from Jason Eaton to Gregory Gonzales and Justin Higdon, *Contract DE-NA0001942, Fiscal Year 2021 Small Business Subcontracting Goals*, dated September 10, 2020 (CCN202088868)

The National Nuclear Security Administration (NNSA) has reviewed the Consolidated Nuclear Security, LLC (CNS) proposed Fiscal Year (FY) 2021 Small Business Subcontracting Goals (Reference). Thank you for your cooperation during NNSA's review. Based on the information CNS has provided and review by the NNSA Small Business Program office, the below proposed small business goals have been agreed to and are hereby established for fiscal year 2021:

Small Business Program	FY 2021 Goals
Small Business	61.0%
Small Disadvantaged Business	15.0%
Woman-owned Small Business	14.0%
HUBZone	4.5%
Veteran-owned Small Business	7.0%
Service-Disabled Veteran Owned Small Business	3.0%

The goals have been estimated and are established based on the projected procurement base of:

- Contract Line Item Number 0001 (Y/12 and Pantex): $767.1 million
- Contract Line Item Number 0002 (Uranium Processing Facility): $119.6 million

Differences between the actual and projected procurement base shall not entitle CNS to an adjustment in the above goals.

CNS shall comply with the small business policy in accordance with FAR 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2021 goals indicated above. In addition, NNSA would like to better understand the impact of the Uranium Processing Facility small business goals and procurement forecast on the small business goals proposed by CNS.

Mr. Jason Eaton -2-

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2021 SMALL BUSINESS SUBCONTRACTING GOALS

If you have any questions or concerns, please contact the undersigned at Justin.Higdon@npo.doe.gov or Gregory Gonzales at Gregory.Gonzales@nnsa.doe.gov.

Sincerely,

[redacted]

Justin Higdon
Contracting Officer

cc:
Gregory Gonzales, NA-APM
Gary Lyttek, NA-APM
Raymond Cruz, NA-APM
Lloyd DeSerisy, NPO-50
Janice Brashears, NPO-50
DL-NPO Contracting Officers
Jason Eaton, CNS
Ricky Hillert, CNS
Cynthia Morgan, CNS
Scott Clemons, CNS
Randy Crawford, CNS
Michael Vermeulen, CNS

COR-NPO-50 BCM-12.11.2019-864980

Department of Energy
National Nuclear Security Administration
Production Office
P.O. Box 2050, Oak Ridge, TN 37831
P.O. Box 30030, Amarillo, TX 79120

December 11, 2019

Mr. Jason Eaton
Deputy Director, Supply Chain Management
Consolidated Nuclear Security, LLC
Post Office Box 2009
Oak Ridge, TN 37831

Dear Mr. Eaton:

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2020 SMALL BUSINESS SUBCONTRACTING GOALS

References: (1) Letter from Skip Skelton for Jason Eaton to Frank Cruz, "Contract DE-NA0001942, Fiscal Year 2020 Small Business Subcontracting Goals," dated September 12, 2019 (CCN201986331)
(2) E-mail from Justin Higdon to Skip Skelton cc: Jason Eaton, "NNSA HQ SB Proposed Goals," dated November 13, 2019
(3) E-mail from Jason Eaton to Justin Higdon and Skip Skelton, "RE: NNSA HQ SB Proposed Goals," dated December 4, 2019

The National Nuclear Security Administration (NNSA) has reviewed the Consolidated Nuclear Security, LLC (CNS) proposed Fiscal Year (FY) 2020 Small Business Subcontracting Goals (Reference 1). Thank you for your cooperation during NNSA's review. Based on the information CNS provided and a review by the NNSA Small Business Program office, the below small business subcontracting goals have been negotiated and agreed to and are hereby established for FY 2020:

Small Business Program	FY 2020 Goals
Small Business	58.0%
Small Disadvantaged Business	14.0%
Woman-owned Small Business	12.0%
HUBZone	4.0%
Veteran-owned Small Business	6.0%
Service-Disabled Veteran Owned Small Business	3.5%

Mr. Jason Eaton -2-

CONTRACT DE-NA0001942, ESTABLISHMENT OF FISCAL YEAR 2020 SMALL BUSINESS SUBCONTRACTING GOALS

CNS shall comply with the small business policy in accordance with FAR 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2020 goals indicated above. In addition, NNSA would like to better understand the impact of the Uranium Processing Facility small business goals and procurement forecast on the small business goals proposed by CNS.

Please contact me at Justin.Higdon@npo.doe.gov if you have any questions or concerns.

Sincerely,

[redacted]

Justin Higdon
Contracting Officer

cc:
G. Gonzales, NA-APM
G. Lyttek, NA-APM
L. DeSerisy, NPO-50
J. Brashears, NPO-50
NPO Contracting Officers
S. Skelton, CNS
M. Vermeulen, CNS

Department of Energy
National Nuclear Security Administration
Production Office
P.O. Box 2050, Oak Ridge, Tennessee 37831
P.O. Box 30030, Amarillo, Texas 79120

October 30, 2018

Mr. B. (Skip) Skelton
Director, Supply Chain Management
Consolidated Nuclear Security, LLC
P.O. Box 2009
Oak Ridge, Tennessee 37831-8004

Dear Mr. Skelton:

CONTRACT DE-NA0001942, APPROVAL OF FISCAL YEAR 2019 SMALL BUSINESS SUBCONTRACTING GOALS

Reference Letter from Cindy Morgan to Frank G.E. Cruz, subject, Contract DE-NA-NA0001942, Fiscal Year 2019 Small Business Subcontracting Goals, dated September 12, 2018

The National Nuclear Security Administration (NNSA) reviewed the Consolidated Nuclear Security, LLC (CNS), proposed Fiscal Year (FY) 2019 Small Business Subcontracting Goals and concludes the intent of this agreement is not to reduce small business goals when a company has consistently performed higher than the overall goal. Therefore, NNSA approves CNS FY 2019 Small Business Subcontracting Goals based on the procurement base of $785M as indicated below:

SB Program	FY 2019 Goals
Small Business	62.5%
Small Disadvantaged Business	14%
Woman-Owned Small Business	14%
HUBZone	4%
Veteran-Owned Small Business	7.5%
Service Disabled Veteran-Small Business	3.5%

CNS shall comply with the small business policy in accordance with FAR Part 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2019 Goals indicated above.

If you have any questions, please contact me at (806)-573-6699.

Sincerely,

[redacted]

Frank G.E. Cruz
Contracting Officer

See ccs 2nd page

COR-NPO-50 BCM-10.30.2018-813864

Department of Energy
National Nuclear Security Administration
Production Office
P.O. Box 2050
Oak Ridge, Tennessee 37831
P.O. Box 30030
Amarillo, Texas 79120

December 21, 2017

Ms. Cindy G. Morgan
Director, Procurement Operations & Business Management
Consolidated Nuclear Security, LLC
P.O. Box 2009
Oak Ridge, Tennessee 37831-6501

Dear Ms. Morgan:

CONTRACT DE-NA0001942, APPROVAL OF FISCAL YEAR 2018 SMALL BUSINESS SUBCONTRACTING GOALS

Reference: Letter from Cindy Morgan to Frank G.E. Cruz, *Contract DE-NA-NA0001942, Fiscal Year 2018 Small Business Subcontracting Goals*, dated 20 Nov 2017

The National Nuclear Security Administration (NNSA) reviewed the Consolidated Nuclear Security, LLC (CNS), Fiscal Year (FY) 2018 Small Business Goals, and concludes based on the information provided a lower FY18 small business goal is acceptable. Therefore, NNSA approves the CNS FY 2018 Small Business Subcontracting Goals based on the procurement base of $873.5M as indicated below:

SB Program	FY 2018 Goals
Small Business	50%
Small Disadvantaged Business	12%
Woman-Owned Small Business	12%
HUBZone	3.5%
Veteran-Owned Small Business	6%
Service Disabled Veteran-Small Business	3.5%

CNS shall comply with the small business policy in accordance with FAR Part 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2018 Goals indicated above.

If you have any questions, please contact me at (806)-477-6699.

Sincerely,

[redacted]

Frank G.E. Cruz
Contracting Officer

See ccs 2nd page

COR-NPO-50 BCM-12.21.2017-772565

Department of Energy
National Nuclear Security Administration
Production Office
P.O. Box 2050
Oak Ridge, Tennessee 37831
P.O. Box 30030
Amarillo, Texas 79120

November 14, 2016

Mr. B. (Skip) Skelton
Director, Supply Chain Management
Consolidated Nuclear Security, LLC
P.O. Box 2009
Oak Ridge, Tennessee 37831-8004

Dear Mr. Skelton:

CONTRACT NO. DE-NA0001942, APPROVAL OF FISCAL YEAR 2017 SMALL BUSINESS SUBCONTRACTING GOALS

Reference: Letter from Richard K. Atwood to Frank G.E. Cruz, subject, Contract DE-NA0001942, Fiscal Year 2017 Small Business Subcontracting Goals, dated October 25, 2016

The National Nuclear Security Administration (NNSA) reviewed the Consolidated Nuclear Security, LLC (CNS), Fiscal Year (FY) 2017 Small Business Subcontracting Goals, and concludes the intent of this agreement is not to reduce small business goals when a company has consistently performed higher than the overall goal. Therefore, NNSA approves the CNS FY 2017 Small Business Subcontracting Goals based on the procurement base of $475M as indicated below:

SB Program	FY 2017 Goals
Small Business	60%
Small Disadvantaged Business	12%
Woman-Owned Small Business	12%
HUBZone	4%
Veteran-Owned Small Business	6%
Service Disabled Veteran-Small Business	4%

CNS shall comply with the small business policy in accordance with FAR Part 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2017 goals indicated above.

If you have any questions, please contact me at (806) 477-6699.

Sincerely,

[redacted]

Frank G.E. Cruz
Contracting Officer

COR-NPO-50 BCM-11.14.2016-706351

Department of Energy
National Nuclear Security Administration
Production Office
P.O. Box 2050
Oak Ridge, Tennessee 37831
P.O. Box 30030
Amarillo, Texas 79120

December 14, 2015

Mr. B. (Skip) Skelton
Director, Supply Chain Management
Consolidated Nuclear Security, LLC
P.O. Box 2009
Oak Ridge, Tennessee 37831-8004

Dear Mr. Skelton:

CONTRACT NO. DE-NA0001942, FISCAL YEAR 2016 SMALL BUSINESS SUBCONTRACTING GOALS

The Consolidated Nuclear Security, LLC (CNS) Fiscal Year (FY) 2016 Small Business Subcontracting goals are approved based on the procurement base of $425M. CNS shall comply with the small business policy in accordance with FAR Part 52.219-8(b) & (c) to award subcontracts to the fullest extent consistent with efficient contract performance based on the approved FY 2016 Goals indicated below:

SB PROGRAM	FY 2016 GOALS
Small Business	55%
Small Disadvantaged Business	10%
Woman-Owned Small Business	10%
HUBZone	3%
Veteran-Owned Small Business	4%
Service Disabled Veteran Small Business	3%

If you have any questions, please contact me at (806) 477-6699.

Sincerely,

[redacted]

Frank G. E. Cruz
Contracting Officer

cc:
Dan Saiz, APM-131
Gregory Gonzales, NA-APM-1
Gary Lyttek, NA-APM-1
Michael Bocskovits, UPO
Phil Kirby, UPO
Lloyd DeSerisy, NPO-50
Becky Tracy, NPO-50
Janice Brashears, NPO-50
Jill Albaugh, NPO-50
Connie Bayless, NPO-50
Justin Higdon, NPO-50

COR-NPO-50 BCM-12.14.2015-655402

National Nuclear Security Administration

U.S. Department of Energy
NNSA Production Office
Post Office Box 2050
Oak Ridge, Tennessee 37831-8009

October 16, 2014

Mr. B. (Skip) Shelton
Director, Supply Chain Management
Consolidated Nuclear Security, LLC
P.O. Box 2009
Oak Ridge, Tennessee 37831-8004

Dear Mr. Shelton:

CONTRACT NO DE-NA0001942, FISCAL YEAR 2015 SMALL BUSINESS SUBCONTRACTING GOALS

The Consolidated Nuclear Security, LLC (CNS) Fiscal Year (FY) 2015 small business subcontracting goals are approved based on the procurement based of $400,000,000.

	FY 2015 Goals
Small Business	65%
Small Disadvantaged Business	10%
Woman-Owned Business	10%
HUBZone	4%
Veteran-Owned Business	4%
Service Disabled Veteran-Business	3%

If you have any questions, please contact me at (865) 241-3917 or at my alternate number at (865) 576-4220.

Sincerely,

[redacted]

Connie D. Bayless
Contracting Officer
NNSA Production Office

cc:
Jill Albaugh, NPO-50
Leticia Barela, APM-13.1, ALB
Janice Brashears, NPO-50
Michael Bocskovits, UPO
Frank G.E. Cruz, NPO-50
Phil Kirby, UPO
Seb Klein, NPO-50
Becky Tracy, NPO-50
Tom Vereb, NPO-50

COR-NPO-50 BCM-10.16.2014-599013

Small Business Subcontracting Plan

FAR 19.708(b) prescribes the use of the Contract's Section I Clause entitled "FAR 52.219-9, Small Business Subcontracting Plan." The following is a suggested model for use when formulating such subcontracting plan. While this model plan has been designed to be consistent with FAR 52.219-9, other formats of a subcontracting plan may be acceptable. However, failure to include the essential information as exemplified in this model may cause a delay in plan review and approval. The use of this model is not intended to waive other requirements that may be applicable under the Contract's Section I Clause entitled "FAR 52.219-9, Small Business Subcontracting Plan." "Subcontract," as used in this clause, means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the Contract or subcontract.

Contractor	Consolidated Nuclear Security, LLC
Address	5275 Westview Drive, Frederick, MD 21703-8306
Solicitation Number	DE-SOL-0001458
Item/Service	Management and Operation of the Y-12 National Security Complex and Pantex Plant and associated activities
Amount of Contract for Fiscal Year 2013	Estimated $1,300,000,000
Period of Contract Performance	FY12–FY22

Type of Plan (Check One)

_____ Individual Plan (All elements developed specifically for this Contract and applicable for the full term of this Contract.)

__X__ Master Plan (Goals developed for this Contract; all other elements standard; must be renewed every three years.) (See FAR 52.219-9(f)(1)-(3)).

_____ Commercial Plan (Contractor sells large quantities of off-the-shelf commercial items to many Government agencies. Plans/goals are negotiated by a lead agency on a company-wide basis rather than for individual Contracts. Plan effective only during the year for which it is approved. The Contractor must provide a copy of the lead agency approval). (See FAR 19.704(d) and 52.219-9(g)).

I. Goals

The Contractor shall submit annual subcontracting goals 60 days prior to the beginning of each fiscal year during the term of this Contract, or by such other date as authorized in writing by the Contracting Officer. Small business subcontracting goals for the consolidated contract should reflect a positive impact on local geographic areas affected by the consolidation. Except for the initial plan submitted with the proposal, this plan and accomplishments will be submitted through the eSRS System.

This submittal shall include goals for Small Business concern (SB), Veteran-owned Small Business concern (VOSB), Service-disabled Veteran-owned Small Business concern (SDVOSB), HUBZone Small Business concern (HubSB), Small Disadvantaged Business

concern (SDB), and Women-owned Small Business concern (WOSB), collectively referred to as "small business concerns". The goals will be negotiated once each fiscal year and will be set forth by letter as agreed to by the Contractor and Contracting Officer.

The proposed goals shall be based upon the estimated budget and commercial purchases, including those for Large Business concerns (LB), which will be derived from the current fiscal year budget. Goals may be changed within the first six months of each fiscal year by agreement between the Contracting Officer and the Contractor if there is a cancellation or an addition of program or project funding. Goals for the utilization of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors shall be submitted as follows unless otherwise required by the Contracting Officer.

The goals shall be expressed in both dollars and percentages for LB, SB, VOSB, SDVOSB, HubSB, SDB, and WOSB.

A. The following percentage goals (expressed in terms of a percentage of total planned subcontracting dollars) are applicable to the Contract period Year One.
   1. The total estimated dollar value of all planned subcontracting (to all types of business concerns) under this Contract is $ 400,000,000 (100%).
      a. LB Concerns. Total estimated dollar value and percent of planned subcontracting with large businesses (all business concerns classified as "other than small") (% of 1. above): $ 140,000,000 and 35 %.
      b. SB Concerns. Total estimated dollar value and percent of planned subcontracting with small businesses (include SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns) (% of 1. above): $ 260,000,000 and 65 %.
      c. VOSB Concerns. Total estimated dollar value and percent of planned subcontracting with veteran-owned small businesses (% of 1. above): $ 16,000,000 and 4 %. This amount is included in the amount shown under A.1.b, above, as a subset.
      d. SDVOSB Concerns. Total estimated dollar value and percent of planned subcontracting with service-disabled veteran-owned small businesses (% of 1. above): $ 12,000,000 and 3 %. This amount is included in the amount shown under A.1.b, above, as a subset.
      e. HubSB Concerns. Total estimated dollar value and percent of planned subcontracting with HUBZone small businesses (% of 1. above): $ 16,000,000 and 4 %. This amount is included in the amount shown under A.1.b, above, as a subset.
      f. SDB Concerns. Total estimated dollar value and percent of planned subcontracting with small disadvantaged businesses (% of 1. above): $ 40,000,000 and 10 %. This amount is included in the amount shown under A.1.b, above, as a subset.
      g. WOSB Concerns. Total estimated dollar value and percent of planned subcontracting with small women-owned businesses (% of 1. above): $ 40,000,000 and 10 %. This amount is included in the amount shown under A.1.b, above, as a subset.

B. A description of all the types of products and/or services that will be acquired under this Contract is necessary to determine how the subcontracted dollars are to be spent.
   1. The following principal products and/or services will be subcontracted under this Contract, and the types of businesses supplying them are as follows:

Subcontracted Product/Service	Business Size							Subcontract %
	Other	SB	SDB	WOSB	HubSB	VOSB	SDVOSB	
A&E	■	■	■		■			2.0
Construction	■	■	■	■	■	■	■	10.0
Consultants	■	■	■	■				0.05
Equipment Maintenance/ Repair/ Calibration	■	■	■	■		■	■	0.5
General Commodities	■	■	■	■	■	■	■	25.0
General Services	■	■	■	■	■	■	■	30.0
Professional Services	■	■	■	■		■	■	35.0
Research and Development	■	■		■		■	■	0.5
Software Maintenance and Licensing	■	■	■	■	■	■	■	2.0
Training	■	■	■	■		■	■	0.1

2. Include a description of the method used to develop the subcontracting goals for SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns; i.e., explain the method and state the quantitative basis (in dollars) used to establish the percentage goals; how the areas to be subcontracted to SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns were determined; and how the capabilities of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB were determined. Include any source lists used in the determination process.

   To establish goals and commitments, we gathered available CNS information, forecasted probable acquisition needs, and analyzed project estimates. We used procurement historical data and experience to determine potential requirements and contingencies. Our subcontracting goals are both realistic and attainable. We will continually identify and review potential sources of supplies and services including, but not limited to, the following:

   a) Government Central Contractor Registration (CCR) Dynamic Small Business Search database (formerly PRO-Net)
   b) State and regional Small Business Administration (SBA) resources
   c) National Minority Purchasing Council Vendor Information Service
   d) Research and Information Division of the Minority Business Development Agency in the Department of Commerce
   e) Trade associations for SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns
   f) Sponsorship of and/or participation in various local, regional, and national SB trade fairs and conferences
   g) Membership in and coordination and cooperation with SB organizations, economic development organizations, and commercial and government organizations at the local, state, and national levels

3. Indirect cost have____ have not __X__ been included in the dollar and percentage subcontracting goals stated above. (Check one)
4. If indirect costs have been included, explain the method used to determine the proportionate share of such costs to be allocated as subcontracts to SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns.

II. Program Administrator

The subcontracting plan is to be administered by the Contractor to assure that the provisions of applicable law and the plan are implemented and performed. Any change in the name of the program administrator will be communicated without delay to the Contracting Officer by letter and will not require an immediate Contract modification. Such change(s), if any, will be included in the next applicable supplemental agreement Contract modification.

The name, title, position within the corporate structure, and duties and responsibilities of the employee who will administer the Contractor's subcontracting program.

Name: Darrell Graddy

Title: Mission Support Manager

Address: TBD

Telephone: TBD

Facsimile: TBD

E-mail: TBD

Duties: Has general overall responsibility for the Contractor's subcontracting program, i.e., developing, preparing, and executing individual subcontracting plans and monitoring performance relative to the requirements of this particular plan. The actual duties of how the administrator will carry out the requirements of this individual plan should be stated here.

These duties may include, but are not limited to, the following activities:

- Maintaining source lists of potential SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors
- Developing and maintaining bidders lists of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns from as many sources as possible
- Ensuring that procurement packages are structured to permit participation of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors to the maximum extent possible
- Ensuring inclusion of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors whose capabilities coincide with solicitation requiring their products or services
- Seeking other SB concerns when the number of prospective sources is not adequate by using mass media tools, such as Internet bulletin boards, Fed Biz Opps.
- Reviewing solicitations to identify and remove any statements, clauses, etc. which may restrict or prohibit participation of SB, VOSB, SDVOSB, HubSB, SDB, and WOSB subcontractors
- Ensuring that proper documentation is provided by the bid proposal team if an SB, VOSB, SDVOSB, HubSB, SDB, or WOSB subcontractor who provided a low bid is not selected
- Ensuring establishment and maintenance of records on solicitations and subcontract award activity
- Attending or arranging for attendance of the small business manager at business opportunity workshops, minority business enterprise seminars, trade fairs, etc.
- Monitoring achievements, keeping records, and measuring performance against established goals
- Preparing and submitting required semi-annual and annual subcontracting reports

- Coordinating contractors' activities prior to and during federal agency compliance reviews
- Mentoring SBs currently under subcontract and enhancing their ability to provide timely, cost-effective, and quality services
- Facilitating contact between SB suppliers and respective procurement and technical/ program personnel
- Advising and training project management personnel on the purposes of the Small Business Subcontracting Plan and fostering their support of the plan
- Attending SB training and monitoring program changes to ensure compliance at CNS
- Reviewing, revising, and amending applicable procedures and instructions
- Verifying that subcontracts contain the flowdown clauses pertaining to SB concerns, when required, and maintaining the policies and procedures required by the prime contract
- Reviewing and approving small business subcontracting plans submitted by large businesses, where applicable
- Verifying that lower-tier large business subcontractors submit small business subcontracting plans (when applicable) and the required semi-annual and annual subcontracting reports, and verifying compliance
- Establishing and maintaining contacts and communication with our parent organizations and networking with other SB program advocates within these organizations to support, implement, or enhance the CNS SB program
- Maintaining good working relationships with SBA representatives to obtain assistance and coordination in finding capable SBs
- Maintaining a close working relationship with NNSA to ensure that our project objectives and activities are consistent with NNSA programs
- Submitting monthly progress reports to NNSA reporting on small business utilization

III. Equitable Opportunities and Outreach Efforts

Describe efforts the offeror will make to ensure that SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns will have an equitable opportunity to compete for and secure subcontracts. These efforts may include, but are not limited to, the following activities:

A. CNS outreach efforts to obtain sources:

- Provide a full-time onsite small business program manager who will serve as a liaison among the SB community, internal acquisition personnel, and the client
- Plan solicitations (including time for preparation and development of SOW, quantities, specifications, and delivery schedules) to facilitate SB participation in subcontracting opportunities and solicitation, offer, and proposal activities
- Establish and maintain contacts with SB trade associations and business development organizations
- Attend SB, VOSB, SDVOSB, HubSB, SDB, and WOSB business procurement conferences and trade fairs
- Conduct external workshops, seminars, and training programs to ensure SBs are familiar with the requirements for doing business at CNS
- Maintain an elective outreach program by sponsoring and attending regional procurement conferences, trade fairs, and other functions to locate additional qualified sources
- Implement an ongoing "in-reach" program that provides SBs access and exposure to key project planners and managers

- Request sources from the SBA commercial market representative and access the CCR Dynamic Small Business search database when needed
- Utilize newspapers and magazine ads to encourage small business participation
- Develop a comprehensive source list of SB on-site service providers that includes past performance and is easily accessible and useful to acquisition personnel
- Select and qualify SB concerns to perform specific scopes of work
- Structure the program to help develop the capabilities and quality of services provided by SB suppliers and subcontractors under contract
- Use book references, catalogs, source lists, or other reference material to identify SB, VOSB, SDVOSB, HubSB, SDB, and WOSB sources before the acquisitions are placed

B. CNS's internal efforts to guide and encourage purchasing personnel:

- Conduct internal workshops, seminars, and training programs to ensure that internal customers and acquisition personnel are acquainted with the Small Business Subcontracting Plan, our policies, and prime contract requirements
- Establish, maintain, and use SB, VOSB, SDVOSB, HubSB, SDB, and WOSB source lists, guides, and other data for soliciting subcontracts
- Monitor activities to evaluate compliance with the subcontracting plan
- Issue letter from the President and General Manager to show support for the SB program and to encourage the use of small businesses
- Establish and maintain CNS's Small Business Policy

IV. Subcontracting Plan Flowdown

The Contractor agrees to include the Contract's Section I Clause entitled "FAR 52.219-8, Utilization of Small Business Concerns", in all subcontracts that offer further subcontracting opportunities. All subcontractors, except small business concerns, which receive subcontracts in excess of $650,000 ($1,500,000 for construction) must adopt and comply with a plan similar to the plan required by FAR 52.219-9, Small Business Subcontracting Plan, (FAR 19.704). The prime Contractor cannot alter this requirement.

V. Reports and Surveys

The Contractor gives assurance of:

A. Cooperation in any studies or surveys that may be required by the Contracting agency, or the U.S. Small Business Administration (SBA).

B. Submission of periodic reports, which show compliance with the subcontracting plan.

C. The Contractor shall submit the Individual Subcontracting Report (ISR) and Summary Subcontract Report (SSR) using the Government's Electronic Subcontract Reporting Systems (eSRS). The Contractor shall submit the ISRs and SSRs electronically to a single, Government wide system, which can be accessed at the following website: www.esrs.gov. The eSRS is a single reporting tool for all subcontracting plan accomplishments, will streamline the reporting process, and provide the Government with immediate access to the Contractor's subcontracting data. The Contractor shall be responsible for inputting accurate and complete reports into the eSRS. Contractor reporting of ISR and SSR accomplishments using the eSRS will commence upon receipt of written notification from the Contracting Officer's Representative.

D. Ensuring that large business subcontractors with subcontracting plans agree to submit ISRs and SSRs as determined necessary by the Contracting Officer to comply with DOE/NNSA internal procedures/practices.

Reporting Period	Report Due	Due Date
October 1–March 31	ISR	April 30
April 1–September 30	ISR	October 30
October 1–September 30	SSR	October 30

Submittals: Except for the initial plan submitted with the proposal, this plan and accomplishments will be submitted through the eSRS in accordance with FAR 19.704, FAR clause 52.219-9, and clause H-5 of the RFP.

VI. Records and Procedures

The following is a recitation of the types of records and procedures the Contractor will maintain to demonstrate compliance with the requirements and goals in the subcontracting plan. These records will include, but are not limited to the following:

A. If the Prime Contractor is not using CCR as its source for SB, VOSB, SDVOSB, HubSB, SDB, and WOSB concerns, list the names of guides and other data identifying such vendors;
B. Organizations contacted in an attempt to locate SB, VOSB, SDVOSB, HubSB, SDB, and WOSB sources;
C. On a Contract-by-Contract basis, records on each subcontract solicitation resulting in an award of more than $150,000 indicating whether SB, VOSB, SDVOSB, SDB, and WOSB concerns were solicited, and if not, why not; and if applicable, the reason that the award was not made to a small business concern;
D. Records to support other outreach efforts, e.g., contacts with minority and small business trade associations, attendance at small and minority business procurement conferences and trade fairs;
E. Records to support internal guidance and encouragement provided to buyers through (1) workshops, seminars, training programs, incentive awards; and (2) monitoring of activities subcontract award data including the name, address, and business size of each subcontractor (this item is not required on a Contract-by-Contract basis for company or division-wide commercial plans);
F. On a Contract-by-Contract basis, records to support subcontract award data including the name, address, and the business size of each subcontractor (this item is not required on a Contract-by-Contract basis for company or division-wide commercial plans); and
G. Additional Records

This subcontracting plan was submitted by:

Signed: [redacted]

Typed Name: Darrell Graddy

Title: Mission Support Manager

Date: March 9, 2012

Phone No.: TBD

PLAN CONCURRED ON BY: [redacted]

NNSA Small Business Program Manager

Date: 1-7-13

PLAN ACCEPTED BY: [redacted]

NNSA Contracting Officer

Date: 1-7-13

APPENDIX L.

RESERVED FOR POTENTIAL USE

[MOD 0344]

APPENDIX M.

INSTITUTIONAL COST REPORTING

Overview – The Office of Finance and Accounting implemented a new institutional cost reporting process in FY 12 that was piloted in FY 11 to replace the Functional Cost reporting process. The pilot effort was undertaken to improve the transparency of contractor institutional and functional costs. The DOE Office of Finance and Accounting requires Contractors to comply with this institutional cost reporting process.

Purpose – The purpose of the DOE/NNSA Institutional Cost Report is to provide transparency of DOE/NNSA Laboratory and Plant M&O costs. The reporting approach was designed with the following guiding principles in mind: (1) balance DOE/NNSA's requirements for cost information against what the contractor can efficiently provide; (2) use the contractor's existing accounting and cost classification system to extent possible; and, (3) align with standard government cost classification definitions.

General Guidelines – On a quarterly basis, the Contractor will provide the following information in support of this effort:

(1) Breakdown of original cost transaction by category

(2) Breakdown of overhead cost by functional category

(3) Labor-based allocations

(4) Overhead-based allocations

Definitions provide for reconciling original costs to STARS cost data. NNSA requires information annually for functional cost charged directly to programs, in addition to those functional costs that are a component of overhead allocations. The contractor shall submit data for labor and overhead based allocations at the level identified in the Funding Program by Subprogram tables in the President's Budget Request.

The Contractor shall use Excel templates provided and submit the files to the NNSA Field Chief Financial Officer (CFO) and through iPortal. The Contractor shall also provide necessary information to allow DOE/NNSA to have institutional cost reporting.

The definitions are provided below.

(1) ORIGINAL COST CATEGORY DEFINITIONS

Salaries – compensation paid by employer for employee's services, including: base salary, overtime, performance bonus, executive and incentive compensation. Cost for paid absences is part of base salary and is not treated as part of fringe for purposes of this reporting.

Fringe Benefits – Amounts paid by an employer (net of employee contributions) to provide employees with benefit coverage such as medical and dental insurance, retirement plans including savings plans, legally mandated employment related payment (e.g. social security, unemployment, workers comp, etc.), disability plans and other costs normally included in a fringe pool. Fringe cost is to be broken out by the following subcategories:

- Defined Benefit Pension Plan – Employer cost associated with a retirement plan where the employer makes contributions to a general fund and employee benefits are guaranteed based on a formula using factors such as earnings history and tenure of service[1].
- Defined Contribution Plan – Employer cost associated with retirement plan contributions paid into individual employee accounts. The funding is often in form of a specific percentage of employee contributions to the same account.
- Active Medical – employer cost related to providing medical, dental, vision and the like to its active employees.
- Legally Mandated – Medicare, social security, unemployment, workers comp and like payments required by federal, state or local government to be paid by the employer (include only employer share of the payment)
- Retiree Medical – Employer cost of plans similar to active medical but provided to retirees[2].
- Other Benefits – any other benefit provide to employees with cost covered by the employer (life insurance, disability, tuition refund, etc.)

Travel – Cost associated with business travel, including: airfare, lodging, meals, transportation / car rental, registration, and other travel related cost included on an employee expense report.

Procurements – Cost of purchasing goods or basic services. Break out cost by the following subcategories:

- Electricity
- Other Utilities (payments made to a utility provider for sewer, water, etc. Excludes phone, which is be reported under Other Procurements)
- Facility Leases
- Other Procurements (includes purchases and leases of equipment, etc)

[1] This amount should agree with amount reported in STARS for SGL 68000200, Employer Contributions to Contractor Defined Benefit Pension Plans.

[2] This amount should agree with amount reported in STARS for SGL 68000300, Employer Contributions to Contractor Post Retirement Defined Benefit Plans Other than Pensions.

Subcontracts – Cost incurred under a contract placed primarily to furnish professional services.

Management / Award / Incentive Fee – The base and/or incentive fee that is paid to a contractor and charged as cost to the contract. Such fees are often in whole or in part based on performance under the contract and to include shared savings incentive payments (tied to achieving cost reductions).

Taxes – Includes State and municipal taxes, as well as "payments in lieu of taxes." Does NOT include taxes that are payroll related (e.g. included in the "Fringe" category).

Other – Cost of operating an institution not identified in another Cost Element category. Provide details of cost reported in this category if amount is greater than 5% of the Total Original Cost.

ORIGINAL COST ELEMENT REPORTING FORMAT AND RECONCILIATION TO STARS

Contractors should use the format provided (Exhibit 1) to report original cost transactions and provide a reconciliation to total STARS cost. Provide fiscal year projections based on information generated during your planning process or, if no formal planning based budget exists, use an analysis of prior year trends to establish a projection. Projections may be updated quarterly if better information becomes available.

For reconciliation purposes, the STARS cost amount includes the following SGL balances:

61000000 – Operating Expenses/Program Costs

61009900 – Integrated Contractor Cost Overruns and Undistributed Costs

63300000 – Other Interest Expenses

80100100 – Cost of Work Performed Between DOE Entities

88020100 – Purchases of Capitalized PP&E

88030300 – Purchases of Funded Inventory

Reconciling items are to be categorized as follows:

Variance – Variances associated with the application and recovery of indirect rates vs. actual cost incurred.

Suspense / Undistributed – Undistributed cost relates to the suspense of accounting transactions when it is not practical to identify the ultimate account, or the ultimate account is known but it is not possible to resolve costing issues prior to financial processing deadlines. This balance must be zero at year-end.

Other – Use this line to identify other reconciling items that do not fit in the above categories.

(2) OVERHEAD COST BY CATEGORY

Overhead cost is identified as cost allocated through a cost pool, usually recovered via the application of a rate (e.g. dollar per unit, percentage of cost). An overhead cost can be an

allocation to either a final cost objective or an intermediate cost objective (recycled through other cost pools). Examples include: general & administrative, organizational burden, site services, allocation of space cost, etc.

Service Centers (e.g. a cost pool that is allocated using a rate based on type of service) can be allocated to either a direct cost objective or to another cost pool. Service center cost is reported to the extent it is allocated to an overhead pool (in the reporting category of the area receiving the service center charge).

There are two exceptions to this guideline: (1) service center cost that is a key element of operating the institution (e.g. utilities, space cost, etc.) regardless of materiality, and (2) service centers that allocate a major portion of their cost to overhead pools and the amount charged to overhead that represents more than 5% of total indirect cost. In these two cases the service center cost should be treated *entirely* as an overhead cost for the purposes of this reporting.

Total overhead cost to be reported should be based on the total of all allocations to final cost objectives that are from an overhead cost pool. Recycled overhead (e.g., overhead cost allocated to another overhead pool) will be washed out in the Organizational Management/ Other category. Overhead cost plus direct cost should be reconciled to total cost reported in STARS.

OVERHEAD COST CATEGORY DEFINITIONS

Report cost defined as overhead (per the general guidelines) in the following cost categories based on how it was classified when charged to the overhead pool.

Executive Direction – Includes costs normally associated with the highest level executive management (unless more appropriately associated with management of the other reporting categories). Examples of activities in this account are the Laboratory Director, President and other top level management and immediate staff (Secretary, Special Assistants, etc.), Science Advisors and Deputy Directors, Vice Presidents, etc. This category also includes institutional level strategic planning and the cost of contractor performance assurance. All other management/supervisor activities, including related incidental costs, should be reported in the most appropriate cost category other than Executive Direction.

Human Resources – Includes costs associated with recruiting, salary administration, equal employment opportunity and diversity programs, benefits administration, employee concerns programs, central training development (job specific training development curriculum should be included in the specific category to which it applies), industrial relations, personnel records, employee concerns programs/hotline, educational programs, providing for undergraduate and graduate course work and other personnel related services.

Chief Financial Officer – Includes costs associated with activities of a financial nature, such as general accounting, payroll, travel accounting, funds control, WFO administration, cost accounting, accounts payable, internal control programs (including A-123), financial systems management and non-project / program specific budget coordination and control, indirect rate planning/budgeting, and similar financial related activities.

Internal Audit – Cost of the Internal Audit function, including production / execution of annual audit plan and tracking of correction actions until closed.

Procurement / Acquisitions – Includes costs associated with contracting for goods and services, purchasing, P-Card program, electronic buying (B2B), contract administration, procurement program management and conducting compliance and cost/price analysis activities.

Legal – Includes costs associated with legal counsel support and litigation support. Includes outside legal support and ethics functions. Legal settlements should be classified as Other.

Central Administrative Support – Includes costs associated with food service, printing and graphic support, records management, mail service including postage, subcontracted delivery services, and all library-related activities.

Program / Project Planning & Control – Includes cost associated with support and execution of program / project budgeting, funding requests, baseline control and preparation, master scheduling, project management system administration, and baseline pricing and validation efforts.

Technology Transfer – Includes all cost associated with activities that encourage the further development of promising technologies, dissemination of information to appropriate researchers, organizations, industries, governmental bodies and other institutions; and other activities that assist in affecting the introduction of technologies in the marketplace.

Outreach Activities – Cost associated with media communication, public relations, educational programs, employee outreach program, stakeholder-related outreach, activities contributing to the development of the local/regional economy, and other information or outreach activities such as HBCU (Historically Black Colleges and Universities) and other University-related activities, including stakeholder agencies and Congressional liaison activities.

Business Development / Client Liaison – Cost of activities associated with familiarizing current or possible clients with capabilities offered and/or opportunities to fund work, assessment and planning for potential new business areas, client relationship management and liaison with clients.

Information Management – Cost associated with office automation (desktop software, video conferencing, collaboration, email, access management), network services (groups of computers that communicate with each other, share peripherals and access remote hosts or other networks), telecommunications (communication by electronic submission of impulses over telephone/optic lines including cell phones and voice over internet protocol), application and data hosting (providing central computer facilities, data backup and restore, data processing, and network file and printer services), and general business information system technology not specific to a single system. This category includes systems analysts/programmers; however, specific systems management and administrative costs for various business and scientific systems should be included in their respective cost categories. (Note: Dedicated scientific activities, experiments, analysis, etc., should be included in the appropriate category.)

Environmental – Includes costs associated with the development, implementation and maintenance of Laboratory systems for the compliant management of radioactive and hazardous waste; safe packaging and transportation of hazardous materials (non-waste); effluent controls and monitoring and surveillance; permitting; auditing and evaluation to assure compliance and

pollution prevention. These activities, performed on a routine basis, are necessary to maintain compliance with Federal, State and local regulations, as well as applicable DOE Orders and directives. This category does not include third party treatment or disposal costs which are charged direct to a project; it also does not include cleanup activities.

Safety & Health – Costs associated with safety and health programs, such as integrated safety management, emergency preparedness, fire protection, industrial hygiene, industrial safety, occupational medical services, nuclear safety, work smart programs, radiation protection, transportation safety (does not include traffic management functions – include this item in logistics) and related management oversight. These activities, performed on a routine basis, are necessary to maintain compliance with Federal, State, and local regulations, as well as applicable DOE Orders and directives.

Facilities Management & Operations – Cost associated with providing facilities and equipment including facility related services required in performance of the contract. Facilities management activities add to existing property, plant and equipment or extend the life of existing property, plant and equipment. This is distinct from maintenance activities which are reported in separate categories. Maintenance activities sustain existing property, plant and equipment in a usable condition and do not result in increasing capabilities of existing property, plant or equipment. Examples of activities in this category are: facilities remodeling, facilities utilization analysis, modification and upgrade analysis, facilities planning and condition determinations, and lease and rental of real property. Rents and leases of other than real property are included in the appropriate category. Facilities Management includes engineering activities such as HVAC systems, electrical mechanical activities, and repair and maintenance analysis if they extend the current useful life or result in improvements beyond existing capabilities. Major functions also included in this category are the cost of janitorial services, pest control and other services to keep these facilities usable.

Maintenance – Facilities – includes costs to perform activities that sustain or continue existing functionality of real property. These are *not* activities that increase functionality or extend useful life. Costs that increase functionality or that extends useful life are treated in accordance with the capital assets accounting requirements. Maintenance functions include supervision, planning and scheduling, and storage and staging of materials and supplies required for maintenance activities. All phases of maintenance are included: preventive, predictive and corrective maintenance.

Maintenance – General – includes costs to perform activities that sustain or continue existing functionality of all other property and equipment not included in facilities maintenance. These are not activities that increase functionality or extend useful life. Costs that increase functionality or that extend useful life are treated in accordance with the capital assets accounting requirements. Examples of functions included in this category are: maintenance on production and process equipment/machines; maintenance of roads and grounds; maintenance of utilities; calibration, care, repair and storage of equipment used in monitoring, or the actual performance of, maintenance work; and planning and scheduling, and storage and staging of materials and supplies required for maintenance activities.

Utilities – Costs include utility-related engineering, operating utility (heat, electrical, water, etc.) plants and equipment, contract services for fuel, water treatment chemicals, or support needed to provide electric power, heat, steam, chilled water, potable water, process gases and sanitary waste disposal to support business and research. This element includes all costs associated with contract services in support of utilities, such as fuel, water treatment chemicals and control systems (also include energy management related activities).

Safeguards & Security – Includes all overhead funded costs of a central program associated with the development and implementation of a Safeguards and Security Program to protect nuclear materials, nuclear weapons, classified information and government property from theft, sabotage, espionage, or other acts that may cause adverse impacts on national security or to the safety of the public and employees. Excludes requirements which are funded by the S&S direct program and overhead cost that is embedded in other functional categories such as organizational management. Also excludes the allocable share of direct funded site S&S expenses funded from the tax applied to WFO and reported in the *WFO Funded Safeguards and Security* category. Cost *excludes* Cyber Security which is reported separately. Note that this category will be eliminated in FY12 when all S&S cost must be charged direct.

WFO Funded Safeguards and Security – Includes the allocable share of direct funded site S&S expenses recovered through taxes applied to WFO orders in accordance with FY 2012 budget guidance. This does not include any marginal S&S costs incurred to support the projects of individual WFO customers – these are reported as a direct WFO cost.

Cyber Security – Cost charged to overhead for core Cyber related program activities, including: operation of unclassified networks, establishing and maintaining institutional level controls to prevent unauthorized access; purchasing and maintaining institution wide software for protection against malware, viruses and the like; and routine monitoring of network traffic to identify and isolate threats including cyber analytics. Additionally, based on the manner that the system or process is being charged, costs could include implementing corrective actions, activities conducted by line personnel, and operation of unclassified networks. Excludes overhead cost that is embedded in other functional categories such as organizational management.

Logistics Support – Costs associated with shipping, receiving, transportation (excluding maintenance which is included in the Maintenance category), warehousing, motor pools, office equipment pools, property management and excessing activities; routine inventory write-offs and other logistic support activities.

Quality Assurance – Costs associated with all quality assurance, reliability and regulatory activities associated with nuclear, construction, research, management, and software functions. Included in this category are costs associated with PAAA/DRCP compliance, quality engineering and inspection services, quality assurance audits, occurrence reporting (such as the Occurrence Reporting and Processing System), development of quality program plans, operational readiness review coordination and other activities related to ensuring the quality assurance of site operations and facilities. This does not include costs incurred for weapons stockpile certification.

Management / Award / Incentive Fee – The based and/or incentive fee that is paid to a contractor and charged as cost to the contract. Such fees are often in whole or in part based on performance under the contract and to include shared savings incentive payments (tied to achieving cost reductions).

Taxes – Includes State and municipal taxes, as well as "payments in lieu of taxes." Does NOT include taxes that are payroll related.

LDRD – LDRD portion reflects costs incurred in accordance with DOE Order 413.2A for the purpose of pursuing new and innovative scientific concepts of benefit to the DOE. Excludes

allocation of overhead other than organizational burdens. This would include PDRD and SDRD reflecting costs incurred in accordance with the legislative authority for these activities.

IGPP / IGPE – Institutional General Plant Projects (IGPP) / Institutional General Purpose Equipment (IGPE):

IGPP projects are overhead funded minor new construction projects of a general nature, the total cost of which may not exceed the congressionally established line item limit. This category should include all capital construction that is not direct funded. Institutional General Purpose Equipment (IGPE) is overhead funded capital equipment that is required for Laboratory wide needs. IGPE is administrative in nature, i.e. not research equipment, of a general use or institutional nature that benefits multiple cost objectives. Each contractor should report cost following their DOE approved policies for IGPP/IGPE.

Organizational Management / Other – Report all other overhead cost which is *not* identified in another cost category. This includes general organizational management activities (e.g., organizational burden pools). The amount reported in this category washes out recycled overhead (e.g., overhead cost allocated to another overhead pool). Generally the amount reported in this category will be determined by total overhead cost (based on all allocations to final cost objectives that are from an overhead cost pools) less the amounts reported in all other cost categories. The resultant amount should be evaluated for reasonableness by comparing the calculated amount to organizational burden allocated to final cost objectives plus other miscellaneous overhead cost minus recycled overhead (overhead allocated to other overhead pools). Provide details of cost reported in this category if amount is greater than 25% of the Total Overhead Cost.

OVERHEAD COST REPORTING FORMAT AND RECONCILIATION TO STARS

Format (Exhibit 2) should be used to report overhead cost by functional category and provide a reconciliation to total STARS cost. Provide fiscal year projections based on information generated during your planning process or, if no formal planning based budget exists, use an analysis of prior year trends to establish a projection. Projections may be updated quarterly if better information becomes available.

Reconciling items are to be categorized as follows:

Direct Cost – Cost charged direct to project (final cost objective), such as Direct Material, Direct, Labor, and Other Direct Cost, and is not the result of the application of an indirect rate. This cost will be net of any lab level service activity reported in total as overheads.

Variance Suspense / Undistributed – Variances associated with the application and recovery of indirect rates vs. actual cost incurred. Undistributed cost relates to the suspense of accounting transactions when it is not practical to identify the ultimate account, or the ultimate account is known but it is not possible to resolve costing issues prior to financial processing deadlines. This account must be zero at year-end.

Other – Use this line to identify other reconciling items that do not fit in the above categories.

(3 & 4) DISTRIBUTION TABLES: LABOR AND OVERHEAD ALLOCATIONS

To allow DOE the ability to allocate cost by high level program, either in total or by category, contractors will provide two allocations tables (reference Exhibits 3 & 4) reflecting the percentage of total cost to final cost objective summarized by DOE Fin Plan (at the two digit BNR level), DHS, Other DOE, and all other WFO.

(1) Labor – percentage of total direct labor charged to final cost objectives summarized by DOE, DHS, Other DOE, and WFO. DOE Fin Plan should be reported at the two digit BNR level. Allocations should reflect all amounts categorized as labor (to include salaries and benefits), whether it is based on actual salary rates or average labor rates. Note: This approach ignores labor charged to overhead and service center pools as it cannot easily be tracked back to final cost objectives. This data will be used to allocate benefit costs (e.g., fringe), in total and/or by element. If labor cost is not an accurate representation of how benefit cost is allocated then please use fringe only data or other more accurate representation if it is available

(2) Overheads – percentage of total overhead cost from all pools defined as overhead as allocated to final cost objectives summarized by DOE Fin Plan (at two digit BNR level), DHS, Other DOE, and WFO. Refer to definition of overhead cost provided Overhead Cost by Category section. Do NOT include service centers in the allocation base for the purpose of allocations. This data will be used to allocate overhead costs, in total and/or by element. If this is not an accurate representation of how overhead cost is allocated then use a more accurate representation if it is available.

SECTION J

APPENDIX N

March 2025

LIST OF APPLICABLE DIRECTIVES

[MODs 0015, 0034, 0045, 0094, 0101, 0111, 0117, 0140, 0151, 0166, 0171, 0178, 0189, 0209, 0210, 0221, 0229, 0241, 0262, 0273, 0285, 0303, 0320 ,0331, and 0351]

In addition to the list of applicable directives referenced below, the contractor shall also comply with supplementary directives (e.g., manuals), which are invoked by a Contractor Requirements Document (CRD) attached to a directive referenced below.

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
AL 56XB	Development and Production Manual		
ASME NQA-1 2008, 2009 Addenda, 1b 2011	Quality Assurance Requirements for Nuclear Facility Application		
Baseline Security Procedure for NNSA SAP (Applies to Y-12 Only)	Baseline Security Procedure for NNSA SAP		
CJCSI 3260.01F	Joint Policy Governing Positive Control Material and Coded Control Devices	0221	Effective 1/12/21
DOE-DTRA TP 50-2	Procedures for the Use and Control of Logistics Material for Permissive Action Link (PAL) Equipped Weapons (U)	0178	Effective 6/27/19 Document version dated 9/27/18
DoD TB 700-2	DoD Ammunition and Explosives Hazard Classification Procedures	0015	Effective 7/2/14*
DOE O 140.1A	Interface with the Defense Nuclear Facilities Safety Board (DNFSB)	0210	Effective 8/15/20
DOE O 142.2A Chg 1 (AdminChg)	Voluntary Offer Safeguards Agreement and Additional Protocol with the IAEA	0015	Effective 7/2/14*
DOE M 142.2-1 Chg 1 (AdminChg)	Manual for Implementation of the Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency	0015	Effective 7/2/14*
DOE O 142.3B, Chg 1 (LtdChg)	Unclassified Foreign National Access Program	0273	Effective 10/12/22
DOE O 150.1B	Continuity Programs	0262	Effective 5/3/22 Contingent upon approved Implementation Plan
DOE O 151.1D Chg 1 (MinChg)	Comprehensive Emergency Management System	0189	Effective 11/13/19
DOE O 153.1A	Departmental Nuclear Emergency Support Team Capabilities	0285	Effective 3/28/23
DOE O 200.1A Chg 2 (LtdChg)	Information Technology Management	0320	Effective 10/16/23 Contingent upon approved Implementation Plan

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
DOE O 205.1C, Chg 1 (LtdChg)	Department of Energy Cyber Security Program	0273	Effective 8/11/22
DOE O 206.1 Chg 1 (MinChg)	DOE Privacy Program	0166	Effective 1/3/19 Supplemental Guidance on Response and Notification Procedures for Data Breaches Involving Personally Identifiable Information dated 10/16/17 Effective 8/30/18
DOE O 206.2, Chg 1 (LtdChg)	Identity, Credential, and Access Management (ICAM)	0273	Effective 11/5/22
DOE O 210.2A	DOE Corporate Operating Experience Program		
DOE O 221.1B	Reporting Fraud, Waste and Abuse to Office of Inspector General	0094	Effective 1/12/17
DOE O 221.2A	Cooperation with the Office of Inspector General		
DOE O 225.1B	Accident Investigations		
DOE O 226.1B Chg 1 (AdminChg)	Implementation of Department of Energy Oversight Policy	0285	Effective 2/22/23
DOE O 227.1A Chg 1 (AdminChg)	Independent Oversight Program	0273	Effective 10/8/22
DOE O 231.1B Chg 1 (AdminChg)	Environment, Safety and Health Reporting	0015	Effective 7/2/14*
DOE O 232.2A Chg 1 (MinChg)	Occurrence Reporting and Processing of Operations Information	0189	Effective 11/14/19
DOE O 241.1B Chg. 1 (AdminChg)	Scientific and Technical Information Management	0094	Effective 5/24/16
DOE O 243.1C	Records Management Program	0262	Effective 3/15/22
DOE O 252.1A Chg 2 (AdminChg)	Technical Standards Program	0351	Effective 10/31/24
DOE O 341.1A	Federal Employee Health Services		
DOE O 410.2 Chg 1 (AdminChg)	Management of Nuclear Materials	0015	Effective 7/2/14*
DOE O 411.2	Scientific Integrity	0101	Effective 3/22/17
DOE O 412.1A Chg 1 (AdminChg)	Work Authorization System	0034	Effective 1/13/15
DOE O 413.3B Chg 7 (LtdChg)	Program and Project Management for the Acquisition of Capital Assets	0303	Effective 9/23/23
DOE O 414.1D Chg 2 (LtdChg)	Quality Assurance	0210	Effective 10/23/20
DOE O 415.1 Chg 2 (MinChg)	Information Technology Project Management	0111	Effective 4/17/17
DOE O 420.1C Chg 3 (LtdChg)	Facility Safety	0189	Effective 12/19/19
DOE O 420.2D	Safety of Accelerators	0285	Effective 4/5/23
DOE G 420.1-1A	Nonreactor Nuclear Safety Design Guide for use with DOE O 420.1C Facility Safety	0015	Effective 7/2/14*
DOE O 422.1 Chg 4 (LtdChg)	Conduct of Operations	0262	Effective 3/18/22

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
DOE O 425.1E	Verification of Readiness to Start Up or Restart Nuclear Facilities	0351	Effective Effective 11/18/2024 Contingent upon approved Implementation Plan
DOE O 426.2AChg 1 (Admin Chg)	Personnel Selection, Training, Qualification and Certification Requirements for DOE Nuclear Facilities	0331	Effective 7/11/24 Contingent upon approved Implementation Plan for DOE O 426.2A
DOE O 433.1B Chg 1 (AdminChg)	Maintenance Management Program for DOE Nuclear Facilities	0015	Effective 7/2/14*
DOE O 435.1 Chg 2 (AdminChg)	Radioactive Waste Management	0229	Effective 2/26/21
DOE M 435.1-1 Chg 3 (LtdChg)	Radioactive Waste Management Manual	0229	Effective 3/11/21
DOE N 435.1	Contact-Handled and Remote-Handled Transuranic Waste Packaging		
DOE O 436.1A	Departmental Sustainability	0320	Effective 11/8/23 Contingent upon approved Implementation Plan
DOE O 437.1	Bridge and Tunnel Management	0229	Effective 3/10/21 Applies to Y-12 Only
DOE O 440.2C Chg 3 (LtdChg)	Aviation Management and Safety	0285	Effective 4/28/23
DOE M 441.1-1 Chg 1 (AdminChg)	Nuclear Material Packaging Manual	0094	Effective 3/22/16
DOE O 442.1B	Department of Energy Employee Concerns Program	0171	Effective 4/11/19
DOE O 442.2 Chg 1	Differing Professional Opinions for Technical Issues Involving Environmental, Safety, and Health Technical Concerns	0094	Effective 1/17/17
DOE O 443.1C, Chg 1 (LtdChg)	Protection of Human Research Subjects	0351	Effective 2/26/2025
DOE O 452.1F	Nuclear Explosive and Weapon Surety Program	0303	Effective 7/5/23 Applies to Pantex Only
DOE O 452.2F	Nuclear Explosive Safety	0241	Effective 12/3/20
DOE O 452.3	Management of DOE Nuclear Weapons Complex		
DOE O 452.7 Chg 1 (AdminChg)	Protection of Use Control Vulnerabilities and Designs	0210	Effective 7/11/20
DOE O 452.8	Control of Nuclear Weapon Data		
DOE O 457.1A	Nuclear Counterterrorism	0015	Effective 7/2/14*
DOE O 458.1 Chg 4 (LtdChg)	Radiation Protection of the Public and the Environment	0210	Effective 10/23/20
DOE O 460.1D Chg 1 (LtdChg)	Hazardous Materials Packaging and Transportation Safety	0262	Effective 7/16/22
DOE O 460.2B	Departmental Materials Transportation Management	0273	Effective 9/19/22
DOE O 461.1C Chg 1 (MinChg)	Packaging and Transportation for Offsite Shipment of Materials of National Security Interest	0221	Effective 12/9/20
DOE O 461.2	Onsite Packaging and Transfer of Materials of National Security Interest		

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
DOE O 462.1 Chg 1 (AdminChg)	Import and Export of Category 1 and 2 Radioactive Sources and Aggregate Quantities	0015	Effective 7/2/14*
DOE O 470.3C Chg 2 (LtdChg)	Design Basis Threat (DBT)	0331	Effective 6/14/24 Contingent upon approved Implementation Plan
DOE O 470.4B Chg 3 (LtdChg)	Safeguards and Security Program	0241	Effective 11/4/21
DOE O 470.5	Insider Threat Program	0034	Effective 1/6/15
DOE O 470.6 Chg 1 (MinChg)	Technical Security Program	0140	Effective 5/15/18
DOE O 471.1B	Identification and Protection of Unclassified Controlled Nuclear Information		
DOE O 471.5	Special Access Programs		
DOE O 471.6 Chg 4 (LtdChg)	Information Security	0303	Effective 9/28/23
DOE O 471.7	Controlled Unclassified Information	0262	Effective TBD Revised IA/IP resubmitted 3/16/23 Contingent upon approved Implementation Plan
DOE O 472.2A Chg 1 (LtgChg)	Personnel Security	0351	Effective 12/18/24
DOE O 473.1A	Physical Protection Program	0262	Effective 4/21/22 Contingent upon approved Implementation Plan
DOE O 473.2A	Protective Force Operations	0262	Effective 3/17/22
DOE O 474.2A Chg 1 (Admin Chg)	Nuclear Material Control and Accountability	0331	Effective 6/7/24 Contingent upon approved Implementation Plan
DOE O 475.1	Counterintelligence Program		
DOE O 475.2B	Identifying Classified Information	0045	Effective 5/29/15
DOE O 483.1B Chg 3 (MinChg)	DOE Cooperative Research and Development Agreements	0351	Effective 1/20/2025 Contingent upon approved Implementation Plan
DOE O 484.1 Chg 4 (LtdChg)	Reimbursable Work for the Department of Homeland Security	0351	Effective 1/23/2025
DOE O 486.1A	Foreign Government Sponsored or Affiliated Activities	0221	Effective 9/29/20
DOE O 520.1B Chg 1 (LtdChg)	Financial Management and Chief Financial Officer Responsibilities	0285	Effective 1/11/23
DOE O 522.1A	Pricing of Departmental Materials and Services	0166	Effective 10/26/18
DOE O 544.1A	Priorities and Allocations Program	0320	Effective 3/24/24
DOE O 550.1 Chg 1 (LtdChg)	Official Travel	0210	Effective 1/14/20 Subject to the understandings set forth in letter dated 2/18/20
DOE O 5639.8A	Security of Foreign Intelligence Information and Sensitive Compartmented Information Facilities		

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
DOE-STD-1020-2016	DOE Standard – Natural Phenomena Hazards Analysis and Design Criteria for DOE Facilities	0117	Effective 8/24/17
DOE-STD-1027-2018 Chg Notice 1	DOE Standard – Hazard Categorization of DOE Nuclear Facilities	0171	Effective 3/4/19
DOE-STD-1066-2023	DOE Standard – Fire Protection	0320	Effective 2/9/24
DOE-STD-1070-1994 (Reaffirmed July 2014)	DOE Standard – Guidelines for Evaluation of Nuclear Facility Training Programs	0034	Effective 1/15/15
DOE-STD-1073-2016	DOE Standard – Configuration Management	0117	Effective 7/26/17
DOE-STD-1090-2020	DOE Standard – Hoisting and Rigging	0210	Effective 9/8/20
DOE-STD-1186-2004	DOE Standard – Specific Administrative Controls	0117	Effective 8/31/17 Existing nuclear facilities that are subject to DOE-STD-3009-94 (Change Notice 3) may utilize DOE-STD-1186-2004 or DOE-STD-1186-2016 for revisions to or extension of applicability of existing SACs.
DOE-STD-1186-2016	DOE Standard- Specific Administrative Controls	0117	Effective 8/31/17 Use DOE-STD-1186-2016 for the creation of new SACs on projects or upgrades initiated after 1/1/18. DOE-STD-1186-2016 must be utilized with all DSAs that invoke DOE-STD-3009-2014.
DOE-STD-1189-2016	DOE Standard – Integration of Safety into the Design Process	0117	Effective 7/25/17
DOE-STD-1195-2011	DOE Standard –Design of Safety Significant Safety Instrumented Systems Used at DOE Nonreactor Nuclear Facilities	0015	Effective 7/2/14*
DOE-STD-1212-2019	DOE Standard – Explosives Safety	0210	Effective 8/31/20
DOE-STD-1225-2017	DOE Standard – DOE Canine Performance Testing Protocol Standard (OUO)	0140	Effective 3/14/18
DOE STD 1269-2022	Air Cleaning Systems in DOE Nuclear Facilities	0351	Effective 10/25/2024
DOE-STD-3007-2017	DOE Standard –Preparing Criticality Safety Evaluations at Department of Energy Nonreactor Nuclear Facilities	0140	Effective 3/8/18

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
DOE-STD-3009-94	DOE Standard – Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Documented Safety Analysis	0015	Effective 7/2/14* Effective 5/11/17 (Mod 0111) Applies to existing facilities except where DOE-STD-3009-2014 applies. Effective 2/3/22 (Mod 0262) See subsequent CO direction from Teresa Robbins and Justin Higdon to Colby Yeary, dated 10/6/21 Effective 7/3/24 Contingent upon approved Implementation Plan (Mod 0331) See subsequent CO approval/direction from Katherine Hernandez to Amber Bullard, dated 7/3/24 related to adherence with DOE-STD-3009-94, Chemical Decomposition in Fire Scenarios and Reactive Material Updates
DOE-STD-3009-2014	DOE Standard – Preparation of Nonreactor Nuclear Facility Documented Safety Analysis	0111	Effective 5/11/17 Applies to new non-reactor nuclear facilities and major modifications to existing non-reactor nuclear facilities (initiated after the effective date) per DOE O 420.1C.
DOE-STD-3013-2018	Stabilization, Packaging and Storage of Plutonium-Bearing Materials	0171	Effective 3/11/19
DOE-NA-STD-3016-2023	DOE Limited Standard – Hazard Analysis Reports for Nuclear Explosive Operations	0303	Effective 9/13/2023 Applies to Pantex Only
DOE-STD-3020-2015	DOE Standard – Specification for HEPA Filters Used by DOE Contractors	0101	Effective 2/6/17
DOE-STD-3024-2011	DOE Standard – Content of System Design Descriptions	0015	Effective 7/2/14*
DOE-STD-3025-2007	DOE Standard – Quality Assurance Inspection and Testing of HEPA Filters	0015	Effective 7/2/14*
DOE Technical Manual DOE-SNL-TYPEBARG-REV3-CHNG0	Tiedown Procedures for Type-A, Type-B, ARG, and Miscellaneous Containers Transported in Safeguards Transporter	0140	Effective 4/24/18
EP-401075 Issue E	Electrical Testers for Nuclear Explosives	0189	Effective 1/22/20
Executive Order (EO) 11514 as amended by EO 11991	Protection and Enhancement of Environmental Quality	0221	Effective 7/2/14* Added amended EO to Reference Document
Executive Order 11988	Floodplain Management	0015	Effective 7/2/14*
Executive Order 11990	Protection of Wetlands	0015	Effective 7/2/14*
Executive Order 12333	U. S. Intelligence Activities	0015	Effective 7/2/14*
Executive Order 12898	Environmental Justice	0015	Effective 7/2/14*
Executive Order 13186	Responsibilities of Federal Agencies to Protect Migratory Birds	0015	Effective 7/2/14*
Executive Order 13513	Federal Leadership on Reducing Text Messaging While Driving	0015	Effective 7/2/14*
Executive Order 13556	Controlled Unclassified Information		

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
Joint DOE/DoD Technical Publication 45-51B	Transportation of Nuclear Weapons Material	0034	Effective 5/28/15 (Reference Document Change)
NFPA Codes and Standards	NFPA Codes and Standards		
NHPA CRMP (April 2004)	Pantex Plant Cultural Resource Management Plan	0094	Effective 5/29/15
NNSA ACD – 401.1A	Updating Weapon Quality Policy and Process Requirements Definition for Conditional Products and their Use in Weapons and Weapon-Related Assemblies	0331	Effective 5/30/24
NNSA ACD – 401.2	Updated Weapon Quality Assurance Procurement Requirements in NNSA Policy (NAP) 401.1A, Weapon Quality Policy	0331	Effective 5/30/24
NNSA Policy Letter: NAP 121.1A	Enterprise-Wide Strategic Planning	0241	Effective 6/9/21
NNSA Policy Letter: NAP 401.1A Chg 3 (AdminChg) (formerly NAP-24A)	Weapon Quality Policy	0331	Effective 5/30/24 (Converted to new directives numbering system in accordance with NNSA SD 251.1A, Directives Management)
NNSA Policy Letter: NAP 476.1 Admin Chg 1 (formerly NAP-23 Admin Chg 1)	Atomic Energy Act Control of Import and Export Activities	0189	Effective 5/26/15 Effective 1/22/20 (Converted to new directives numbering system in accordance with NNSA SD 251.1A, Directives Management)
NNSA Policy Letter: NAP 520.1 Admin Chg 1 (formerly NAP-25 Admin Chg 1)	Management and Operating Contractor Business Meals and Light Refreshments	0189	Effective 7/2/14* Effective 1/22/20 (Converted to new directives numbering system in accordance with NNSA SD 251.1A, Directives Management)
NNSA Policy Letter: NAP 540.2 (formerly NAP-31)	NNSA M&O Off-Site Extended Duty Assignments	0189	Effective 1/18/17 DOE AL 2018-08 Effective 7/12/18 Effective 1/22/20 (Converted to new directives numbering system in accordance with NNSA SD 251.1A, Directives Management)
NNSA Policy Letter: NAP-220.1	Internal Affairs Program	0151	Effective 7/26/18
NNSA Policy Letter: NAP-412.1	Financial Integration	0171	Effective 6/11/19
NNSA Policy Letter: NAP-413.1 (recertified)	Data Collection for Cost Estimating	0273	Effective 11/17/22
NNSA Policy Letter: NAP-435.1	Classified Matter High-Risk Personal Property Disposition at the Nevada National Security Site	0331	Effective 7/22/24
NNSA Policy Letter: NAP 470.1	Enhanced Compensatory Control Measures	0320	Effective 1/3/24
NNSA Policy Letter: NAP 530.1	Cost Allocation Optimization	0303	Effective 8/31/23
NPO Procedure – NPO-SD 3.4.3 (Applies to Pantex Only)	Conducting Readiness Reviews of Hazardous Non-Nuclear Facilities and Activities	0015	Effective 7/2/14*

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
Quality Plan No. 100-1 Amendment 4	Application of Quality Requirements to UK and US Procurement Contracts and Loan Authorizations for Research, Design & Development	0221	Revised name of Reference Document and Title
NNSA Supplemental Directive – NNSA SD 200.1	Information Resources Management	0320	Effective 2/15/24 Contingent upon approved Implementation Plan for DOE O 200.1A, Chg 2
NNSA Supplemental Directive – NNSA SD 205.1	Baseline Cybersecurity Program	0178	Effective TBD – date of IA Approval4/19/18 Applicable Binding Operational Directives (BOD) ED 19-01 (Effective 8/19/19) BOD 19-02 (Effective 8/19/19) BOD 18-02 (Effective 8/19/19) BOD 18-01 (Effective 8/19/19) BOD 17-01 (Effective 8/19/19) BOD 16-03 (Effective 8/19/19) BOD 16-02 (Effective 8/19/19)
NNSA Supplemental Directive – NNSA SD 206.1A	Privacy Program	0320	Effective 2/26/24 Contingent upon approved Implementation Plan
NNSA Supplemental Directive NNSA SD 206.2	Implementation of Personal Identity Verification for Uncleared Contractors	0151	Effective 7/12/18
NNSA Supplemental Directive – NNSA SD 226.1C	NNSA Site Governance	0189	Effective 12/11/19
NNSA Supplemental Directive – NNSA SD 251.1B	Directives Management	0221	Effective 1/12/21
NNSA Supplemental Directive – NA SD 350.1A	Management and Operating Contractor Service Credit Recognition	0351	Effective 10/17/24 Contingent upon approved Implementation Plan
NNSA Supplemental Directive – NNSA SD 413.3-7	Project Management for Non-Nuclear, Non-Complex Capital Asset Acquisition	0320	Effective 12/6/23 Contingent upon approved Implementation Plan
NNSA Supplemental Directive – NNSA SD 415.1A	Project Oversight for Information Technology (PO-IT)	0241	Effective 7/8/21
NNSA Supplemental Directive – NNSA SD 430.1	Real Property Asset Management	0101	Effective 3/29/17
NNSA Supplemental Directive – NNSA SD 452.2B	Nuclear Explosive Safety Evaluation Processes	0262	Effective 3/17/22
NNSA Supplemental Directive - NNSA SD 452.3-1A	Defense Programs Business Process System (DPBPS)	0094	Effective 7/5/16 See Requirements Management System (RMS) on the Pantex Plant Intranet as needed
NNSA Supplemental Directive – NNSA SD 452.3-2	Phase 6.X Process	0111	Effective 4/26/17
NNSA Supplemental Directive – NNSA SD 452.4-1	Nuclear Enterprise Assurance (NEA)	0262	Effective 5/26/22

Reference Document	Title	Mod	Effective Date (Contracting Officer Direction Date) and Relevant Notes
NNSA Supplemental Directive - NNSA SD 470.4-2 Admin Chg 1	Enterprise Safeguards and Security Planning and Analysis Program	0241	Effective 8/12/21 Effective 5/28/20 NNSA Supplemental Directive (SD) 470.4-2 Implementation Instructions (II) dated April 22, 2020
NNSA SD 470.6 Technical Security Program	Technical Security Program	0273	Effective 10/26/22 Contingent upon approved Implementation Plan
NNSA Supplemental Directive – NNSA SD 471.6	Operations Security Program	0241	Effective 5/14/20
NNSA Supplemental Directive – NNSA SD 473.3	Enterprise Mission Essential Task List-based Protective Force Training Program	0034	Effective 3/31/15
ORR PCB FFCA	Oak Ridge Reservation Polychlorinated Biphenyl Federal Facilities Compliance Agreement		
PSLM	Primary Standards Lab Memo		
Technical Business Practices (TBP) and Infrastructure Business Practices (IBPs)	Technical Business Practices (TBP) and Infrastructure Business Practices (IBPs)	0094	For additional implementing information on TBPs & IBPs See Requirements Management System on the Pantex Plant Intranet as needed
RM 257945	AL-R8 Pit Matrix Requirements	0015	Effective 7/2/14*

* Modification No. 0015 incorporated revised Appendix N, List of Applicable Directives, in accordance with Contracting Officer direction dated July 2, 2014, entitled "*Contract Number DE-NA0001942, Submittal of Revised Implementation Plan for Applicable Directives.*"

LIST OF DELETED/CANCELLED DIRECTIVES

The table below reflects all requirements that have been deleted in modifications 0015, 0034, 0045, 0094, 0101, 0140, 0151, 0166, 0171, 0178, 0229, 0241, 0262, 0273, 0285, 0303, 0320, 0351.

Reference Document	Title	Mod	Notes
DOE O 130.1	Budget Formulation	0273	Deleted effective 8/17/22
DOE M 140.1-1B	Interface with the Defense Nuclear Facilities Safety Board	0151	Cancelled by DOE O 140.1 Effective 7/26/18
DOE M 205.1-3 Admin Chg 1	Telecommunications Security Manual	0171	Cancelled by DOE O 470.6 Deleted Effective 4/25/19 on approval of DOE O 470.6 Chg 1 Implementation Plan
DOE O 313.1	Management and Funding of the Department's Overseas Presence	0034	Deleted Effective 4/16/15
DOE O 325.2 Admin Chg 1	Position Management and Classification	0140	Cancelled by DOE N 251.119 Deleted Effective 1/18/18
DOE O 350.2B	Use of Management and Operating or Other Facility Management Contractor Employees for Services to DOE in the Washington, DC Area	0094	Cancelled by DOE N 251.115 (replaced by NAP 31 Effective 1/18/17)
DOE O 350.5	COVID Safety Protocols for Federal Contractors	0303	Cancelled by DOE N 251.124 Deleted Effective 9/13/2023
DOE O 413.1B	Internal Control Program	0229	Cancelled by DOE O 520.1B Deleted Effective 2/25/21
DOE O 430.1B Admin Chg 2	Real Property and Asset Management	0094	Deleted Effective 12/21/16
DOE M 440.1-1A	DOE Explosive Safety Manual	0015	Deleted Effective 9/12/14
DOE M 452.2-1A	Nuclear Explosive Safety Manual	0045	Cancelled by DOE Order 452.2E
DOE M 452.2-2 Chg 1	Nuclear Explosive Safety Evaluation Processes	0034	Cancelled by DOE NNSA SD 452.2
DOE O 452.4C	Security and Use Control of Nuclear Explosives and Nuclear Weapons	0351	Not Applicable to Y12
DOE M 457.1-1	Control of Improvised Nuclear Device Information	0015	Deleted Effective 9/12/14
DOE M 460.2-1A	Radioactive Material Transportation Practices Manual	0303	Cancelled by DOE O 460.2B Deleted Effective 9/19/22
DOE P 470.1A	Safeguards and Security Program	0015	Deleted Effective 9/12/14
DOE M 470.4-4A Chg 1	Information Security Manual (Section D-Technical Surveillance countermeasures only)	0171	Cancelled by DOE O 470.6 Deleted Effective 4/25/19 on approval of DOE O 470.6 Chg 1 Implementation Plan
DOE M 471.2-4	Technical Surveillance Countermeasures Manual (TSCM) (Classified Annex only)	0015	Cancelled by DOE M 470.4-4A Chg 1
DOE O 471.3 Admin Chg 1	Identifying and Protecting Official Use Only Information	0262	Cancelled by DOE 471.7 Deleted Effective 6/28/22

Reference Document	Title	Mod	Notes
DOE M 471.3-1 Admin Chg 1	Manual for Identifying and Protecting Official Use Only Information	0262	Cancelled by DOE 471.7 Deleted Effective 6/28/22
DOE O 473.3A Chg 1	Protection Program Operations	0262	Cancelled by DOE O 473.1A and DOE O 473.2A Deleted Effective 3/17/22
DOE M 483.1-1	DOE Cooperative Research and Developments Agreements Manual	0015	Deleted Effective 9/12/14
DOE M 481.1-1A Chg 1	Reimbursable Work for Non-Federal Sponsors Process Manual	0166	Cancelled by DOE O 481.1E Deleted Effective 1/30/19
DOE O 534.1B	Accounting	0229	Cancelled by DOE O 520.1B Deleted Effective 2/25/21
DOE O 544.1	Priorities and Allocations Program	0015	Deleted Effective 9/12/14
DOE O 551.1D Chg 2	Official Foreign Travel	0178	Cancelled by DOE O 550.1 Deleted Effective 9/24/19
DOE O 580.1A Admin Chg 1	Department of Energy Personal Property Management Program	0101	Cancelled by DOE N 251.118 Deleted Effective 2/16/17
DOE-HDBK-1092-2013	DOE Handbook – Electrical Safety	0140	Deleted Effective 5/2/18
DOE-STD-1135-1999	DOE Standard – Guidance for Nuclear Criticality Safety Engineer Training and Qualification	0034	Deleted (Duplicate and covered in DOE Order 420.1C)
DOE STD 3024-98	DOE Standard – Content of System Design Description	0015	Deleted Effective 9/12/14
DOE SNL TYPEBARG	Tie-down Procedure for Type A, B, ARG, and Miscellaneous Containers	0034	Language combined/revised last Mod (per Emory Hogan) See: "DOE Technical Manual"
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management	0094	Deleted effective 12/13/16 DEAR 970.5223.6 covered
Executive Order 13514	Federal Leadership in Environmental, Energy, and Economic Performance	0034	Deleted Duplicative requirement of DOE O 436.1
Executive Order 13526	Classified National Security Information	0034	Deleted Duplicative requirement to DOE Order 475.2A
NA-10 WQAPM	Weapon Quality Assurance Procedures Manual	0034	Cancelled by NNSA NAP 401.1A, Weapon Quality Policy Deleted Effective 12/11/23
NNSA ACD 470.6	Use of Mobile Devices within National Nuclear Security Administration Secure Spaces	0303	Cancelled by NNSA SD 470.6 Delete Effective 5/24/23
NNSA BOP 001.5	Management and Operating Contractor Employment Reporting	0094	Cancelled Effective 12/14/16
NNSA BOP 001.311	NNSA Budget Validation Process	0273	Deleted effective 8/17/22

Reference Document	Title	Mod	Notes
NNSA Supplemental Directive – NNSA SD G 1027 Admin Chg 1	Guidance on Using Release Fraction and Modern Dosimetric Information Consistently with DOE STD 1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports, Change Notice No. 1*	0241	Deleted Effective 9/13/21
BOP 003.08	Management and Operating Contractor Business Meals and Light Refreshment	0015	Deleted Effective 9/12/14
BOP 50.002	Value Management Policy	0015	Deleted Effective 9/12/14
BOP 50.003	Independent Project Review Policy	0015	Deleted Effective 9/12/14
NNSA BOP 413.1 Admin Chg (formerly BOP 06.01 Admin Chg 1)	Value Management (VM)	0273	Deleted effective 10/19/22
NNSA Policy Letter: NAP-14.1-C, Chapter VII	NNSA Baseline Cyber Security Program	0140	Cancelled by NNSA SD 205.1 Deleted Effective 4/19/18
NNSA Policy Letter: NAP-14.1-D	Baseline Cyber Security Program	0140	Cancelled by NNSA SD 205.1 Deleted Effective 4/19/18
NAP 14.2-C	NNSA Certification and Accreditation (C&A) Process for Information Systems	0015	Deleted Effective 9/12/14
NNSA Policy Letter: NAP-14.3-B	Transmission of Restricted Data over Secret Internet Protocol Router Network (SIPRNet)	0140	Cancelled by NNSA SD 205.1 Deleted Effective 4/19/18
NNSA Policy Letter: NAP-21	Transformational Governance and Oversight	0094	Cancelled by NNSA SD 226.1B
NAP-70.2	Physical Protection	0015	Deleted Effective 9/12/14
NAP-70.4	Information Security	0015	Deleted Effective 9/12/14
NAP-9A	Secon Implementation	0015	Deleted Effective 9/12/14
IBP-202	Record of Assembly and Disassembly	0015	Deleted Effective 9/12/14
IBP-401	Product Definition Exchange Process	0015	Deleted Effective 9/12/14
IBP-404	Engineering Authorization System	0015	Deleted Effective 9/12/14
Letter	Letter dated 6/2/2010 from Thomas D. D'Agostino to Theodore Sherry, Expert-Based Unreviewed Safety Question Determination Procedure	0015	Deleted Effective 9/12/14
NNSA Supplemental Directive – NA-SD 350.2 Rev 1	Use of M&O Contractor Employees for Service to the NNSA in the Washington DC Area	0094	Cancelled by NAP 31 Deleted Effective 1/18/17
QC-1 Revision 10	DOE/NNSA Weapon Quality Policy (QC-1)	0015	Deleted Effective 9/12/14
Site Specific CRD	Startup and Restart of Operations, Activities and Facilities	0015	Deleted Effective 9/12/14
Site Specific CRD	Directive Systems Process	0015	Deleted Effective 9/12/14
Standard Building Code	International Building Code	0015	Deleted Effective 9/12/14

Reference Document	Title	Mod	Notes
YSO-CRD-03-01 (Applies to Y-12 Only)	Startup and Restart of Operations, Activities, and Facilities at Y-12 including Safety Basis Document Implementation (Applicable until such time that decision on incorporating into NPO-SD3.4.3 is decided).	0101	Deleted Effective 3/9/17
YSO-CRD-09-01 (Applies to Y-12 Only)	Projects Contractor Requirements Document (CRD)	0140	Deleted Effective 3/22/18

(A) Implementation of applicable directives.

(1) The Contractor shall submit an implementation plan to the Contracting Officer when required by the directive or other instruction of the Contracting Officer and within 60 days of the effective date of the Contract or acceptance of the directive after the effective date of the Contract.

(2) The Contracting Officer will approve or disapprove the plan and notify the Contractor of the decision. If the Contracting Officer disapproves the plan, he/she shall clearly identify all deficiencies and provide reasonable suggestions for making the plan acceptable. Within 30 days after notification of the disapproval of a plan, the Contractor shall submit to the Contracting Officer the revised plan for approval as described above.

(3) During the process of implementation, the Contractor will notify the Contracting Officer if modifications to the plan are required for any reason. The Contracting Officer will consider all such requests and will not unreasonably withhold his/her approval to modify such plans when circumstances warrant modification.

End of Appendix -

APPENDIX O.

PROGRAM MANAGEMENT AND COST REPORTS

The Contractor shall submit periodic cost, schedule, and technical performance plans and reports in such form and substance as required by the Contracting Officer. Reference Section J, Appendix A, Statement of Work, Chapter I, 3.3. Cost reports shall include at a minimum:

1. Monthly submissions for:

    a. Specified cost elements including labor, material, other procurements, and travel.

    b. Indirect or overhead costs

    c. Schedule status information at the specified activity level

    d. Performance measurement information when relevant

    This data shall initially be submitted by the Contractor to NNSA as a supplemental report, but will become integrated into the DOE/NNSA Uniform Program Cost Reporting Structure (UPCRS). The UPCRS will transition the data from supplemental monthly reports to a submission to a Departmental system.

    The report shall be submitted at a level designated by the Contracting Officer. Initially the report shall be consistent with the guidance provided for Institutional Cost Reporting in Section J Appendix M. The Contractor shall have in place systems to expand the information provided to a designated level of a Program's Work Breakdown Structure (WBS).

    Monthly performance measurement provides information regarding budgeted cost versus actual cost, schedule performance against milestones and estimated cost at completion.

2. Annual submissions for:

    a. Spend plans

    b. Schedule plans

    c. Specifications of work scope activity

    This data shall initially be submitted by the Contractor to NNSA as a supplemental report, but will become integrated into designated reporting and budgeting systems. the DOE/NNSA UPCRS. The UPCRS will transition the data from supplemental monthly reports to a submission to a Departmental system.

The report shall be submitted at a level designated by the Contracting Officer. Initially the report shall be consistent with the Funding Program by Subprogram tables of President's budget submission or the accounting cost reporting level. The Contractor shall have in place systems to expand the information provided to a designated level of a Program's WBS.

While identified as annual submissions, to remain relevant, the Contractor shall update these plans based on changes to budget, work scope and schedule. The Contracting Officer, or designated authorized representatives, will provide the specific direction relevant to a Program's management strategy.

3. Ad-hoc submissions for:

   a. Program evaluation

   b. Cost estimating

   c. Budget validation

   The Contractor shall support these ad-hoc submissions by providing NNSA access to systems and personnel necessary to analyze and evaluate plans, programs, and budgets. NNSA will work with the Contractor to ensure that the costs of programs are presented accurately and completely. The Contractor shall support NNSA's evaluation of alternative technical strategies to ensure that programs and projects can be efficiently implemented.

The Contractor shall provide the Contracting Officer, or designated authorized representatives, access to information and documents comprising the Contractor's reporting system.

The Contractor shall include these reporting requirements in all subcontracts that are cost-reimbursement type of contracts when:

1. The value of the subcontract is greater than $2 million, unless specifically waived by the Contracting Officer, or

2. The Contracting Officer determines prior to award that the Contract/subcontract effort is, or involves, a critical task related to the Contract.

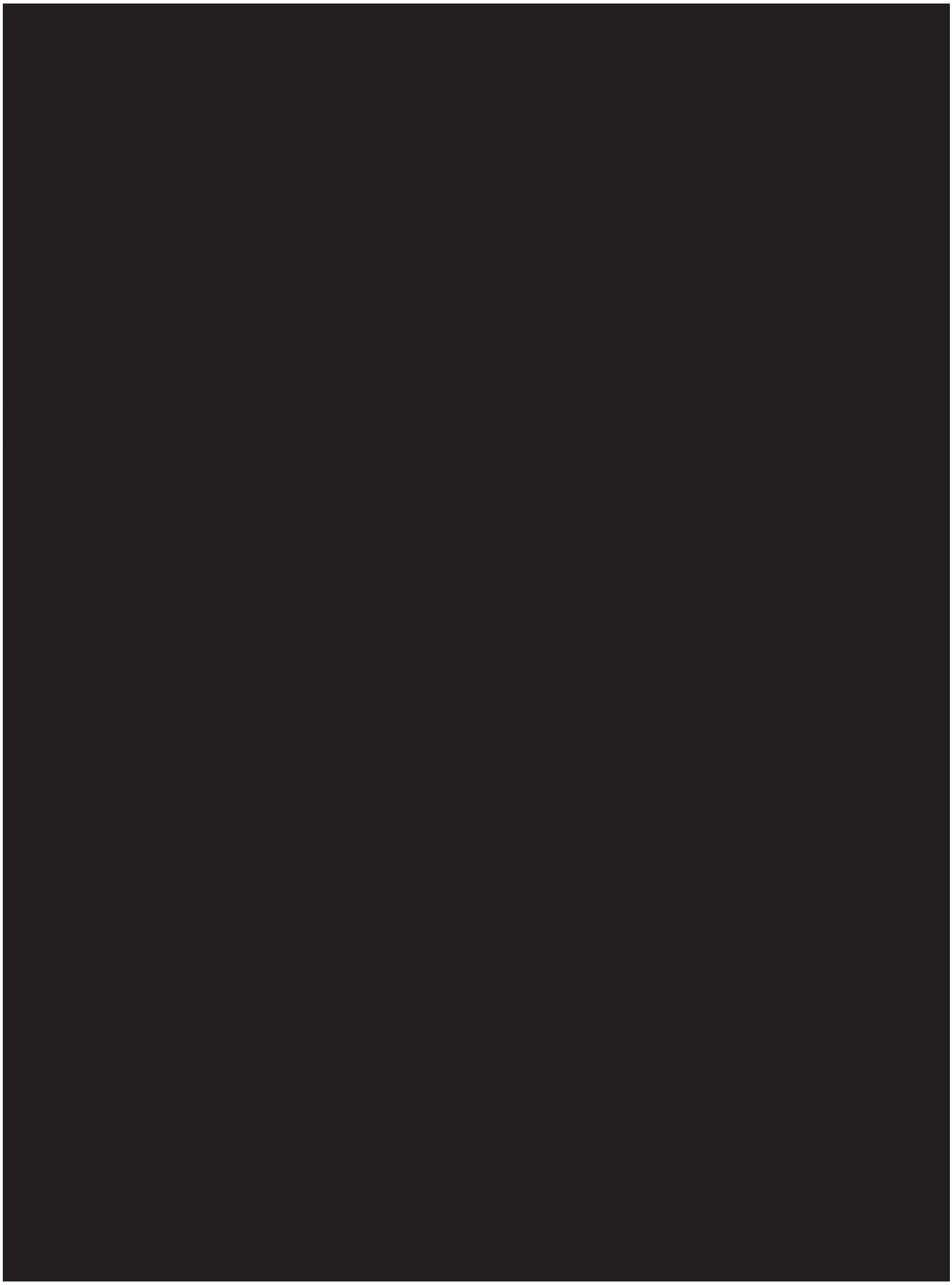
APPENDIX P.

SPECIAL FINANCIAL INSTITUTION AGREEMENT FOR USE WITH THE PAYMENTS-CLEARED FINANCING ARRANGEMENT *[MODs 0015, 0045, 0229]*

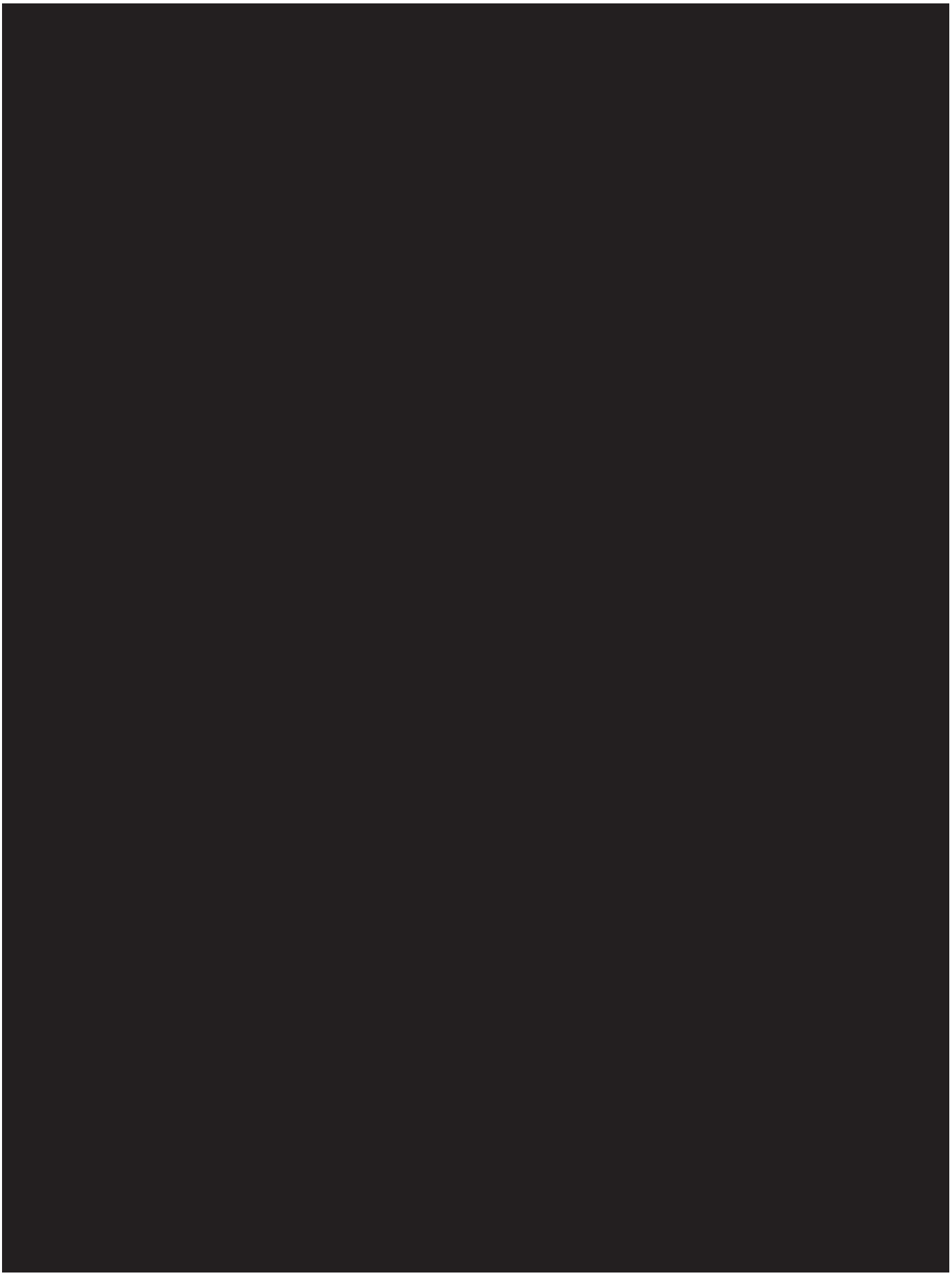
[Replaced in its entirety by MOD 0229]

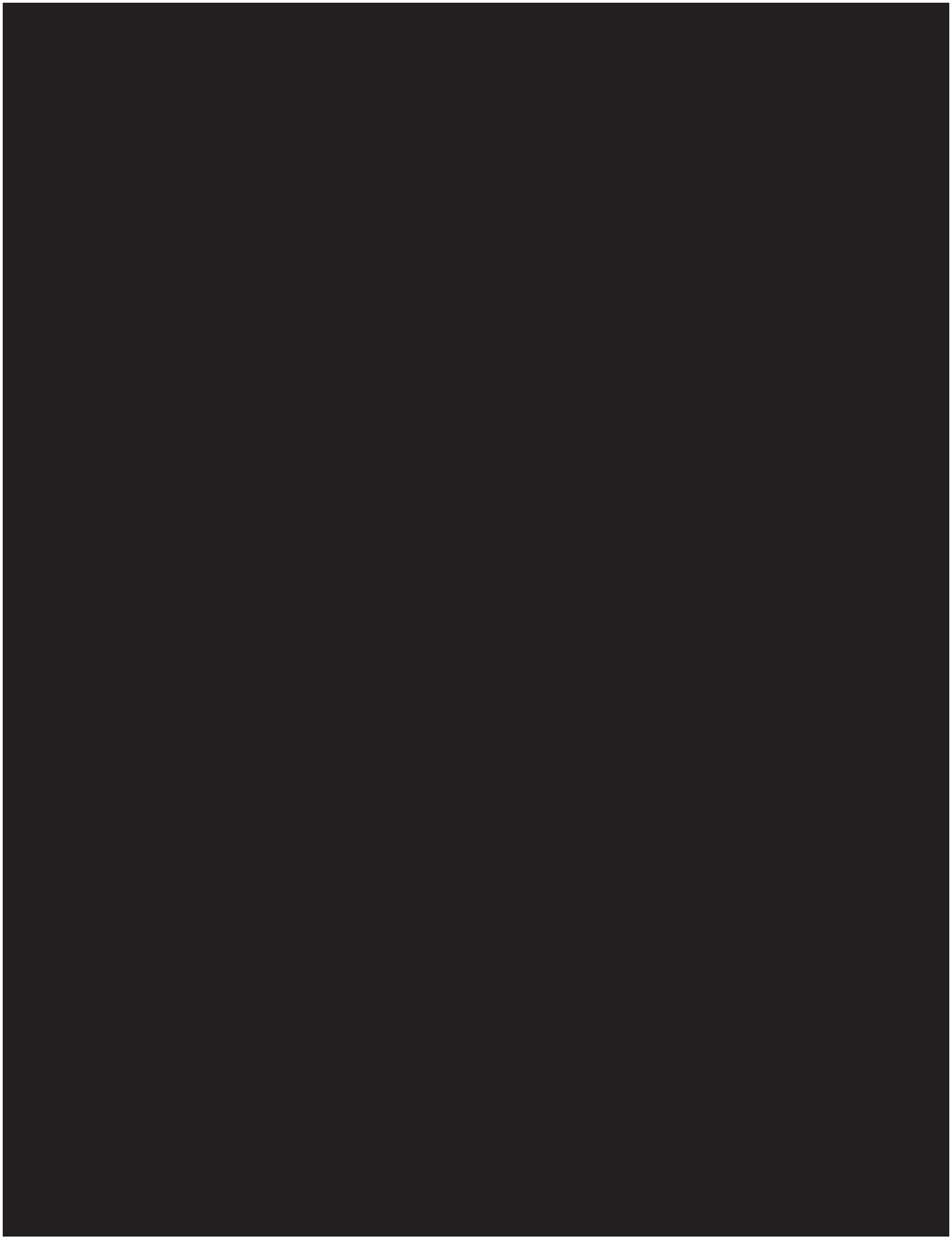
[redacted]

Contract No. DE-NA0001942

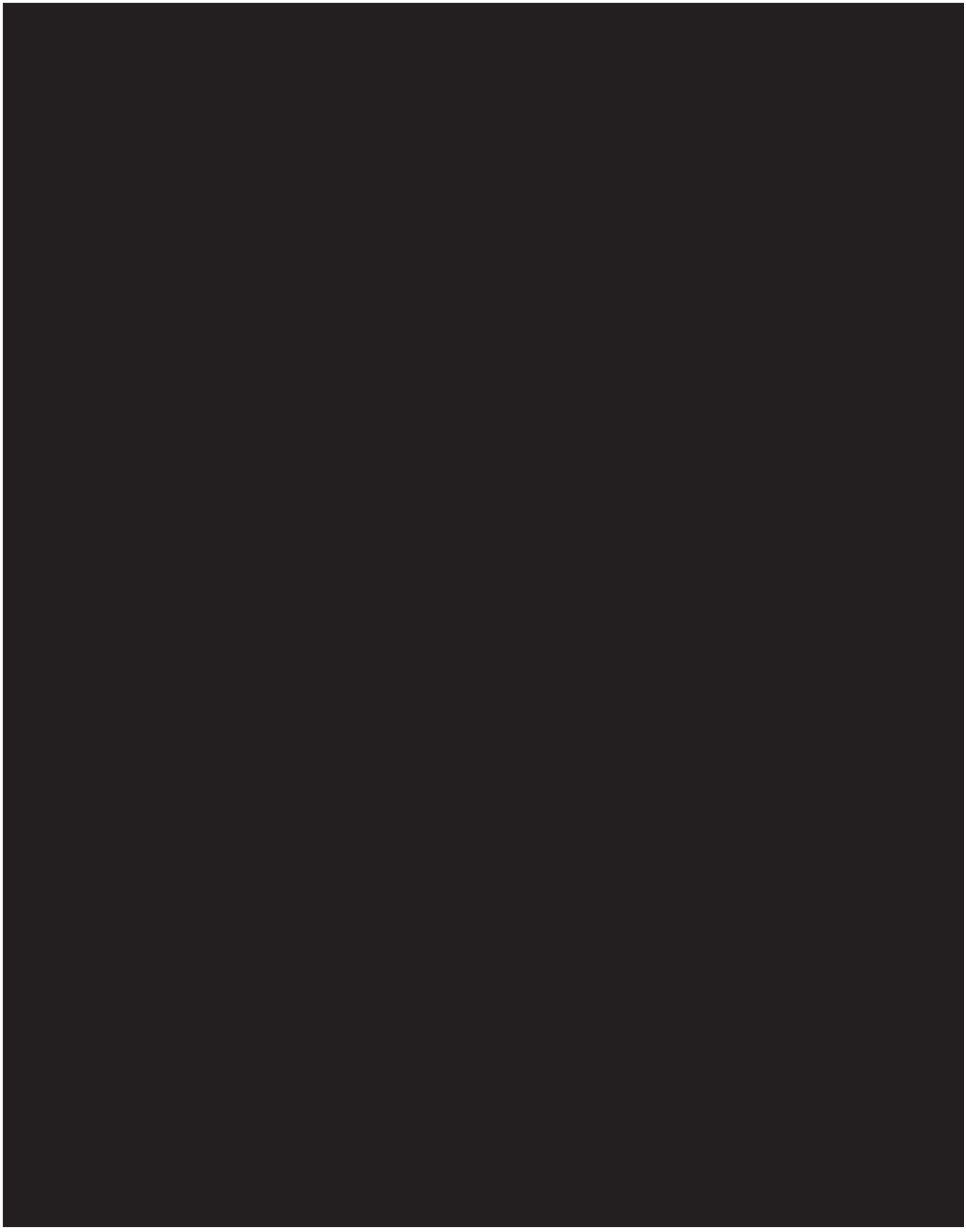


Contract No. DE-NA0001942

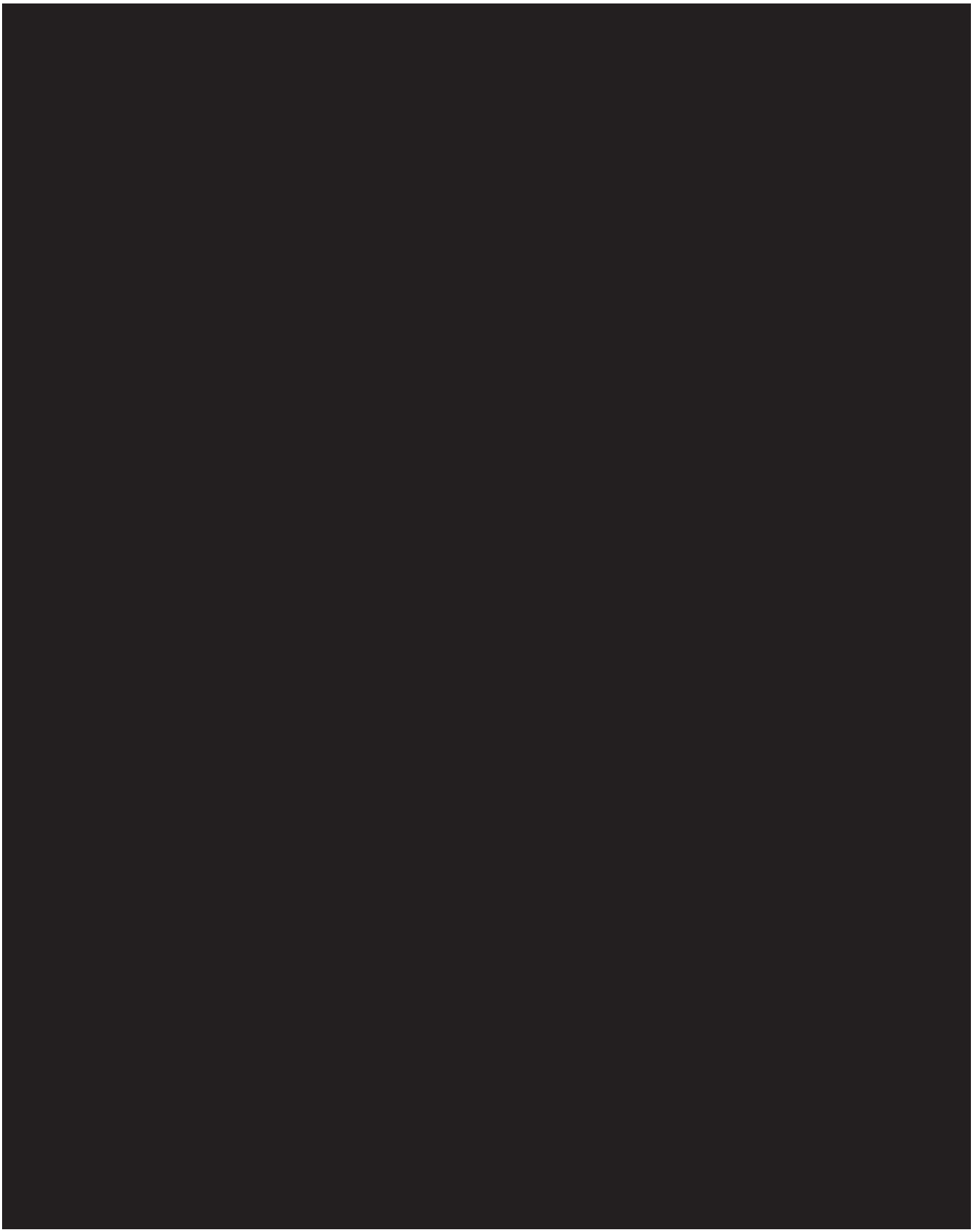


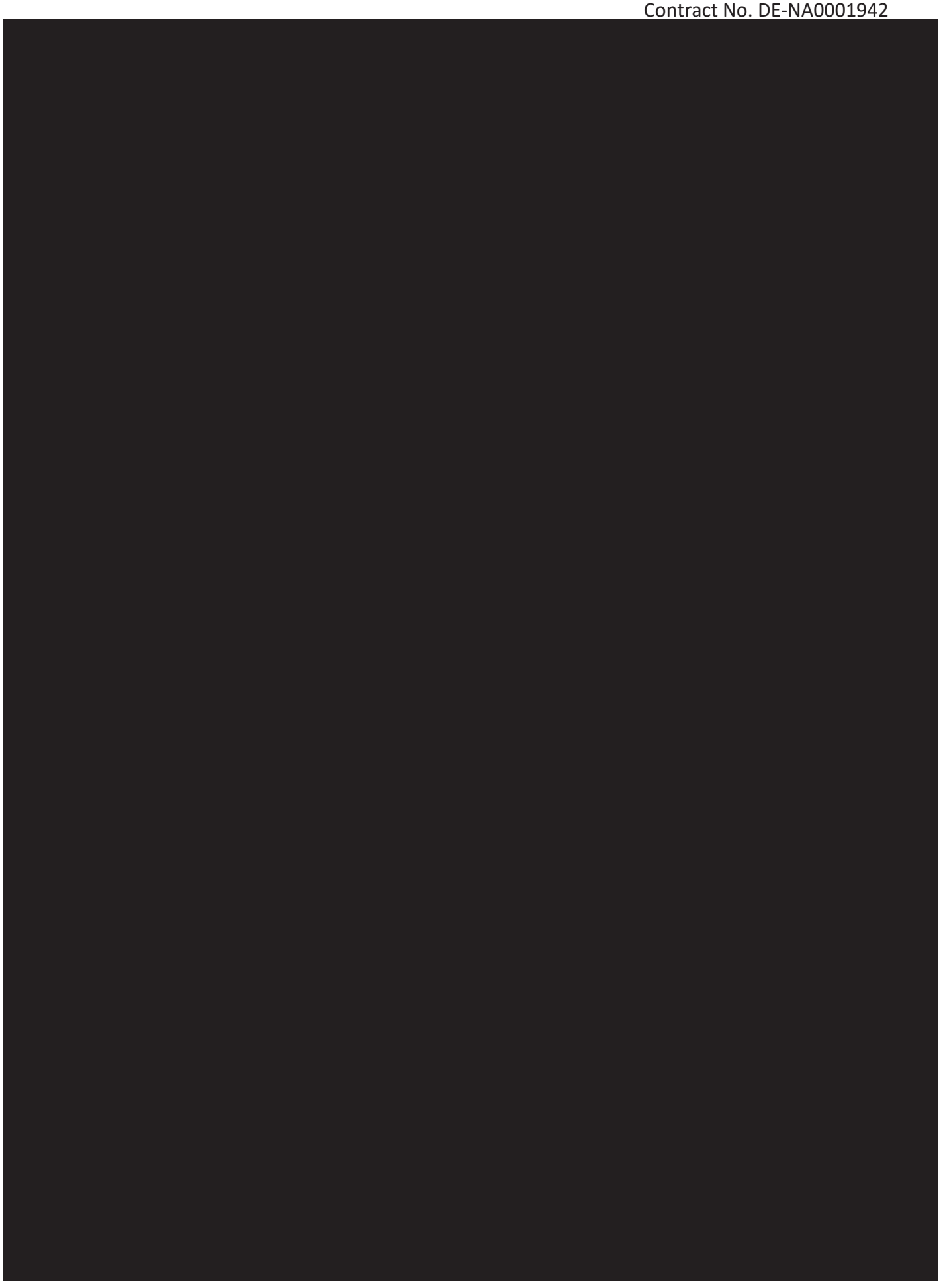


Contract No. DE-NA0001942

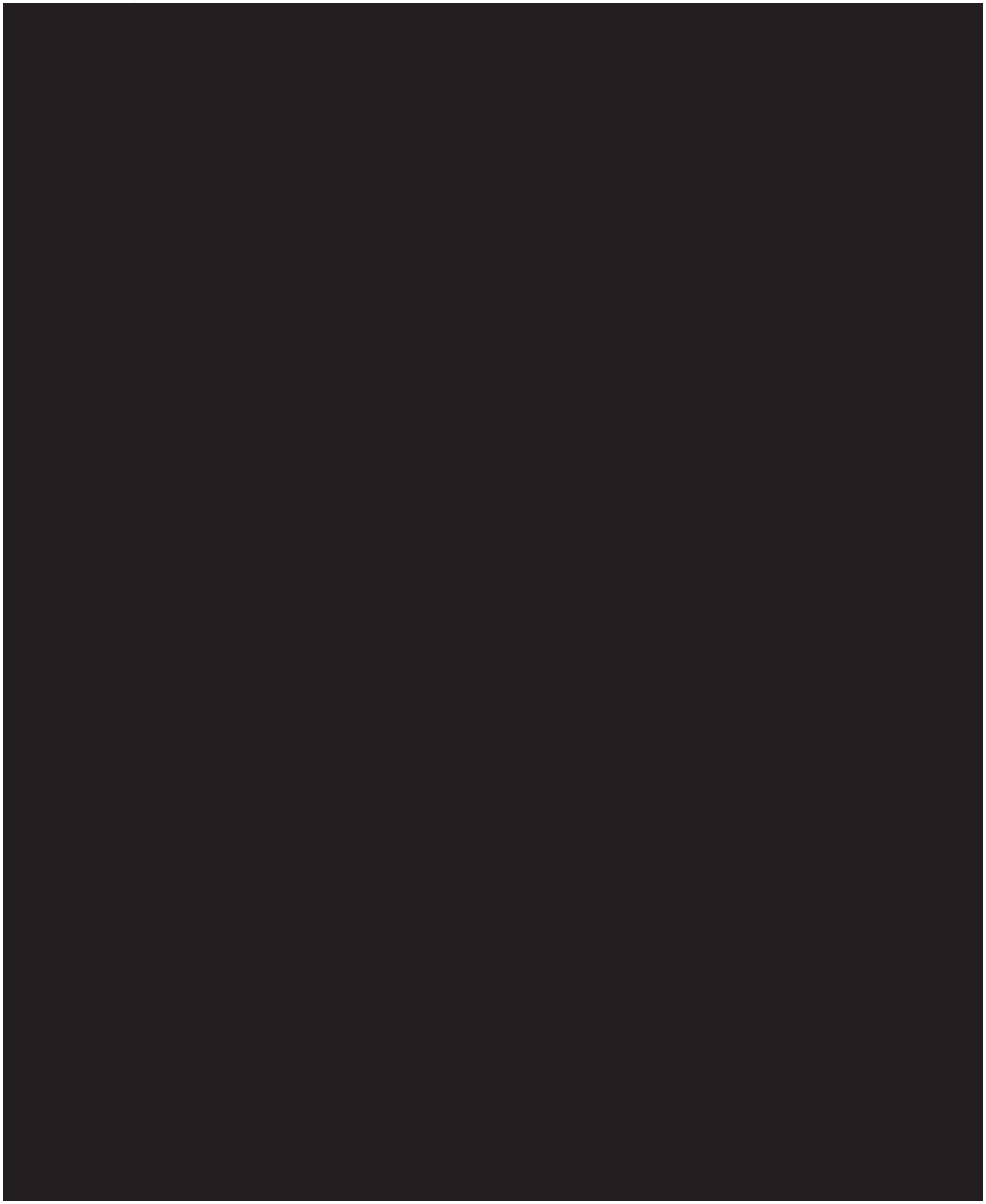


Contract No. DE-NA0001942

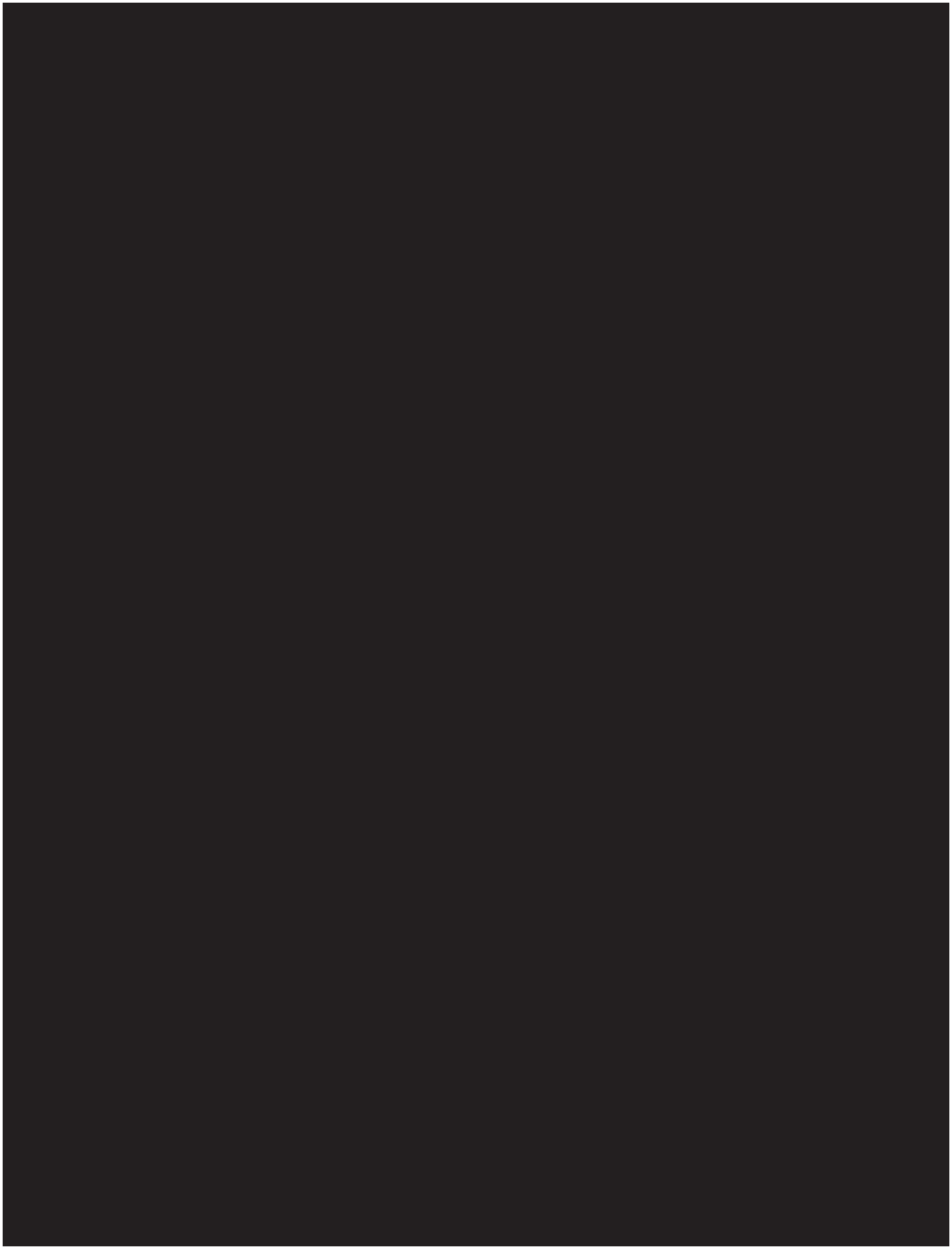




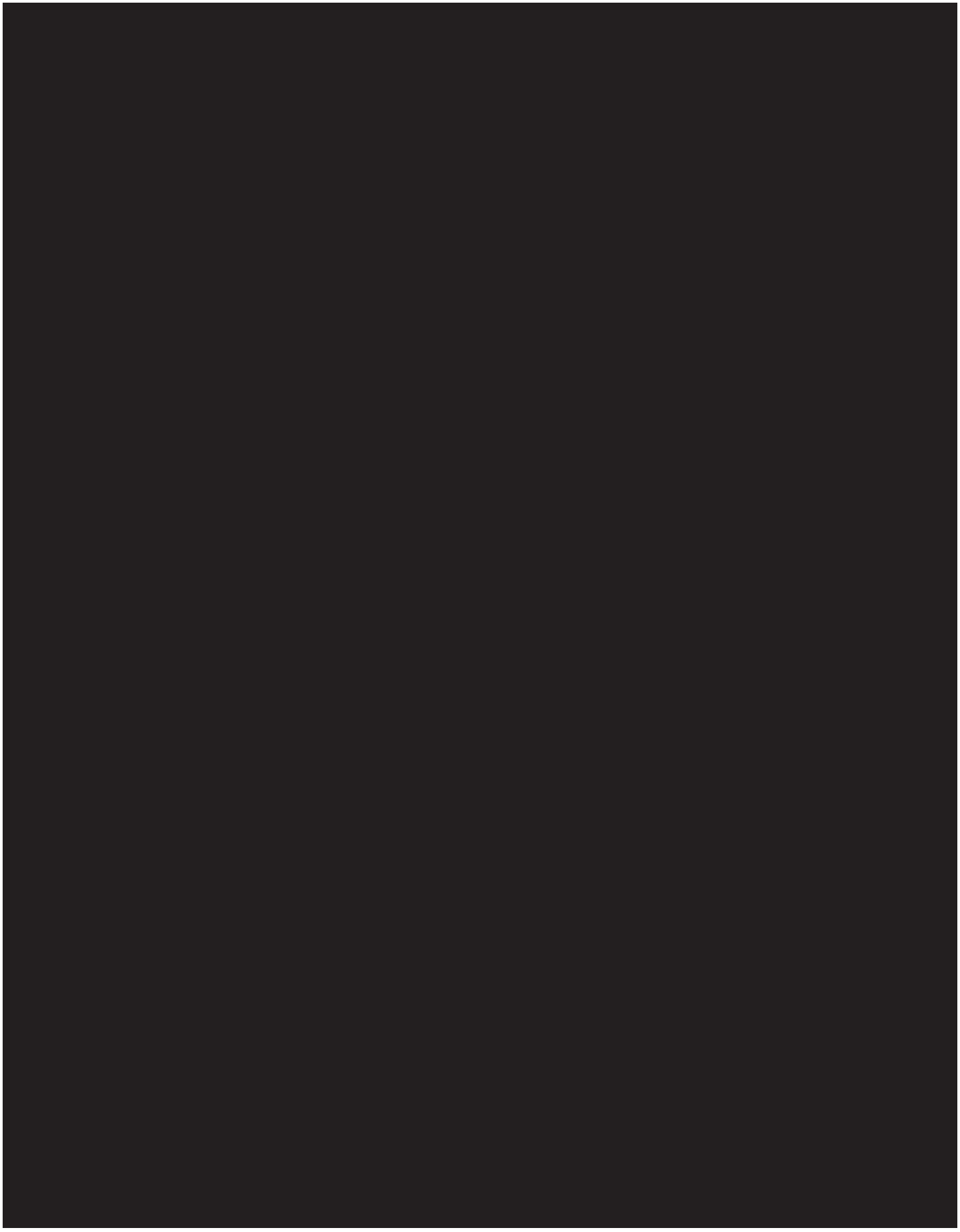
Contract No. DE-NA0001942

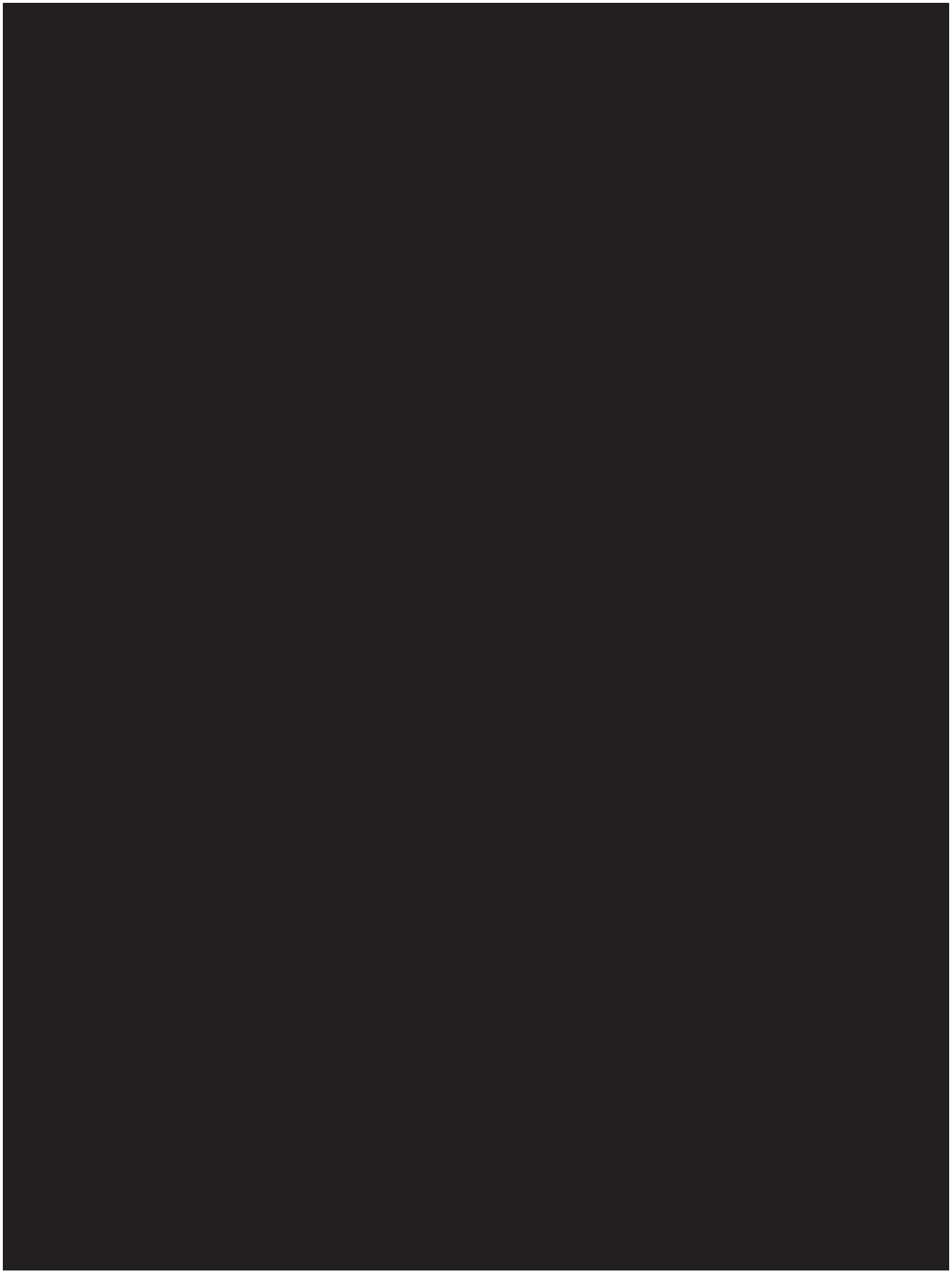


Contract No. DE-NA0001942



Contract No. DE-NA0001942





APPENDIX Q.

MINIMUM STANDARDS FOR CONTRACTORS' CONFLICT OF INTEREST (COI) PLANS

A. CORPORATE STRUCTURE

The COI Plan shall describe any parent relationship and list all affiliates, subsidiaries, and sister companies, etc. Generally, this need not exceed three corporate tiers, unless a relationship exists beyond three tiers that would potentially create a conflict. In such a case, relationships beyond three tiers should also be included in the COI Plan. Contractors should report changes in its corporate structure to DOE/NNSA throughout Contract performance. Contractors are invited to include under this section, a company profile. The profile should discuss all pertinent information relevant to COI including a summary of a Contractor's primary business functions and activities. This background information will potentially be very useful to Contracting Officers and the Agency when evaluating whether or not a Contractor has a COI.

B. SEARCH AND IDENTIFICATION OF COI

The COI Plan shall include a requirement describing when a COI search must be performed by company personnel and clearly identify the procedures to be followed. The searching requirement shall encompass all work related to all clients for whom work was performed over the past three years, all current work, all sites (if applicable), and any future work reflected in marketing proposals. Contractors must search their records over the past 36 months from time of receipt of the work from DOE/NNSA. However, DOE/NNSA encourages Contractors to search back as far as a company's records cover.

C. DATA BASE

The COI Plan shall require a database that includes all necessary information for a Contractor to review its past work (at a minimum over the past 36 months), work in progress, and work the company may be pursuing under any marketing proposals. This requirement does not establish any particular type or kind of retrieval system, however, the database shall contain, at a minimum, the following information and capabilities. (1) a list of the company's past and public clients; (2) a description of the type(s) of work that was performed and any other pertinent information; (3) a list of the past sites (when applicable) a Contractor has worked on; (4) a list of site name(s) (when applicable) related to any work performed; and (5) the ability to search and retrieve the information in the database. If applicable, the COI Plan shall include terms for supplemental searches of a parents, affiliates, subsidiaries, or sister company's records. The COI Plan shall also describe any cross-checks used by the company when searching COI issues.

D. PERSONAL CERTIFICATION

At a minimum, the COI Plan shall require ALL employees of the company performing work under a DOE/NNSA Contract, to sign a personal certification. The certification shall require at a minimum that the individual agrees to report to the proper company authority any personal COI the individual may have on any work that may result in an actual or potential COI. The certification shall also state the individual has read and understands the company's COI Plan and procedures. The employee certifications shall be retained by the company.

E. ANNUAL CERTIFICATION

The COI Plan shall describe the process the company requires for submission of its annual certification. NOTE: Annual certification is NOT required if the Contract contains a WA/TDD/DO certification requirement. Nevertheless, the Contractor's COI Plan should address the procedures to be followed for annual certifications.

F. NOTIFICATION AND DOCUMENTATION

The COI Plan shall clearly delineate who is the responsible official for making COI determinations within the company. Generally, this would be someone at the middle to upper level of management. The responsible official shall be free of any personal conflicts for the purpose of making COI determinations, e.g., a program manager who receives bonuses based on the total amount of sales may not be free of conflicts.

In addition, a Contractor shall document all COI searches related to DOE/NNSA work, whether or NOT an actual or potential COI has been identified.

G. TRAINING

The COI Plan shall require all employees of the company to receive basic COI training and COI awareness training, at least, on an annual basis. The company's COI Plan shall be available for all employees to review. Annual awareness training shall include, at a minimum, a review of the certification language and any changes that may have occurred in the company's COI Plan. In addition, companies are encouraged to routinely disseminate current COI information to their employees.

H. SUBCONTRACTOR'S COI PLANS

The COI Plan shall describe the process and mechanism by which the company will monitor its subcontractors to ensure all subcontractors are complying with the COI clauses in their Contracts. It is important that subcontractors identify and report COI as well as submit Limitation of Future Contracting (LOFC) requests for approval.

I. OTHER ACTIVITIES

The COI Plan shall provide relevant information about the Contractor's on-going or past performance of activities related to the Contract and the impact that those activities could have on the firm's judgment and objectivity in performing the Contract. Accordingly, the Contractor shall submit to DOE/NNSA an analysis of the potential for any organizational conflict of interest (OCOI) that may occur during performance of the Contract as a result of your firm's past or on-going performance of other activities. Should any such OCIs be identified, the Contractor shall provide a plan to effectively avoid, neutralize, or mitigate the conflict.

APPENDIX R.

LIST OF CONTRACTING OFFICER'S REPRESENTATIVES (CORs)

[MODs 0015, 0045, 0084, 0128, 0157, 0175, 0181, 0191, 0203, 0221, 0224, 0241, 0276, 0303, 0320, 0331, 0351]

LIST OF CONTRACTING OFFICER'S REPRESENTATIVES (CORs)

Name	Title	Functional Area
CLIN 0001 (Y-12 Field Office and HQ)		
[redacted]	Manager	All Manager's Functional Area(s) at Y-12: Operations Management; Business & Contract Management; Safeguards & Security; Nuclear Safety & Engineering; Environment, Safety, Health & Quality; Programs & Projects.
	Deputy Manager	All Deputy Manager's Functional Area(s) at Y-12: Operations Management; Business & Contract Management; Safeguards & Security; Nuclear Safety & Engineering; Environment, Safety, Health & Quality; Programs & Projects
	Acting Deputy Manager	All Deputy Manager's Functional Area(s) at Y-12: Operations Management; Business & Contract Management; Safeguards & Security; Nuclear Safety & Engineering; Environment, Safety, Health & Quality; Programs & Projects.
	Senior Technical Safety Manager, Office of Secure Transportation, NA-15	Provide technical direction for NNSA Office of Defense Programs (NA-10)/Office of Secure Transportation (NA-15) consistent with the Scope of Work, annual executed Implementation Plans, and approved Work Authorizations and/or Task Agreements relative to Mobile Guardian Transporter, Mobile Electronics Maintenance Facility, Electronics System Depot, Operational Vehicle Maintenance, Armored Tractor 4 (T4), Safeguards Transporter Maintenance, Risk Reduction, Refurbishment, ISA/SCR Integration, Fleeting of SLC, VC, and TCS2 Systems, Mechanical and Electrical Maintenance, Vehicle Life Cycle, Other/New and Emerging Technologies
	Program Analyst, NA-15	Provide technical direction for NNSA Office of Defense Programs (NA-10)/Office of Secure Transportation (NA-15) consistent with the Scope of Work, annual executed Implementation Plans, and approved Work Authorizations and/or Task Agreements.
	Deputy Director, MB-60	All financial matters to include but not limited to accounting, administrative control of funds and distribution, and related budget execution, financial oversight, financial reporting, and review of indirect rates.
	Assistant Manager for Nuclear Safety & Engineering/SSTA	All Y-12 Nuclear Safety functions to include, but not be limited to, safety basis, criticality safety, and vital safety systems. All facility operations at Y-12 to include, but not limited to nuclear facility operations, site occurrences, conduct of operations program, activity-level work control, facility and site management and maintenance programs.
	Assistant Manager for Programs & Projects	All Y-12 programmatic and project activities to include, but not be limited to, Directed Stockpile Work, Facilities and Infrastructure Recapitalization Program, Strategic

Name	Title	Functional Area
		Partnership Programs, Naval Reactors, Nuclear Nonproliferation Campaigns, Nuclear Material Management, Plant Directed Research and Development, and the preparation of strategic planning documents. Additional activities include infrastructure planning, energy sustainment, explosives program, start-up and restart activities, capital line items, expense projects and GPD/GPP.
[redacted]	Deputy Assistant Manager for Safeguards & Security	All Y-12 programmatic and project activities for the functional areas of Safeguards & Security and Cybersecurity.
	Site Counsel	Oversight of all Y-12 legal matters, including the administration of 10 CFR 719, Contractor Legal Management Requirements.
	Assistant Manager for Environment, Safety, Health & Quality	All Y-12 ESH&Q to include, but not be limited to, day-to-day oversight of health physics and radiological protection, industrial hygiene and occupational medicine, industrial safety, construction safety, firearm safety, aviation safety, explosive safety, pressure safety, electrical safety, traffic safety, chemical safety, fire protection program (including Fire Department), ES&H reporting, waste management, transportation, environmental programs, Environmental Management System, Emergency Management, technical training, Accident Investigation, National Environmental Policy Act, cultural resources, implementation of ISMS, Quality Assurance (Facility, Software, and Weapons), and delegation of Product Acceptance Authority, in accordance with the NNSA Policy Letter NAP-401.1A, Weapon Quality Policy. Responsible for implementing Federal Technical Qualification and Federal Employee Occupational Safety and Health Programs.
	Deputy Assistant Manager for Business & Contract Management	All Y-12 Business and Contract Management functions to include, but not be limited to, contract administration; contractor human resources; procurement; supply chain management; directives; records management; labor standards; interagency work; budget execution; Performance Evaluation and Measurement Plan; interim and final reports and award fee process; information solutions and services; internal and external reviews; and employee concerns.
	Assistant Deputy Administrator for Major Modernization Programs NA-19	All Major Modernization Programs to include but not limited to providing program direction on initiating timely work authorization, and performing oversight activities for Life Extension.

CLIN 0001 (APMO)		
[redacted]	APMO Federal Project Director NA-93	Ongoing programmatic and project management activities to include, but not limited to, all Y-12 APMO managed projects.

[redacted]	Federal Technical Director	Ongoing programmatic and project management activities to include, but not limited to, all Y-12 APMO managed projects.
	Federal Project Director	Ongoing programmatic and project activities to include, but not be limited to, the West End Protected Area Reduction Project.
	Federal Project Director	Ongoing programmatic and project activities to include, but not be limited to, the 9212 Calciner and Electrorefining Projects.
	Federal Project Director	Ongoing programmatic and project activities to include, but not limited to, the Lithium Processing Facility Project.
	Federal Project Director	Ongoing programmatic and project activities to include, but not limited to, the Direct Chip Melt and Bottom Loading Furnace Project.

CLIN 0002		
[redacted]	APMO Federal Project Director NA-93	Ongoing programmatic and project management activities to include, but not limited to, the Uranium Process Facility project.
	Federal Technical Director	Ongoing programmatic and project management activities to include, but not limited to, the Uranium Process Facility project.
	Federal Project Director	Ongoing programmatic and project activities to include, but not limited to, the Uranium Processing Facility Project.

APPENDIX S.

RESEVED FOR POTENTIAL FUTURE USE

[MOD 0150, MOD 0334]

APPENDIX T.

DAVIS BACON WAGE DETERMINATIONS

[Incorporated by MOD 0162, 0327]

T-1 WAGE RATES GOVERNING THE BASE PERIOD OF THE CONTRACT

T-2 WAGE RATES GOVERNING OPTION PERIOD 1 OF THE CONTRACT

T-3 WAGE RATES GOVERNING TERM UNDER CLIN 0001K AND CLIN 0001O

T-1

WAGE RATES GOVERNING THE BASE PERIOD OF THE CONTRACT

[MOD 0162]

TN120077 MOD 3 LAST MODIFICATION TN77
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TN120077 06/08/2012

Superseded General Decision Number: TN20100092

State: Tennessee

Construction Type: Building

County: Anderson County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/06/2012
1	05/11/2012
2	06/01/2012
3	06/08/2012

BOIL0453-003 01/01/2011

	Rates	Fringes
BOILERMAKER	$ 25.73	17.07

BRTN0005-006 05/01/2010

	Rates	Fringes
BRICKLAYER	$ 22.86	1.78

ELEC0760-006 06/01/2012

	Rates	Fringes
ELECTRICIAN (Including Electrical Installer (Alarms)	$ 22.74	4.25%+7.20

* ENGI0917-016 05/01/2012

	Rates	Fringes
Power Equipment Operator		
Backhoe/Trackhoe/Excavator	$ 24.94	9.40
Bulldozer	$ 24.94	9.40
Crane	$ 24.94	9.40
Forklift	$ 22.89	9.40
Grader/Blade	$ 22.89	9.40

IRON0384-005 05/01/2012

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING	$ 22.61	10.57

LABO0818-001 05/01/2012

	Rates	Fringes

Laborers:
GROUP 1.....$ 18.12 5.48
GROUP 2.....$ 18.42 5.48

GROUP 1: Common or General, Landscaping

GROUP 2: Form Work

PAIN0437-009 01/01/2007

	Rates	Fringes
PAINTER (Including Brush, Roller, Spray and Drywall Finishing/Taper)	$ 16.96	2.20

PLAS0078-001 05/01/2009

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 26.42	0.06

PLUM0102-004 05/01/2012

	Rates	Fringes
PIPEFITTER, Includes HVAC Pipe Installation	$ 27.18	10.40

PLUM0102-009 05/01/2012

	Rates	Fringes
PLUMBER (Excluding HVAC Pipe Installation)	$ 27.18	10.40

SHEE0005-012 05/01/2010

	Rates	Fringes
SHEET METAL WORKER (Including Metal Building Erector (Metal Siding/Wall Panel and HVAC Duct Installation (Excluding Metal Roof Installation)	$ 23.80	9.20

SUTN2009-075 09/21/2009

	Rates	Fringes
CARPENTER (Drywall Hanging Only)	$ 13.00	0.25
HVAC MECHANIC (HVAC System Installation Only)	$ 12.75	1.49
LABORER: Mason Tender - Brick	$ 12.82	0.00
LABORER: Roof Tearoff	$ 9.75	0.49
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 17.05	0.00

OPERATOR: Mechanic	$ 18.33	3.67
OPERATOR: Paver	$ 13.50	0.00
OPERATOR: Roller	$ 13.98	0.00
ROOFER: Built up Roof	$ 12.74	0.00
ROOFER: Rubber Roof	$ 16.82	4.77
ROOFER: Single Ply Roof	$ 16.50	0.32
SHEET METAL WORKER (Metal Roofs Installation)	$ 15.64	0.00
TILE FINISHER	$ 10.00	0.74
TRUCK DRIVER: Dump Truck	$ 12.56	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an

interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

TN120066 MOD 4 LAST MODIFICATION TN66
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TN120066 06/08/2012

Superseded General Decision Number: TN20100081

State: Tennessee

Construction Type: Building

County: Roane County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/06/2012
1	04/13/2012
2	05/11/2012
3	06/01/2012
4	06/08/2012

BRTN0005-005 05/01/2010

	Rates	Fringes
BRICKLAYER	$ 24.29	1.73

ELEC0760-009 06/01/2012

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* ENGI0917-015 05/01/2012

	Rates	Fringes
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Crane	$ 24.94	9.40
Forklift	$ 22.89	9.40

IRON0384-005 05/01/2012

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING	$ 22.61	10.57

PAIN0437-006 01/01/2007

	Rates	Fringes
PAINTER: Brush, Roller and Spray	$ 16.96	2.20

PLUM0102-005 05/01/2012

	Rates	Fringes
PIPEFITTER	$ 27.18	10.40

SFTN0669-001 04/01/2012

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers)	$ 23.83	14.72

SHEE0005-015 05/01/2011

	Rates	Fringes
SHEET METAL WORKER (Including HVAC Duct Installation)	$ 23.80	9.20

SUTN2009-064 09/21/2009

	Rates	Fringes
ACOUSTICAL CEILING MECHANIC	$ 11.25	0.52
CARPENTER, Includes Drywall Hanging (Excludes Acoustical Ceiling Installation)	$ 14.25	4.84
CEMENT MASON/CONCRETE FINISHER	$ 11.14	1.51
GLAZIER	$ 14.09	1.79
HVAC MECHANIC (HVAC System Installation Only)	$ 14.14	1.50
LABORER: Common or General	$ 9.00	0.00
LABORER: Mason Tender - Brick	$ 12.39	0.00
OPERATOR: Grader/Blade	$ 15.05	1.42
OPERATOR: Roller	$ 12.00	0.00
PLUMBER	$ 14.91	9.22
ROOFER, Includes Rubber, and Shake & Shingle Roofs	$ 15.38	0.00
TRUCK DRIVER: Dump Truck	$ 11.37	1.50

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

TX120257 MOD 3 LAST MODIFICATION TX257
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TX120257 12/21/2012

Superseded General Decision Number: TX20100291

State: Texas

Construction Type: Building

County: Carson County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/06/2012
1	04/20/2012
2	07/20/2012
3	12/21/2012

BOIL0531-001 01/01/2012

	Rates	Fringes
Boilermaker	$ 23.06	20.28

* BRTX0005-009 06/01/2012

	Rates	Fringes
Bricklayer	$ 19.50	1.73

CARP0665-002 05/01/2010

	Rates	Fringes
Carpenter	$ 20.18	5.56

ENGI0178-004 12/01/2009

	Rates	Fringes
OPERATOR: Forklift	$ 21.20	9.35

IRON0263-017 06/01/2012

	Rates	Fringes
Ironworker, reinforcing	$ 21.85	5.40

PAIN0053-003 04/01/2008

	Rates	Fringes
Painter - Brush, Roller & Spray	$ 15.81	4.56

PLUM0196-003 01/01/2012

	Rates	Fringes
PIPEFITTER, Excludes HVAC Unit Installation	$ 23.51	8.58

PLUM0196-004 01/01/2012

	Rates	Fringes
PLUMBER, Includes HVAC Pipe Installation	$ 23.51	8.58

SHEE0049-008 04/01/2012

	Rates	Fringes
Sheet Metal Worker (HVAC Duct Installation Only)	$ 30.60	15.24

SUTX2009-163 06/03/2009

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 18.58	0.00
ELECTRICIAN, Includes Low Voltage Wiring for Alarms	$ 16.63	1.65
IRONWORKER, STRUCTURAL	$ 10.38	0.00
LABORER: Common or General	$ 8.97	0.00
LABORER: Mason Tender - Brick	$ 11.00	0.00
OPERATOR: Backhoe/Excavator	$ 13.81	0.00
OPERATOR: Grader/Blade	$ 12.97	0.00
OPERATOR: Loader (Front End)	$ 12.23	0.00
ROOFER	$ 12.06	0.00
TILE SETTER	$ 8.50	0.00
TRUCK DRIVER	$ 10.15	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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END OF GENERAL DECISION

T-2

WAGE RATES GOVERNING OPTION PERIOD 1 OF THE CONTRACT

[MOD 0162]

TN170077 MOD 7 LAST MODIFICATION TN77
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TN170077 12/08/2017

Superseded General Decision Number: TN20160077

State: Tennessee

Construction Type: Building

County: Anderson County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	07/14/2017
2	08/04/2017
3	09/08/2017
4	09/29/2017
5	10/27/2017
6	11/10/2017
7	12/08/2017

BOIL0453-003 05/01/2015

	Rates	Fringes
BOILERMAKER	$ 25.68	18.75

BRTN0005-006 05/01/2017

	Rates	Fringes
BRICKLAYER	$ 26.03	2.17

CARP0050-002 05/01/2016

	Rates	Fringes
CARPENTER (Includes Scaffold Building and Excludes Drywall Hanging)	$ 25.33	11.41

ELEC0760-006 06/01/2017

	Rates	Fringes

ELECTRICIAN (Including
Electrical Installer (Alarms)....$ 24.64 4.25%+9.76

ENGI0917-016 05/01/2017

	Rates	Fringes
Power Equipment Operator		
Backhoe/Trackhoe/Excavator	$ 28.26	10.10
Bulldozer	$ 28.26	10.10
Crane	$ 28.26	10.10
Forklift	$ 25.97	10.10
Grader/Blade	$ 25.97	10.10

IRON0384-005 05/01/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING	$ 27.43	13.56

LABO0818-001 05/01/2017

	Rates	Fringes
Laborers:		
GROUP 1	$ 19.77	6.53
GROUP 2	$ 20.12	6.53

GROUP 1: Common or General, Landscaping

GROUP 2: Form Work

PAIN0437-009 05/01/2015

	Rates	Fringes
PAINTER (Including Brush, Roller, Spray and Drywall Finishing/Taper)	$ 26.43	10.05

PLAS0078-001 05/01/2015

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 31.00	.06

PLUM0102-004 05/01/2016

	Rates	Fringes
PIPEFITTER, Includes HVAC Pipe Installation	$ 28.68	12.20

PLUM0102-009 05/01/2016

	Rates	Fringes
PLUMBER (Excluding HVAC Pipe Installation)	$ 28.68	12.20

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* SHEE0005-012 05/01/2017

	Rates	Fringes
SHEET METAL WORKER (Including Metal Building Erector (Metal Siding/Wall Panel and HVAC Duct Installation (Excluding Metal Roof Installation)	$ 28.56	11.99

SUTN2009-075 09/21/2009

	Rates	Fringes
CARPENTER (Drywall Hanging Only)	$ 13.00	0.25
HVAC MECHANIC (Installation of HVAC Unit Only, Excludes Installation of HVAC Pipe and Duct)	$ 12.75	1.49
LABORER: Mason Tender - Brick	$ 12.82	0.00
LABORER: Roof Tearoff	$ 9.75	0.49
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 17.05	0.00
OPERATOR: Mechanic	$ 18.33	3.67
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 13.50	0.00
OPERATOR: Roller	$ 13.98	0.00
ROOFER: Built up Roof	$ 12.74	0.00
ROOFER: Rubber Roof	$ 16.82	4.77
ROOFER: Single Ply Roof	$ 16.50	0.32
SHEET METAL WORKER (Metal Roofs Installation)	$ 15.64	0.00
TILE FINISHER	$ 10.00	0.74
TRUCK DRIVER: Dump Truck	$ 12.56	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including

preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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END OF GENERAL DECISION

TN170066 MOD 5 LAST MODIFICATION TN66
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TN170066 12/08/2017

Superseded General Decision Number: TN20160066

State: Tennessee

Construction Type: Building

County: Roane County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	08/04/2017
2	09/08/2017
3	09/29/2017
4	10/27/2017
5	12/08/2017

BRTN0005-005 05/01/2017

	Rates	Fringes
BRICKLAYER	$ 26.03	2.24

ELEC0760-009 06/01/2017

	Rates	Fringes
ELECTRICIAN	$ 24.64	4.25%+9.76

ENGI0917-015 05/01/2017

	Rates	Fringes
Power Equipment Operator		
Backhoe/Trackhoe/Excavator	$ 28.26	10.10
Bulldozer	$ 28.26	10.10
Crane	$ 28.26	10.10
Forklift	$ 25.97	10.10

IRON0384-005 05/01/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING	$ 27.43	13.56

PAIN0437-006 05/01/2015

	Rates	Fringes
PAINTER: Brush, Roller and Spray	$ 26.43	10.05

PLUM0102-005 05/01/2016

	Rates	Fringes
PIPEFITTER	$ 28.68	12.20

SFTN0669-001 04/01/2016

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers)	$ 26.05	15.77

* SHEE0005-015 05/01/2017

	Rates	Fringes
SHEET METAL WORKER (Including HVAC Duct Installation)	$ 28.56	11.99

SUTN2009-064 09/21/2009

	Rates	Fringes
ACOUSTICAL CEILING MECHANIC	$ 11.25	0.52
CARPENTER, Includes Drywall Hanging (Excludes Acoustical Ceiling Installation)	$ 14.25	4.84
CEMENT MASON/CONCRETE FINISHER	$ 11.14	1.51
GLAZIER	$ 14.09	1.79
HVAC MECHANIC (Installation of HVAC Unit Only, Excludes Installation of HVAC Pipe and Duct)	$ 14.14	1.50
LABORER: Common or General	$ 9.00	0.00
LABORER: Mason Tender - Brick	$ 12.39	0.00
OPERATOR: Grader/Blade	$ 15.05	1.42
OPERATOR: Roller	$ 12.00	0.00

PLUMBER.....$ 14.91 9.22

ROOFER, Includes Rubber, and
Shake & Shingle Roofs.....$ 15.38 0.00

TRUCK DRIVER: Dump Truck.....$ 11.37 1.50

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number

where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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END OF GENERAL DECISION

TX170286 MOD 3 LAST MODIFICATION TX286
****THIS WAGE DETERMINATION WAS ACTIVE AS OF THE END OF YEAR****
General Decision Number: TX170286 09/22/2017

Superseded General Decision Number: TX20160286

State: Texas

Construction Type: Building

County: Carson County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	04/14/2017
2	09/08/2017
3	09/22/2017

BOIL0074-003 01/01/2017

	Rates	Fringes
BOILERMAKER	$ 28.00	22.35

CARP0665-001 05/01/2017

	Rates	Fringes
CARPENTER	$ 22.25	7.31

ELEC0602-007 09/01/2016

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring and Installation of Alarms)	$ 26.27	3%+9.70

ENGI0178-005 06/01/2014

	Rates	Fringes

POWER EQUIPMENT OPERATOR		
(1) Tower Crane	$ 29.00	10.60
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above	$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under	$ 27.50	10.60

IRON0084-011 06/01/2017

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 23.27	7.12

IRON0263-003 06/01/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL	$ 23.25	7.32

PLUM0404-001 07/01/2016

	Rates	Fringes
PLUMBER	$ 25.91	9.40

* SHEE0049-001 06/01/2017

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 23.93	11.66

SUTX2014-012 07/21/2014

	Rates	Fringes
BRICKLAYER	$ 20.04	0.00
CEMENT MASON/CONCRETE FINISHER	$ 19.60	0.00
ELECTRICAL INSTALLER (Alarms) (Excludes Wiring)	$ 18.68	2.87
ELECTRICIAN (Low Voltage Wiring Only)	$ 15.51	3.15
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)	$ 19.77	7.13
IRONWORKER, REINFORCING	$ 12.27	0.00
LABORER: Common or General	$ 12.34	0.00
LABORER: Mason Tender - Brick	$ 11.36	0.00
LABORER: Mason Tender - Cement/Concrete	$ 10.58	0.00

LABORER: Pipelayer	$ 12.49	2.13
LABORER: Roof Tearoff	$ 11.28	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 14.25	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 13.93	0.00
OPERATOR: Bulldozer	$ 18.29	1.31
OPERATOR: Drill	$ 16.22	0.34
OPERATOR: Forklift	$ 14.83	0.00
OPERATOR: Grader/Blade	$ 13.37	0.00
OPERATOR: Loader	$ 13.55	0.94
OPERATOR: Mechanic	$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 16.03	0.00
OPERATOR: Roller	$ 12.70	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping	$ 14.27	0.00
PAINTER: Drywall Finishing/Taping Only	$ 14.71	0.00
ROOFER	$ 13.75	0.00
SHEET METAL WORKER, Excludes HVAC Duct Installation	$ 21.13	6.53
TILE FINISHER	$ 11.22	0.00
TILE SETTER	$ 14.00	2.01
TRUCK DRIVER: Dump Truck	$ 12.39	1.18
TRUCK DRIVER: Flatbed Truck	$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck	$ 12.50	0.00
TRUCK DRIVER: Water Truck	$ 12.00	4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

T-3

WAGE RATES GOVERNING TERM UNDER CLIN 0001K AND CLIN 0001O

[*MOD 0327*]

The following General Decisions effective October 1, 2024 - September 30, 2025, are incorporated herein:

- TN20240147, Modification 0, dated January 05, 2024
- TN20240176, Modification 4, dated August 23, 2024
- TN20240141, Modification 0, dated January 05, 2024
- TN20240186, Modification 3, dated July 26, 2024
- TN20240121, Modification 0, dated January 05, 2024

The following General Decisions effective October 1, 2024 – October 31, 2024, are incorporated herein:

- TX20240237, Modification 0, dated January 05, 2024
- TX20240002, Modification 0, dated January 05, 2024
- TX20240265, Modification 0, dated January 05, 2024

"General Decision Number: TN20240147 01/05/2024

Superseded General Decision Number: TN20230147

State: Tennessee

Construction Type: Highway

Counties: Tennessee Statewide.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024

SUTN2016-001 07/13/2016

	Rates	Fringes
BRICKLAYER	$ 14.26 **	
CARPENTER	$ 17.52	
CEMENT MASON/CONCRETE FINISHER	$ 15.55 **	
ELECTRICIAN	$ 24.08	
IRONWORKER		
Reinforcing	$ 16.29 **	
Structural	$ 16.89 **	
LABORER		
Common/Unskilled	$ 13.11 **	
Skilled		
Air Tool Operator, Asphalt Raker, Chain Saw Operator, Concrete Mixer (less than 1 yd), Concrete Rubber, Edger, Fence Erector, Form Setter (steel), Guard Rail Erector, Mechanic's Tender (tire changer or oiler), Mortar Mixer, Nozzleman or Gun Operator (gunite), Pipelayer, Sign Erector	$ 15.27 **	
PAINTER (INCLUDES SANDBLASTER)	$ 26.36	
POWER EQUIPMENT OPERATOR:		
GROUP 1		
Backhoe/Hydraulic Excavator (3/4 yd & over), Crane (less than 20 Tons), End Loader (3 yd & over), Motor Patrol (finish),Piledriver, Dragline	$ 19.14	
GROUP 1A		
Drill Operator (Caisson)	$ 25.26	
Farm Tractor Operator (Power Broom)	$ 13.50 **	
GROUP 2		
Backhoe/Hydraulic Excavator (less than 3/4 yd), Bulldozer or Push Dozer, End Loader (less than 3 yd), Motor Patrol (rough), Tractor (crawler/ utility), Truck Driver (Heavy Duty, Off Road) Scraper, Shovel, or Trenching Machine	$ 17.08 **	
GROUP 3		
Asphalt Paver, Concrete Finishing Machine, Concrete Paver, Scale, Spreader (self-propelled), Concrete Grinder, Asphalt Milling		

Machine, Boring Machine
(horizontal).....$ 17.75
GROUP 4
Bobcat, Central Mining
Plant, Concrete Pump,
Concrete Saw, Curb
Machine (automatic or
manual), Dozer or Loader
(stockpile), Drill
(piling), Mulcher or
Seeder, Rock Drill (truck
mounted), Roller
(asphalt), Roller
(compaction self-
propelled), Soil
Stabilization Machine,
Tractor (boom and hoist),
Bituminous Distributor
Machine, pump, Track
Drill, Striping Machine....$ 16.48 **
Heavy Duty Mechanic.....$ 20.33
Light Duty Mechanic.....$ 19.53
Sweeping Machine (Vacuum)
Operator.....$ 15.56 **
GROUP 5
Crane (over 20 Tons).....$ 20.44

TRUCK DRIVER
2 axles.....$ 15.36 **
3-4 axles.....$ 14.86 **
5 or more axles.....$ 16.27 **

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

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A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010

08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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U.S. Department of Labor
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Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

) A d l c i s ions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TN20240176 08/23/2024

Superseded General Decision Number: TN20230176

State: Tennessee

Construction Type: Building
BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories)

County: Anderson County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

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Modification Number	Publication Date
0	01/05/2024
1	03/22/2024
2	05/31/2024
3	07/26/2024
4	08/23/2024

ASBE0086-002 03/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 36.52	18.47

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* CARP0050-003 05/01/2024

	Rates	Fringes
CARPENTER	$ 29.88	16.79

ELEC0270-001 06/01/2024

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring)	$ 32.61	5%+17.03
ELECTRICIAN (Low Voltage Wiring Only)	$ 32.96	11%+8.10

ENGI0917-003 05/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Backhoe/Trackhoe/Excavator	$ 33.23	13.40
Bulldozer	$ 33.23	13.40
Crane	$ 36.25	13.40

IRON0492-001 05/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 33.73	17.73
IRONWORKER, REINFORCING	$ 33.73	17.73

LABO0818-005 05/01/2021

	Rates	Fringes
LABORER (Pipelayer)	$ 21.45	8.06

PLUM0102-001 05/01/2023

	Rates	Fringes
PIPEFITTER	$ 33.51	15.70

SHEE0005-002 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (SIDING (METAL/ALUMINUM/VINYL))	$ 34.37	13.33

SHEE0005-003 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 34.37	13.33

SHEE0005-004 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Unit Installation Only)	$ 34.37	13.33

SHEE0005-007 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (Excludes HVAC Duct and Unit Installation)	$ 34.37	13.33

TEAM0519-001 05/01/2021

	Rates	Fringes
TRUCK DRIVER (Dump Truck)	$ 24.81	8.10

* SUTN2017-029 04/16/2021

	Rates	Fringes
BRICKLAYER	$ 20.00	0.00
CEMENT MASON/CONCRETE FINISHER	$ 22.67	4.11
IRONWORKER, STRUCTURAL	$ 18.30	0.00
LABORER DEMOLITION	$ 16.74 **	0.00
LABORER GRADE CHECKER	$ 13.01 **	0.00
LABORER: Common or General	$ 12.69 **	1.78
LABORER: Mason Tender - Brick	$ 13.54 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 13.00 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 16.84 **	0.00
OPERATOR: Drill	$ 26.50	4.76
OPERATOR: Forklift	$ 15.00 **	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 14.70 **	0.00
OPERATOR: Roller	$ 14.35 **	0.00
PAINTER (Brush and Roller)	$ 19.31	10.15
PLUMBER	$ 21.63	7.16
ROOFER	$ 16.29 **	0.00

TILE FINISHER.....$ 14.00 ** 0.00

TILE SETTER.....$ 19.65 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

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classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

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Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R ◆1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

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Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TN20240176 08/23/2024

Superseded General Decision Number: TN20230176

State: Tennessee

Construction Type: Building
BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories)

County: Anderson County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024
1	03/22/2024
2	05/31/2024
3	07/26/2024
4	08/23/2024

ASBE0086-002 03/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 36.52	18.47

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* CARP0050-003 05/01/2024

	Rates	Fringes
CARPENTER	$ 29.88	16.79

ELEC0270-001 06/01/2024

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring)	$ 32.61	5%+17.03
ELECTRICIAN (Low Voltage Wiring Only)	$ 32.96	11%+8.10

ENGI0917-003 05/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Backhoe/Trackhoe/Excavator	$ 33.23	13.40
Bulldozer	$ 33.23	13.40
Crane	$ 36.25	13.40

IRON0492-001 05/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 33.73	17.73
IRONWORKER, REINFORCING	$ 33.73	17.73

LABO0818-005 05/01/2021

	Rates	Fringes
LABORER (Pipelayer)	$ 21.45	8.06

PLUM0102-001 05/01/2023

	Rates	Fringes
PIPEFITTER	$ 33.51	15.70

SHEE0005-002 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (SIDING (METAL/ALUMINUM/VINYL))	$ 34.37	13.33

SHEE0005-003 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 34.37	13.33

SHEE0005-004 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Unit Installation Only)	$ 34.37	13.33

SHEE0005-007 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (Excludes HVAC Duct and Unit Installation)	$ 34.37	13.33

TEAM0519-001 05/01/2021

	Rates	Fringes
TRUCK DRIVER (Dump Truck)	$ 24.81	8.10

* SUTN2017-029 04/16/2021

	Rates	Fringes
BRICKLAYER	$ 20.00	0.00
CEMENT MASON/CONCRETE FINISHER	$ 22.67	4.11
IRONWORKER, STRUCTURAL	$ 18.30	0.00
LABORER DEMOLITION	$ 16.74 **	0.00
LABORER GRADE CHECKER	$ 13.01 **	0.00
LABORER: Common or General	$ 12.69 **	1.78
LABORER: Mason Tender - Brick	$ 13.54 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 13.00 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 16.84 **	0.00
OPERATOR: Drill	$ 26.50	4.76
OPERATOR: Forklift	$ 15.00 **	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 14.70 **	0.00
OPERATOR: Roller	$ 14.35 **	0.00
PAINTER (Brush and Roller)	$ 19.31	10.15
PLUMBER	$ 21.63	7.16
ROOFER	$ 16.29 **	0.00

TILE FINISHER.....$ 14.00 ** 0.00

TILE SETTER.....$ 19.65 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this

classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R ◆1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TN20240141 01/05/2024

Superseded General Decision Number: TN20230141

State: Tennessee

Construction Type: Heavy
Including Water and Sewer Line Construction

Counties: Anderson, Blount and Loudon Counties in Tennessee.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/05/2024

ELEC0760-010 06/01/2020

	Rates	Fringes
ELECTRICIAN	$ 26.87	12.05

ENGI0917-026 05/01/2017

	Rates	Fringes
Operating Engineers:		
Backhoe, Excavator, Trackhoe, Bulldozer, and Crane	$ 28.26	10.10
Forklift	$ 25.97	10.10

LABO0818-003 05/01/2017

	Rates	Fringes
LABORER: Common or General	$ 19.77	6.53

SUTN2009-140 12/02/2009

	Rates	Fringes
LABORER: Flagger	$ 8.73 **	0.00
LABORER: Pipelayer	$ 11.75 **	0.00
OPERATOR: Loader	$ 13.50 **	0.00
TRUCK DRIVER: Dump Truck	$ 10.76 **	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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Wage and Hour Division
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Washington, DC 20210

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200 Constitution Avenue, N.W.
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3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

==========

END OF GENERAL DECISION"

"General Decision Number: TN20240186 07/26/2024

Superseded General Decision Number: TN20230186

State: Tennessee

Construction Type: Building
BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories)

County: Roane County in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024
1	03/22/2024
2	05/31/2024
3	07/26/2024

ASBE0086-002 03/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 36.52	18.47

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* ELEC0270-001 06/01/2024

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring)	$ 32.61	5%+17.03
ELECTRICIAN (Low Voltage Wiring Only)	$ 32.96	11%+8.10

ENGI0917-004 05/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Crane)	$ 36.25	13.40

ENGI0917-007 01/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Backhoe/Trackhoe/Excavator	$ 33.23	13.40
Bulldozer	$ 33.23	13.40

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* IRON0492-001 05/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 33.73	17.73
IRONWORKER, REINFORCING	$ 33.73	17.73

LABO0818-005 05/01/2021

	Rates	Fringes
LABORER (Pipelayer)	$ 21.45	8.06

PLUM0102-001 05/01/2023

	Rates	Fringes
PIPEFITTER	$ 33.51	15.70

SHEE0005-002 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (SIDING (METAL/ALUMINUM/VINYL))	$ 34.37	13.33

SHEE0005-003 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 34.37	13.33

SHEE0005-007 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (Excludes HVAC Duct and Unit Installation)	$ 34.37	13.33

TEAM0519-001 05/01/2021

	Rates	Fringes
TRUCK DRIVER (Dump Truck)	$ 24.81	8.10

* UAVG-TN-0001 01/01/2024

	Rates	Fringes
SHEET METAL WORKER (HVAC Unit Installation Only)	$ 34.41	13.58

* SUTN2017-039 04/16/2021

	Rates	Fringes
BRICKLAYER	$ 20.00	0.00
CARPENTER	$ 24.28	9.15
CEMENT MASON/CONCRETE FINISHER	$ 22.67	4.11
IRONWORKER, STRUCTURAL	$ 18.30	0.00
LABORER DEMOLITION	$ 16.74 **	0.00
LABORER GRADE CHECKER	$ 13.01 **	0.00
LABORER: Common or General	$ 12.69 **	1.78
LABORER: Mason Tender - Brick	$ 13.54 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 13.00 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 16.84 **	0.00
OPERATOR: Drill	$ 26.50	4.76
OPERATOR: Forklift	$ 15.00 **	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 14.70 **	0.00
OPERATOR: Roller	$ 14.35 **	0.00
PAINTER (Brush and Roller)	$ 19.31	10.15
PLUMBER	$ 21.63	7.16

ROOFER.....$ 16.29 ** 0.00

TILE FINISHER.....$ 14.00 ** 0.00

TILE SETTER.....$ 19.65 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R ◆1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TN20240121 01/05/2024

Superseded General Decision Number: TN20230121

State: Tennessee

Construction Type: Heavy
Including Water and Sewer Line Construction

Counties: Bledsoe, Cocke, Greene, Grundy, Johnson, McMinn, Meigs, Monroe, Rhea, Roane and Sevier Counties in Tennessee.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number | Publication Date
0 | 01/05/2024

ENGI0917-025 05/01/2017

	Rates	Fringes
Operating Engineers: Backhoe, Excavator, Trackhoe, Bulldozer, and Crane	$ 28.26	10.10

SUTN2009-120 12/02/2009

	Rates	Fringes
ELECTRICIAN	$ 20.06	0.00
LABORER: Common or General	$ 11.36 **	0.00
LABORER: Flagger	$ 10.50 **	0.00
LABORER: Pipelayer	$ 12.75 **	0.00
TRUCK DRIVER: Dump Truck	$ 11.63 **	0.81

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
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END OF GENERAL DECISION"

"General Decision Number: TX20240237 01/05/2024

Superseded General Decision Number: TX20230237

State: Texas

Construction Type: Building

County: Carson County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024

BOIL0074-003 07/01/2023

	Rates	Fringes
BOILERMAKER	$ 37.00	24.64

CARP0665-001 01/01/2022

	Rates	Fringes
CARPENTER	$ 24.98	7.83

ELEC0602-007 09/01/2022

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring and Installation of Alarms)	$ 29.41	12.73

ENGI0178-005 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane	$ 32.85	13.10
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above	$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under	$ 32.35	13.10

IRON0084-011 06/01/2023

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 27.51	8.13

IRON0263-003 06/01/2023

	Rates	Fringes
IRONWORKER, STRUCTURAL	$ 27.89	7.93

PLUM0404-001 09/01/2022

	Rates	Fringes
PLUMBER	$ 28.64	10.65

SHEE0049-001 06/01/2022

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 26.72	12.13

SUTX2014-012 07/21/2014

	Rates	Fringes
BRICKLAYER	$ 20.04	0.00
CEMENT MASON/CONCRETE FINISHER	$ 19.60	0.00

ELECTRICAL INSTALLER (Alarms) (Excludes Wiring)	$ 18.68	2.87
ELECTRICIAN (Low Voltage Wiring Only)	$ 15.51 **	3.15
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)	$ 19.77	7.13
IRONWORKER, REINFORCING	$ 12.27 **	0.00
LABORER: Common or General	$ 12.34 **	0.00
LABORER: Mason Tender - Brick	$ 11.36 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 10.58 **	0.00
LABORER: Pipelayer	$ 12.49 **	2.13
LABORER: Roof Tearoff	$ 11.28 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 14.25 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 13.93 **	0.00
OPERATOR: Bulldozer	$ 18.29	1.31
OPERATOR: Drill	$ 16.22 **	0.34
OPERATOR: Forklift	$ 14.83 **	0.00
OPERATOR: Grader/Blade	$ 13.37 **	0.00
OPERATOR: Loader	$ 13.55 **	0.94
OPERATOR: Mechanic	$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 16.03 **	0.00
OPERATOR: Roller	$ 12.70 **	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping	$ 14.27 **	0.00
PAINTER: Drywall Finishing/Taping Only	$ 14.71 **	0.00
ROOFER	$ 13.75 **	0.00
SHEET METAL WORKER, Excludes HVAC Duct Installation	$ 21.13	6.53
TILE FINISHER	$ 11.22 **	0.00
TILE SETTER	$ 14.00 **	2.01
TRUCK DRIVER: Dump Truck	$ 12.39 **	1.18

TRUCK DRIVER: Flatbed Truck.....$ 19.65 8.57

TRUCK DRIVER: Semi-Trailer Truck.....$ 12.50 ** 0.00

TRUCK DRIVER: Water Truck.....$ 12.00 ** 4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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Union Rate Identifiers

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PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

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Survey Rate Identifiers

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Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
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The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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END OF GENERAL DECISION"

"General Decision Number: TX20240002 01/05/2024

Superseded General Decision Number: TX20230002

State: Texas

Construction Types: Heavy and Highway

Counties: Armstrong, Carson, Crosby, Ector, Irion, Lubbock, Midland, Potter, Randall, Taylor and Tom Green Counties in Texas.

HEAVY & HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

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If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

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Modification Number	Publication Date
0	01/05/2024

SUTX2011-002 08/02/2011

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (Paving & Structures)	$ 13.55 **	
ELECTRICIAN	$ 20.96	
FORM BUILDER/FORM SETTER		
Paving & Curb	$ 12.36 **	
Structures	$ 13.52 **	
LABORER		
Asphalt Raker	$ 12.28 **	
Flagger	$ 9.30 **	
Laborer, Common	$ 10.30 **	
Laborer, Utility	$ 11.80 **	
Work Zone Barricade Servicer	$ 10.30 **	
POWER EQUIPMENT OPERATOR:		
Asphalt Distributer	$ 14.87 **	
Asphalt Paving Machine	$ 13.40 **	
Broom and Sweeper	$ 11.21 **	
Crane, Lattice Boom 80 Tons or Less	$ 16.82 **	
Crawler Tractor Operator	$ 13.96 **	
Excavator, 50,000 lbs or less	$ 13.46 **	
Front End Loader Operator, Over 3 CY	$ 12.77 **	
Front End Loader, 3CY or less	$ 12.28 **	
Loader/Backhoe	$ 14.18 **	
Mechanic	$ 20.14	
Milling Machine	$ 15.54 **	
Motor Grader, Rough	$ 16.15 **	
Motor Grader, Fine	$ 17.49	
Pavement Marking Machine	$ 16.42 **	
Reclaimer/Pulverizer	$ 12.85 **	
Roller, Asphalt	$ 10.95 **	
Roller, Other	$ 10.36 **	
Scraper	$ 10.61 **	
Spreader Box	$ 12.60 **	
Servicer	$ 13.98 **	
Steel Worker (Reinforcing)	$ 13.50 **	
TRUCK DRIVER		
Lowboy-Float	$ 14.46 **	
Single Axle	$ 12.74 **	
Single or Tandem Axle Dump	$ 11.33 **	
Tandem Axle Tractor with Semi	$ 12.49 **	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher

minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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Wage and Hour Division

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TX20240265 01/05/2024

Superseded General Decision Number: TX20230265

State: Texas

Construction Type: Building

County: Potter County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2024

BOIL0074-003 07/01/2023

	Rates	Fringes
BOILERMAKER	$ 37.00	24.64

CARP0665-001 01/01/2022

	Rates	Fringes
CARPENTER	$ 24.98	7.83

ELEC0602-007 09/01/2022

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring and Installation of Alarms)	$ 29.41	12.73

ENGI0178-005 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane	$ 32.85	13.10
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above	$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under	$ 32.35	13.10

IRON0084-011 06/01/2023

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 27.51	8.13

PLUM0404-001 09/01/2022

	Rates	Fringes
PLUMBER	$ 28.64	10.65

SHEE0049-001 06/01/2022

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 26.72	12.13

SUTX2014-042 07/21/2014

	Rates	Fringes
BRICKLAYER	$ 20.04	0.00
CEMENT MASON/CONCRETE FINISHER	$ 19.60	0.00
ELECTRICAL INSTALLER (Alarms Only) Excludes Wiring	$ 18.68	2.87
ELECTRICIAN (Low Voltage Wiring Only)	$ 15.65 **	3.20

INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)	$ 19.77	7.13
IRONWORKER, REINFORCING	$ 12.27 **	0.00
IRONWORKER, STRUCTURAL	$ 21.13	0.54
LABORER: Common or General	$ 12.10 **	0.00
LABORER: Mason Tender - Brick	$ 11.36 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 10.58 **	0.00
LABORER: Pipelayer	$ 12.49 **	2.13
LABORER: Roof Tearoff	$ 11.28 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 14.25 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 13.93 **	0.00
OPERATOR: Bulldozer	$ 18.29	1.31
OPERATOR: Drill	$ 16.22 **	0.34
OPERATOR: Forklift	$ 14.83 **	0.00
OPERATOR: Grader/Blade	$ 13.37 **	0.00
OPERATOR: Loader	$ 13.55 **	0.94
OPERATOR: Mechanic	$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 16.03 **	0.00
OPERATOR: Roller	$ 12.70 **	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping	$ 14.14 **	0.00
PAINTER: Drywall Finishing/Taping Only	$ 14.77 **	0.00
ROOFER	$ 13.75 **	0.00
SHEET METAL WORKER, Excludes HVAC Duct Installation	$ 21.13	6.53
TILE FINISHER	$ 11.22 **	0.00
TILE SETTER	$ 14.00 **	2.01
TRUCK DRIVER: Dump Truck	$ 12.39 **	1.18
TRUCK DRIVER: Flatbed Truck	$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck	$ 12.50 **	0.00

TRUCK DRIVER: Water Truck.......$ 12.00 **   4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number

where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for

the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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Wage and Hour Division
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END OF GENERAL DECISION"

APPENDIX U.

ANNUAL FEE BASELINE PROCESS FRAMEWORK

[Incorporated by MOD 0269]

Annual Fee Baseline Process Framework

for

Contract DE-NA0001942

Clause *B-10 ANNUAL FEE BASELINE APPLICABLE TO PERFORMANCE BEGINNING 01 OCTOBER 2022*

September 30, 2022

Revision 0

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Annual Fee Baseline Process Framework

Purpose:

This document provides a framework outlining the processes and requirements for implementing the Annual Fee Baseline (AFB) pursuant to Contract No. DE-NA0001942 Clause *B-10 ANNUAL FEE BASELINE APPLICABLE TO PERFORMANCE BEGINNING 01 OCTOBER 2022*. The Framework enables the calculation and management of CNS' AFB and resulting Available Award Fee amount by describing the composition and reconciliation of the AFB, definitions thereto, as well as associated exclusions, change control processes, and evaluation of the final AFB at fiscal year-end.

The AFB Process Framework utilizes and builds upon the existing procedures and processes used to administer CNS' Annual Controlled Baseline.[1] The AFB is measured at the program level (e.g., B61-12, W80-4, etc.) by resources category (i.e., labor, material, and other); and is under configuration management and control, with all changes formally documented and accessible to NNSA. The AFB is maintained in a manner consistent with, and reconcilable to, approved work authorizations, funding levels, and any programmatic reporting including EVMS or EVMS-like systems. Changes to the AFB are managed by the CNS Enterprise Procedure E-PROC-3184, *Annual Controlled Baseline Change Control Process,* using a subset of that Change Criteria to administer and submit a quarterly change control log as detailed in the Change Control section below. The AFB along with associated substantiating information to validate the proposed Fee Base and Available Award Fee will be submitted to the Contracting Officer annually by August 15th of the preceding fiscal year unless otherwise agreed to in advance in writing by the Contracting Officer.

AFB Composition and Reconciliation[2]:

The AFB is presented at the program level using the budget site splits (President's Budget Request [PBR] and subsequent Enacted Budget) and shall include a reconciliation of the budget to the proposed AFB and resulting Available Award Fee amount that clearly identifies all additions to and exclusions from the budget site splits.

Mandatory Exclusions from the AFB include:

(A) Carryover, which is defined as the estimated costs of any work which was included in the AFB of a previous contract period[3];

(B) Estimated costs included in the enacted budget for any work to be performed by a federal entity or DOE/NNSA prime contractor other than Contractor, if applicable. Scope[4] that is

[1] The Annual Controlled Baseline was established and implemented at the start of CNS' contract in 2014 and is governed by CNS Enterprise Strategy Document E-SD 2053, Annual Controlled Baseline. In the context of DE-NA0001942, the Annual Controlled Baseline represents the M&O's planned execution baseline.
[2] *Figure 3 - Fee Base and Available Award Fee Calculation Template* after the AFB Final Reconciliation and Adjustment Section provides an illustrative example of how the AFB is updated throughout the fiscal year.
[3] For the purposes of FY23, this would exclude work included in the FY22 ACB since the AFB begins in FY23.
[4] Scope in this instance entails that portion of the statement of work for which CNS maintains ownership, accountability, and responsibility.

funded in CNS' budget, but is performed by another M&O will be included in the AFB. Funds included on CNS' Approved Funding Process as pass-through costs for Sitewide Requirements will not be included in the AFB;

(C) Estimated costs of Inter-Contractor Purchases placed with CNS by other DOE/NNSA prime contractors or their subcontractors. CNS performs work for other DOE/NNSA prime contractors through the cash work process, which will be excluded from the AFB;

(D) Prefunding or continuity of operations funding intended for execution and costing in a subsequent contract term. If prefunding is provided in a current execution year it will not be reflected in the AFB for that year, but will be added to the AFB for the subsequent contract term as it will have been reduced from the Enacted Budget; and

(E) The cost estimate associated with any scope of work (i.e. Line-Item Construction Projects) for which a separate fee structure is negotiated. These currently include the Uranium Processing Facility (UPF), which is included in the PBR and Enacted Budget, and Strategic Partnership Projects (SPP), which is treated as cash work and is not included in the PBR or Enacted Budget;

(F) That portion of the budget attributable to fee.

Calculation of Available Fee:

Available Award Fee. Consistent with CNS Contract clause B-10, Available Award Fee shall be calculated by reducing the relevant AFB by an exclusion factor[5] of 11.4%, then applying the applicable[6] award fee rate (AF%) to the resulting value: (AFB)*(1-0.114)*AF%.

Update for Enacted Budget:

The steps that were used to develop and reconcile the AFB at the beginning of the fiscal year will be reperformed using the Enacted Budget site splits and submitted to the Contracting Officer within 30 days from the day the Enacted Budget site splits are made available. In the event a budget is not enacted during the year, the cumulative budget approved through a Continuing Resolution or series of Continuing Resolutions shall control in its place.

Change Control Process:

Change Control for the AFB utilizes a subset of the Change Criteria included in CNS Enterprise Procedure E-PROC-3184, *Annual Controlled Baseline Change Control Process.* That E-PROC provides the process for

[5] Calculating pursuant to DEAR 970.1504-1-7

[6] Reference Section B of Contract No. DE-NA0001942 to obtain the applicable award fee rate for each contract line item number (CLIN).

CNS to identify, prepare, review, and internally approve, changes that under this framework will be compiled in a change control log to be submitted quarterly to the Contracting Officer within seven calendar days after the close of the quarter. A Baseline Change Request (BCR) with associated supporting documentation is the mechanism used to maintain and manage AFB changes.

The change criteria for the AFB will only include those changes that are driven by scope changes Directed and Approved by the NNSA Contracting Officer. Changes to work execution that are not associated with changes in the amount or character of the work, such as resources reallocation, will not be considered for changes to the AFB.

Scope/Funding Changes such as:

1. Increases or decreases in work scope
2. Funding changes (Scope driven)

Thresholds/Approval Levels:

The CNS E-PROC has 4 levels of approval for the ACB (see table below). For changes to the AFB, the NPO CO (Level 4) >$5,000K threshold will be used to compile and submit the change control log to the CO on a quarterly cycle. Changes below Level 4 will be excluded from the year-end plus or minus 10 percent threshold for additional AFB adjustment.

Table 1- BCR Approval Levels

BCR Approval Levels	
Approving Authority	**Threshold**
Program/Project Manager/Program Director/Functional Organization Manager (Level 1)	>$500K
Change Review Board (Level 2)	$500K - $2,500K
CMC Chairperson (Level 3)	$2,500K - $5,000K
NPO CO (Level 4)	**>$5,000K**

Figure 1- Change Control for AFB Purposes

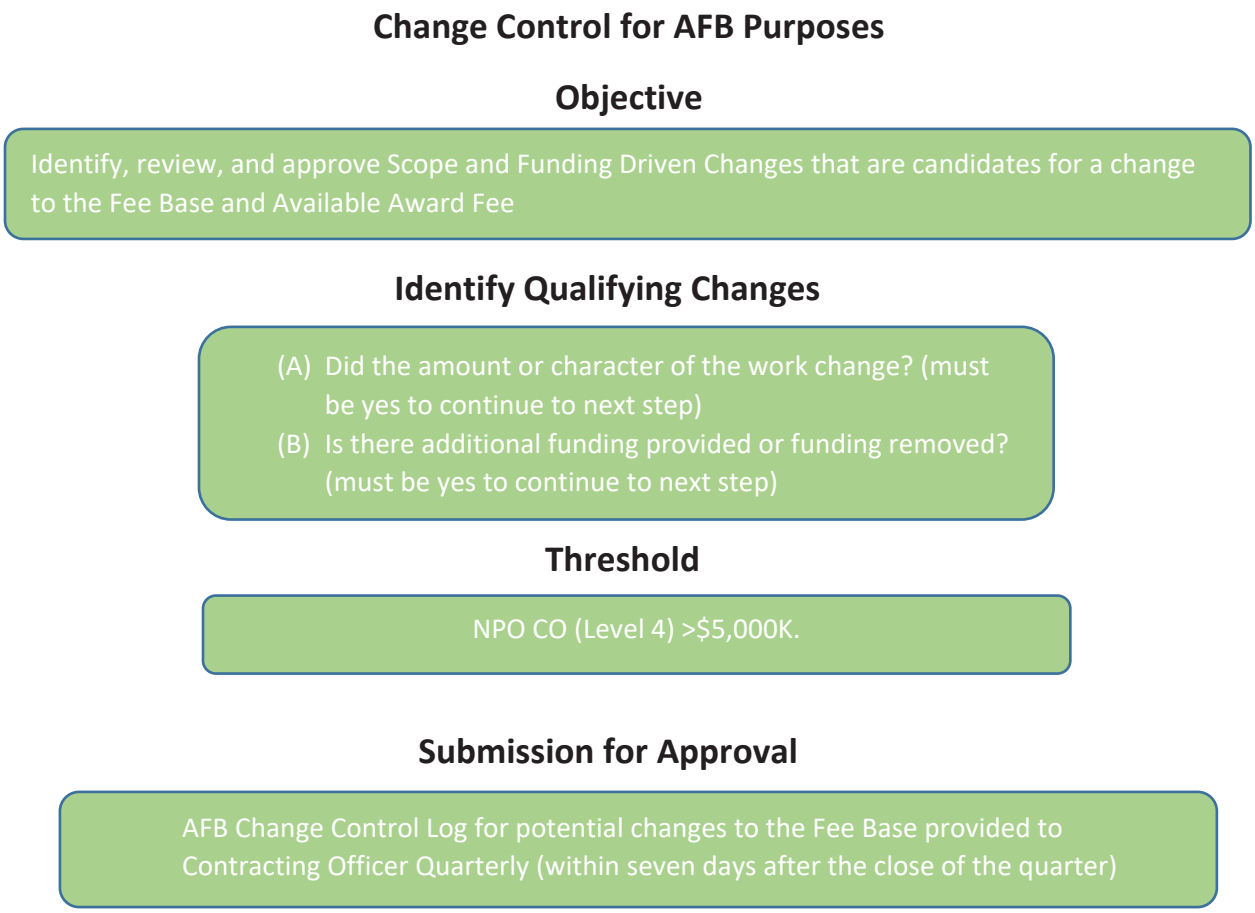
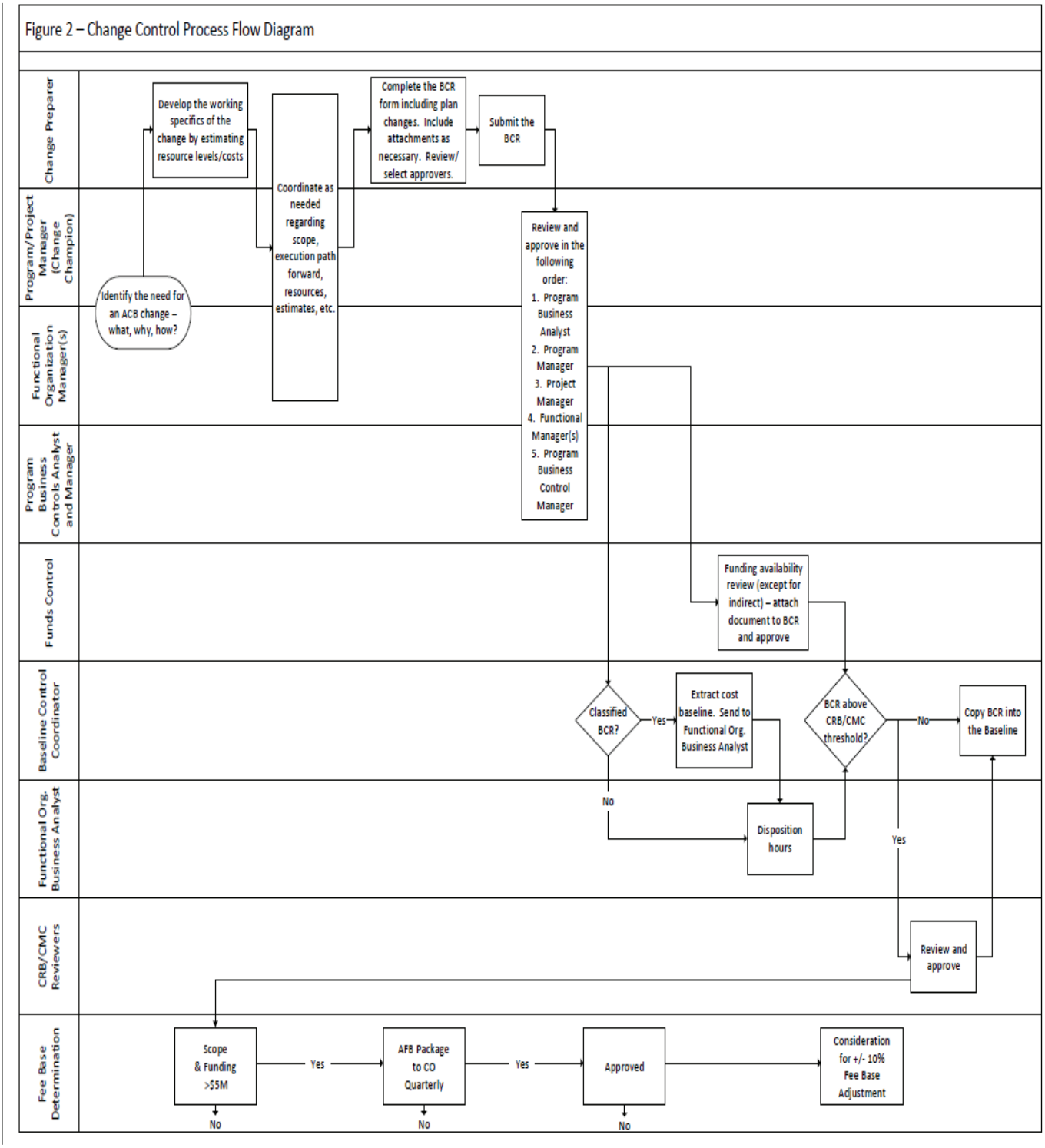


Figure 2 depicts the change control process for the ACB and AFB. The process flow illustrates the existing ACB change procedures and AFB change criteria subset referenced above. The AFB interaction is located in the bottom portion of the process flow.

Figure 2 – Change Control Process Flow Diagram



AFB Final Reconciliation and Adjustment:

The Available Award Fee will be adjusted via bilateral modification once each contract period at the time the AFB attributable to current year funding is updated and approved to reflect the enacted budget. The adjustment will be made using the fee base formula prescribed above. No other adjustment shall be made to the available award fee unless the approved year-end September 30th AFB reflects a plus or minus 10 percent change from the AFB based on the enacted budget. In accordance with the Changes Clause, the 10-percent change threshold shall apply only to material changes in the amount or character of work described in the Statement of Work.

If the year-end AFB reflects a plus or minus 10 percent change as described above, CNS will submit a package with reconciliation support for the Annual AFB Adjustment by October 15 of the subsequent fiscal year unless otherwise approved in advance by the Contracting Officer.

Figure 3 - Fee Base and Available Award Fee Calculation Template

	Phase	A	B	C	D	
Step	AFB Reconciliation for Fee Base and Available Award Fee	PBR	Enacted Budget	Change Control	Final ACB	Supporting Documentation and Notes
1	Budget Value (Site Split)	$ -	$ -	$ -	$ -	Site Split Table
2	Less Carryover if included in the PBR or Enacted Budget (unlikely)	$ -	$ -	$ -	$ -	Site Split Table
3	Plus Prior Year (PY) Prefunding & Continuing Ops Funding (PY funding planned for current year (CY) execution)	$ -	$ -	$ -	$ -	Funds Report to be developed
4	Less CY Prefunding & Continuing Ops Funding (CY funding planned for future year execution)					Funds Report to be developed
5	Less CY Budget for Work Performed by another Prime Contractor or Federal Agency (funding passthrough portion, if applicable)	$ -	$ -	$ -	$ -	Sitewide Requirements Report
6	Less Inter-Contractor Purchases placed with CNS by other DOE/NNSA contractors if included in the PBR or Enacted Budget (unlikely)	$ -	$ -	$ -	$ -	ICPs for CNS are treated as cash work and not in the PBR or Enacted Budget
7	Less Budget Attributable to Capital Projects with a Separate Fee Structure (e.g. UPF)	$ -	$ -	$ -	$ -	Site Split Table
8	Changes to Scope using Change Control Process	$ -	$ -	$ -	$ -	Change Control packages for Fee Base changes approved by the CO
9	Subtotal Budget Value less Reconciling Items (sum of 1 through 8)	$ -	$ -	$ -	$ -	Subtotal Step 9 = Total Net Cost with Fee included
10	M&O Budgeted Total Net Cost = AFB (this step applies the fee deduction formula to the subtotal to deduct the portion of the budget attributable to fee)	$ -	$ -	$ -	$ -	Subtotal Step 10 = Subtotal Step 9/(((1-.114)*AF%)+1)
11	M&O Estimated Fee Base (this step applies the fee exclusion rate to deduct the 11.4% exclusion rate)	$ -	$ -	$ -	$ -	Subtotal Step 11 = Subtotal Step 10*(1-.114)
12	Available Award Fee	$ -	$ -	$ -	$ -	
Inputs	Award Fee Rate (AF%) per Contract Section B Applicable CLIN	AF%	AF%	AF%	AF%	
	Exclusion Rate (DEAR Fee exclusions)	11.40%	11.40%	11.40%	11.40%	

Phases of AFB Reconciliation and Calculation

A Initial AFB based on PBR - present reconciliation adjustments to include detailed comments and substatiated by supporting documentation.

B Mandatory Adjustment to Refresh Based on Enacted Budget - present reconciliation adjustments to include detailed comments substantiated by supporting documentation.

C Further Adjustment subject to Change Control - change control packages, for scope funded by additional budget or carryover not included in a prior year fee base, as approved by the CO.

D Final AFB for Determination if +/- 10% change from Enacted Budget ACB.

Acronyms:

Acronym	Term
AFB	Annual Fee Baseline
ACB	Annual Controlled Baseline
CMC	Change Management Council
CNS	Consolidated Nuclear Security
CO	Contracting Officer
CRB	Change Review Board
NNSA	National Nuclear Security Administration
NPO	NNSA Production Office
PBR	President's Budget Request
SPP	Strategic Partnership Projects
UPF	Uranium Processing Facility