

**SECTION J  
APPENDIX A**

**STATEMENT OF WORK**

**DOE/NNSA Management and Operations  
Y-12 National Security Complex and Pantex Plant Sites**

**Table of Contents**

<b>SECTION J - APPENDIX A</b>	<b>i</b>
<b>CHAPTER I. OBJECTIVES, SCOPE, AND REQUIREMENTS</b>	<b>1</b>
1.0 Objective	1
2.0 Background	2
2.1 The NNSA Mission	2
2.2 The NNSA Organization	2
2.3 Location of Performance	2
3.0 Scope	3
3.1 Mission	3
3.2 Scope and Financial Management	5
3.3 Enterprise Success	6
4.0 Administrative and Technical Requirements	7
4.1 Integrated Safety Management (ISM), Integrated Safeguards and Security Management (ISSM), Environmental Management System (EMS), and Quality Assurance Systems (QAS)	7
4.2 Work Authorization (WA) System	7
4.3 Information Technology (IT)	7
4.4 Governance	10
4.5 Contractor Human Resources	12
4.6 Environmental Permits and Applications	13
4.7 Defense Nuclear Facilities Safety Board and Other Govt Agencies Support and Liaison	14
4.8 Interfaces with Other Site Users	14
4.9 Privacy Act System of Records	15
4.10 Cost Reduction	15
<b>CHAPTER II. WORK SCOPE STRUCTURE</b>	<b>15</b>
1.0 Programs	15
1.1 Defense Programs	15
1.2 Other NNSA Work	22
1.3 Strategic Partnership Programs (SPP) /Other Reimbursable Work	24
2.0 Functional Support	24
2.1 General Support	24
2.2 Mission Support	24
2.3 Site Specific Support	25
<b>CHAPTER III. HUMAN RESOURCES</b>	<b>25</b>
1.0 Definitions	25
2.0 Workforce Transition	25
2.1 Staffing Plan	25
2.2 Pay & Benefits	26
2.3 Incumbent Employees Right of First Refusal	26
2.4 Personnel Appendix	27

3.0 Compensation.....	27
3.1 Total Compensation System .....	27
3.2 Cash Compensation .....	28
3.3 Reports and Information: Compensation .....	31
4.0 Benefits .....	32
4.1 Establishment of New Benefit Plans and/or Changes to Existing Benefit Plans .....	32
4.2 Reports and Information: Benefits .....	34
4.3 Workers' Compensation .....	34
4.4 Pension Plans .....	34
4.5 Pension Management Plan (PMP).....	40
5.0 Labor Relations .....	40
6.0 Workforce Planning .....	42
6.1 Workforce Planning - General .....	42
6.2 Reductions in Contractor Employment – Workforce Restructuring .....	42
<b>CHAPTER IV. INTERFACES FOR URANIUM PROCESSING FACILITY .....</b>	<b>44</b>
1.0 Introduction.....	44
2.0 Roles of the Design Authority and Design Agent .....	44
3.0 Turnover and Operation of UPF .....	44
<b>CHAPTER V. CURRENT PROJECT STATUS .....</b>	<b>45</b>

## CHAPTER I. OBJECTIVES, SCOPE, AND REQUIREMENTS

### 1.0 Objective

The objective of this Contract is to obtain nuclear processing and production operations services along with other required services to support National Nuclear Security Administration (NNSA) and broader national security requirements assigned to the Pantex Plant and Y-12 National Security Complex sites. This objective specifically includes obtaining the nuclear operations services required to meet the stockpile requirements derived from the Nuclear Weapons Stockpile Plan (NWSP) updated and released by the President of the United States annually. The Contractor shall be fully responsible for the procurement, processing, manufacture, fabrication, staging, storage and disposition for high-hazard enriched uranium, depleted uranium, special nuclear material (SNM), other special materials, high-explosives and nuclear weapon assembly/disassembly functions along with the fabrication of components and final assemblies supporting laboratory and flight surveillance programs required for NNSA Stockpile Stewardship and Management Program activities directed by the Office of Defense Programs (DP). The Contractor shall be responsible for the management and operation of two major sites within the Nuclear Security Enterprise (NSE).

Furthermore, the Contractor shall directly support the NNSA Offices of Naval Reactors; Emergency Operations; Safety, Infrastructure and Operations; Defense Nuclear Security; Counterterrorism and Counterproliferation; and Defense Nuclear Nonproliferation 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, foreign Governments or privately owned organizations within legal and other formal established agreements on a non-interference basis with the DOE/NNSA workload.

This statement of work includes four Contract Line Item Numbers (CLINs). CLIN 0001 covers contract transition. CLIN 0002 covers the management and operation of the Pantex Plant (Pantex) and the Y-12 National Security Complex (Y-12). CLIN 0003 covers Strategic Partnership Projects (SPP). CLIN 0004 and its Sub-CLINS cover capital construction projects at both Y-12 and Pantex.

In addition to achieving Presidential goals outlined in the February 2018 Nuclear Posture Review, this Contract will fully support the DOE and NNSA Strategic Vision and will support NNSA's management of a fully integrated, interdependent, and effective NSE, consisting of all eight NNSA sites, by achieving the following five specific objectives:

- (i) Improving performance of these two sites in the overall completion of national security missions for nuclear production operations, surveillance, and assembly/disassembly/disposition operations;
- (ii) Managing operations at two geographically-dispersed centers of excellence for: nuclear weapon assembly/disassembly/disposition; high-explosive production operations; enriched and depleted uranium; stockpile surveillance operations, SNM; and other special materials under a single Contract;
- (iii) Build and strengthen commercial partnerships to develop and deploy new technologies, and reduce risk to mission delivery;

- (iv) Reducing the lifecycle cost of performing work; and
- (v) Supporting actions that create an integrated DOE/NNSA enterprise.

This Contract does not affect the physical location or mission of nuclear production centers 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 nuclear 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 consists of multiple mission offices - the Offices of Defense Programs; Defense Nuclear Nonproliferation; Naval Reactors; Emergency Operations; Safety, Infrastructure and Operations; Defense Nuclear Security; and Counterterrorism and Counterproliferation - and various mission support offices such as the Offices of Policy; Acquisition and Project Management; Information Management; Cost Estimating and Program Evaluation, and Management and Budget. These offices work closely with NNSA Field Offices to execute and oversee the NNSA mission across the Nuclear Security Enterprise (NSE) which includes the various site and headquarters locations.

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 wide-ranging mission goals including the Stockpile Stewardship Program managed by Defense Programs, which comprises operations associated with logistics, surveillance, assessment, maintenance, surety, refurbishment, modernization, manufacture and dismantlement of the nuclear weapons stockpile as well as research, development, qualification, and certification efforts.

### **2.3 Principal Locations 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:

**2.3.1 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 370 buildings with approximately 6,070,000 gross square feet (gsf).

Another 1,790,000 gsf are facilities that are the responsibility of the Office of Science, Office of Nuclear Energy, or the Office of Environmental Management. The Y-12 facilities are primarily located in a single valley of approximately 800 acres.

**2.3.2 Pantex Plant (PX):** PX is a Government-owned site located near Amarillo, Texas, on approximately 9,100 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 17,460 acres. The facilities on the site consist of 602 buildings comprising approximately 3,444,000 gsf.

### **3.0 Scope**

This Contract is comprehensive with an objective to perform all necessary operational, coordination, and management functions at Y-12 and PX 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 and state-of-the-art cybersecurity protocols and applications; human resource management including critical skills recruitment, training, and retention; environmental management; health, safety and security systems; armed protective forces; 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 capability and capacity necessary to produce at rates defined in NNSA directive and planning documents; and implement flexible and resilient production management and execution processes to accommodate a dynamic national security environment. The Contractor shall balance risk management and lifecycle cost reduction to provide increased value to the Government. This includes leveraging commercial partnerships to reduce risk and improve mission delivery. This applies both internally to this Contract and contributing to the overall cost efficiency of the NSE.

The Contractor shall be fully responsible and accountable for the safe, reliable and secure accomplishment of all work regardless of the location of performance, whether performed by its own personnel or team members, subcontractors, staff augmentation, Inter-Entity Work Order, or other agreement or arrangement. The Contractor shall be responsible for performance of analyses requested by Program offices, planning and coordinating production and modernization schedules; integrating, managing and executing the programs; supporting and executing large and small projects; working collaboratively with national laboratories to develop and deploy modern and essential technologies and capabilities; and completing operations and other activities as described in this Statement of Work and Work Authorizations issued by the Contracting Officer.

### 3.1 Mission

The Contractor shall safely, securely, reliably and with high quality standards complete all mission responsibilities and improve overall performance in the completion of national security missions for nuclear production, surveillance and assembly/disassembly operations and other designated national security missions, at these two sites. NNSA has a Work Breakdown Structure (WBS) that is discussed further in Section J, Appendix P. At a minimum, the Contractor shall:

- (i) Sustain the necessary workforce and exercise essential capabilities and capacities for: procurement of materials and services; nuclear production; nuclear weapon assembly/disassembly/disposition; surveillance operations; recycle operations; the production and component fabrication for: high-explosives, enriched and depleted uranium, uranium alloys, lithium, and special materials; and the management of SNM at each of the respective sites.
- (ii) Develop, jointly with the NNSA Program offices and National Laboratories, the authorization basis to perform high-hazard operations;
- (iii) Implement and maintain authorization basis to perform high-hazard operations;
- (iv) Operate high-hazard chemical processing, material manufacturing, weapon assembly/disassembly facilities and their systems within the approved authorization basis;
- (v) Maintain security for PL-1 through PL-8 facilities and assets as defined in Departmental Safeguards and Security policies and orders;
- (vi) Assure the availability of core capabilities and minimum necessary capacity, regardless of stockpile size as required by site mission;
- (vii) Implement and oversee the nuclear explosive and weapons surety program to include nuclear weapon/nuclear explosive safety, security, use denial, and use control;
- (viii) Sustain and modernize site infrastructure, facilities, processes, and equipment to reduce risk to mission delivery and improve efficiency;
- (ix) Manage numerous small and large projects, including capital construction, major items of equipment, and information technology projects from conception through design and execution to operational readiness;
- (x) Interface and integrate with and support other contractors performing work at any of the NSE sites;
- (xi) Balance available resources to meet mission requirements and infrastructure sustainment while maintaining safe, secure, reliable, high quality, environmentally compliant and resilient operations; and

- (xii) Effectively partner with other contractors within the NSE to support the master production schedule by managing all production activities at the two sites and be responsible for the execution of uranium, lithium, special materials, SNM, high explosives, nuclear weapons assembly/disassembly/disposition, dismantlement, and surveillance functions in support of the Stockpile Stewardship Program. In performing this responsibility, issues between the NSE contractors will be brought to NNSA management for resolution.
- (xiii) Maintain a Nuclear Enterprise Assurance program to reduce the risk of subversion of the U.S. nuclear weapons stockpile and equipment or its supporting Nuclear Security Enterprise (NSE) by a sophisticated and well-resourced adversary.

### 3.2 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
  - Budget Data and Information Systems. The budget information shall be collected in accordance with the Work Breakdown Structure (WBS) (see Section J, Appendix P)
- Facilities Information Management System (FIMS)
- NNSA Integrated Data Warehouse (IDW)

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 S, *Program Management and Cost Reports*). The Contractor's financial cost reporting systems shall support the DOE STARS, iMANAGE, Budget 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 during the Transition Period of the Contract. This information will include an Annual Controlled Baseline (ACB) for use during the first fiscal year of execution and the methodology used to create the ACB. The Contractor will provide their updated baseline methodology for Contracting Officer approval 180

days after contract award unless otherwise agreed to by the Contracting Officer. For subsequent fiscal years, the Contractor shall develop an ACB for all Contractor direct programs and indirect support costs, aligned with the Work Breakdown Structure (WBS) for further granularity. The baseline will be constructed at a level that provides the ability to report the baseline and any changes to the baseline, programmatically and by resource organization. The baseline shall include cost, scope of work, and schedule and be fully consistent with directive and planning documents, budget requests, and progress reporting such as earned value management systems. The ACB will be under configuration management and control, with all changes formally documented. The ACB 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 and any changes to the ACB should be based on changes in scope or formal direction from NNSA. The ACB will be submitted annually by August 15<sup>th</sup> unless otherwise agreed to in advance by the Contracting Officer. Administrative changes initiated by the Contractor should be net zero cost changes or otherwise must be approved by the Contracting Officer.

The Contractor shall have in place systems and tools to: (1) manage mission and indirect changes in scope, cost, and schedule; (2) compare actual cost of work performed (ACWP) to budgeted cost of work performed (BCWP) and budgeted cost of work scheduled (BCWS); (3) accurately forecast estimate to complete (ETC) and estimate 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. Changes shall be minimal and limited to changes outside the Contractor's control. 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.

### **3.3 Enterprise Success**

The Contractor shall participate with NNSA and other NNSA M&O contractors in developing, evaluating, planning, and implementing strategic initiative activities that optimize mission and business operations across the NSE. The goal of these initiatives is to increase the overall efficiency and cost effectiveness of the NSE from a business and mission perspective, to include:

- Reduced operational site costs and enterprise-wide impacts,
- Improved work practices and operational processes at sites,
- Better pricing, better products, more timely delivery,
- Reduced administrative costs and lead times for both the Contractor and the DOE/NNSA,
- Optimization to increase efficiencies at sites and reducing operational redundancies across the NSE; and
- Increased awards to small business entities.

NNSA expects these and other initiatives to result in operational improvements, increased resiliency, and efficiency gains within the NSE.



The Contractor shall team with the other NNSA and NSE contractors in identifying potential cross-NSE benefits to be derived from sharing lessons learned, benchmarking, and best practices to benefit the NSE in the areas of mission workload and enterprise functional support.

#### **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) accurately reflects timely and relevant Contractor integrated performance data related to these systems and their impacts to mission success.

##### **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, NNSA Supplemental Directive 412.1, and the Contract's Section I Clause entitled "DEAR 970.5211-1, *Work Authorization*."

##### **4.3 Information Technology (IT)**

The NNSA seeks to deliver a modern, secure computing environment that improves communication and aligns the current and future IT service delivery model. The enterprise-wide IT modernizations initiative will provide innovative ways to consume, leverage, share, and safeguard information assets. It is the goal of the overall NNSA cyber posture to enhance secure and accessible IT solutions within and across NNSA sites. Additionally, NNSA will identify and evaluate emerging technologies that can be used to strengthen NNSA's cyber defenses by ensuring data confidentiality, integrity, and availability; and implement technology designs that provide effective network monitoring, limit an intruder's ability to traverse the network and mitigate new vulnerabilities in a timely manner. The Contractor shall develop enhanced information security protection tools for information systems, applications, and networks within both classified and unclassified environments; and ensure compliance with NNSA's defense-in-depth cybersecurity strategy. NNSA 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 both sites, and align with NA-IM enterprise activities. To accomplish these goals, the Contractor must evaluate and 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, 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 will be compatible with those used by NNSA entities across the broader nuclear security enterprise, and will include

seamless functionality between the Y-12 and PX sites.

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; 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 must meet all FITARA reporting requirements and have a Chief Information Officer (CIO) authorized to perform FITARA approval and reporting as established under the NNSA FITARA Guidance. As such:

- All IT will be acquired in accordance with FITARA requirements in OMB Memorandum M-15-14 and NNSA delegated authorities as outlined in NNSA FITARA Implementation Framework and in policies SD 201.1 and SD 415.1A.
- The Contractor will identify a CIO with authority to acquire all IT and cyber security enterprise-wide up to \$5 million.
- The Contractor will create an IT Governance (type) Board to include the CIO and heads of business units so that all IT and cybersecurity procured site-wide (both within the CIO's immediate purview and outside, including line item capital projects and infrastructure projects with IT and cyber components – regardless of funding source) will have the CIO's approval and concurrence/awareness.
- The Contractor will design, mature, and execute an acquisition process to ensure the FITARA compliance.
- All IT procured by the Contractor shall be appropriately identified, coded, and accounted for in the KC Supply Chain Management Center (SCMC) reporting.
- The Contractor shall not build or increase the footprint of any data center in accordance with OMB Data Center Optimization Initiative (DCOI) M-16-19 requirements unless NNSA OCIO is first notified and the Contractor receives approval from the Contracting Officer and the Contracting Officer's Representative.

The Contractor will follow the guidance and objectives as set forth in the NNSA Corporate Performance Evaluation Process (CPEP), Strategic Performance Execution Management Plan (PEMP) and the NA-IM IT and Cyber Performance Execution Guidance (PEG). The Contractor will participate and comply with the FITARA and Cyber Site Assessment Visits (SAVs), project and program deep dives, and any other audits or investigations. The Contractor will adhere to the oversight and recommendations provided by the NNSA Investment Review Board (IRB).

All IT will be reported in the Contractor's IT Portfolio of Investments, structured as required by the Technology Business Management (TBM) Framework, and submitted on the IT Dashboard via OMB's monthly and annual CPIC reporting. The Contractor will respond to all IT data calls, audit inquiries, and other data gathering requests. The Contractor will provide IT project management documentation, IT and Cyber PEG artifacts, and any other reports requested by NNSA.

All Information Technology shall be identified as defined in title 40 U.S. Subtitle III

Code 111101 and furthered enumerated in OMB Memorandum M-15-14

In determining IT amongst specialized equipment and machinery, everything within an accreditation boundary shall be considered IT.

The Contractor, prior to using any Contractor- or Parent-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. Until the government replaces, or no longer needs the Contractor-owned software, the Contractor will provide current/security updates at no cost. If proprietary hardware is incorporated, the contractor will provide maintenance and operational support for a minimum of 10 years upon end of the contract, at cost, or until the government replaces or no longer needs the hardware.

The Contractor and all subcontractors are subject to and must meet NIST Special Publication 800-171 "Protecting Controlled Unclassified Information in Nonfederal Information systems and Organization" requirements, when conducting work for the federal government. These systems are subject to review and validation of requirements by a designated NNSA inspection team. The Contractor is accountable for issues associated with these contracting activities.

- 43.1 Cyber Security:** In accordance with current versions of DOE O 205.1, NNSA SD 205.1, associated Presidential Directives (PDs), National Institute Standards and Technology (NIST) and Committee on National Security Systems (CNSS) requirements, the NNSA Cybersecurity 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 cybersecurity program including a cybersecurity architecture aligned with the NNSA cybersecurity program, enterprise architecture and plans of the NNSA Office of the Chief Information Officer. The Contractor shall conduct cyber security operations to meet the requirements of Federal, DOE, and NNSA Data protection and Cyber Security program at all respective security classification levels (i.e. TS//SI//RD//FRD) and caveats (i.e. (UC//NI//PII//HIPAA)), at all times, and as provided and authorized by the federally appointed authorizing official, or enterprise authorizing official if site official is not appointed/available. This will include meeting all Department of Homeland Security (DHS) binding operational directives (BODs), as directed, and urgent security concerns provided by the OCIO. The Contractor shall allow full, unfettered access to security logs and cyber security sensor data to the NNSA monitoring activity (currently the Information Assurance and Response Center (IARC)), and other entities as formally directed by the NNSA CIO ensuring cyber security situational awareness for the NSE. The Contractor shall follow the NNSA SD 205.1 (current version) for implementation of a cybersecurity baseline

program and provide adequate performance metrics to generate a risk-based budget process for the NSE. The Contractor will develop an Annual Operating Plan (AOP) consistent with NNSA OCIO guidance and will perform to the annual NNSA OCIO Performance Execution Guide (PEG). The utilization of COMSEC must comply with all federal requirements as given by NSA and CNSS, and associated program requirements within the DOE Technical Security Program (TSP) and NNSA TSP. All wireless activities must be reviewed and evaluated by a federal Certified TEMPEST Technical Authority (CTTA), and associated TEMPEST plans must be kept current. The Contractor shall fully integrate the enterprise eGRC tool (currently RSA Archer), adjusting processes to coincide with out of the box implementation, and transition off of the standalone platform currently in place to the enterprise cloud instance as it is stood up. The Contractor shall utilize enterprise approved documentation to the fullest ability.

The Contractor and all subcontractors are subject to and must meet NIST Special Publication 800-171 “Protecting Controlled Unclassified Information in Nonfederal Information systems and Organization” requirements, when conducting work for the federal government. These systems are subject to review and validation of requirements by a designated NNSA inspection team. The Contractor is accountable for issues associated with these contracting activities.

#### 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 (such as DOE Order 226.1B and NNSA Supplemental Directive 226.1C, or successor documents, included in Section J, Appendix B, *List of Applicable Directives*).

Contractors must self-govern and deliver high-quality mission results in a safe, reliable 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 improve efficiency 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 implement 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 fully integrated and effectively met; ensure that workers, the public and the environment are protected; and ensure

that operations, facilities, and business systems are efficiently and effectively operated, maintained, and protected. 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.

- 44.2 Standards and Directives Reform:** The Contractor shall submit a plan within 180 days after the start of Base Period 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.
- 44.3 Parent Organization(s):** The Contractor shall develop, at a date established by the Contracting Officer with input from the Contractor, a multi-year Parent Oversight Plan that details (1) its planned efforts and expected accomplishments by year, to continuously support the M&O in improving its management and performance, and (2) the planned efforts and contributions of its Parent Organizations. The Parent Oversight Plan shall be subject to approval by the Contracting Officer, and the Contracting Officer may require an updated Parent Oversight Plan supplement to address specific issues at any time during performance of the contract. The Contractor shall also provide an Annual Oversight Plan (Annual Plan) from its Governing Board detailing the activities expected to be conducted during the year (if applicable) and the estimated costs of those activities, which shall be submitted 60 days prior to each fiscal year for Contracting Officer approval. The Annual Plan shall also identify the Board's annual activities to: (1) monitor the Contractor's performance of Statement of Work activities including Contractor Assurance System performance and (2) to assist the Contractor in meeting NNSA's mission and operational requirements. Elements of the Parent Oversight or Annual Plan may be incorporated into the Contractor's Performance Evaluation and Measurement 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. The plan shall include a cost estimate and supporting information such as approved indirect rate agreements. 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.

**44.4 Performance Evaluation and Measurement Plan:** The Contractor shall participate in the formulation of Performance Evaluation and Management Plans (PEMP) that covers a defined period of time. The PEMP shall include performance goals, objectives, and key outcomes, and may include other measures of performance as developed by NNSA as a part of its Corporate Performance Evaluation Process (CPEP).

**44.5 Performance Metrics:** The Contractor shall propose a list of performance metrics that provide Contractor and NNSA management an overall assessment of mission execution and the "health of the supporting operations" 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, *Statement of Work*, 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) The Contractor shall assist in the NNSA's National Environmental Policy Act (NEPA) implementation, in a manner consistent and compliant with federal law and regulations (including DOE regulations at 10 CFR 1021) and the NNSA NEPA program as implemented by the NEPA Compliance Officer (NCO), or as may otherwise be directed by the Contracting Officer. The Contractor is not authorized to undertake any action on NNSA's behalf that is subject to the National Environmental Policy Act (NEPA) until NNSA has notified the Contractor that the NNSA has satisfied applicable NEPA requirements. Additionally, the Contractor shall implement an auditable system of internal controls to ensure that NEPA reviews are completed before decisions are made on the implementation or performance of proposed programs, projects, or other activities. The Contractor shall perform an annual performance assessment on the internal NEPA completion controls compliance; report the results to the head of the program or field office; provide access to all data and analyses associated with NEPA compliance activities; and report, as required by the appropriate NEPA Compliance Officer, on issues and activities that may require NEPA reviews.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (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.

- (vi) Environmental Construction Permits related to the UPF Project will be jointly developed, maintained, and approved by the Contractor, the CNS UPF Project Director, and NNSA. The Contractor shall provide the interfaces/services as agreed to in Appendix Q developed for the UPF project.

#### **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 two primary sites, there are multiple contractors responsible for a variety of broad-based programs. Within 90 calendar days after the start of the Transition Period, the Contractor shall submit, for Contracting Officer approval, an Interface Management Plan (IMP) for the affected sites to identify and manage all site interfaces/services between DOE, NNSA, DOE/NNSA contractors, and tenant entities engaged in onsite activities. The IMP will also incorporate contractors and subcontractors to these entities, as directed by the Contracting Officer. The IMP should identify any costs related to other site users. Services may be provided by the Contractor on a cost recoverable basis as approved by the Contracting Officer. The IMP shall also address security in accordance with Section J, Appendix A, *Statement of Work*, Chapter II, 1.2.5, Defense Nuclear Security. The Contractor IMP(s) will become part of the Contract as Section J, Appendix K, *Interface Management Plan*. The Contractor shall be responsible for developing and implementing a plan for interfacing and integrating activities with other site contractors and tenant entities consistent with DOE technical direction. 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 NNSA Production 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 that is not adequately mitigated to the satisfaction of the Contracting Officer in an approved OCI mitigation plan.

The UPF Project interfaces/services will be jointly developed, maintained, and approved by the Contractor, the CNS UPF Project Director, and NNSA and codified as an appendix in the contract. The Contractor shall provide the interfaces/services as agreed to in Appendix Q, *UPF Interface Management Plan*, developed for the UPF project. Within 30 calendar days after the start of the Transition Period, the Contractor shall submit, for Contracting Officer approval, the UPF Interface Management Plan.



#### 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 prepare and submit Cost Reduction Proposals (CRPs) in accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, *Cost Reduction*" where opportunities for reducing the cost over the lifecycle of operations are identified. The Contracting Officer may accept or reject the CRPs.

## CHAPTER II. WORK SCOPE STRUCTURE

### 1.0 Programs

The Contractor shall support the following program activities:

#### 1.1 Weapons Activity

**Stockpile Requirements:** The National Nuclear Security Administration Act (50 U.S.C. § 2401, *et seq.*) directs DOE/NNSA, "To maintain and enhance the safety, reliability, and performance of the U.S. nuclear weapons stockpile, including the ability to design, produce, and test, to meet national security requirements." The required stockpile levels are identified in the annual NWSP and codified by the President through the issuance of a National Security Presidential Memorandum. The NWSP specifies the size and composition of the stockpile for a projected multiyear period, generally the Future Years Defense Program (FYDP) and Future Years Nuclear Security Program (FYNSP) periods, which the United States needs to maintain to ensure a credible deterrent. Additionally, supplemental policy related to the employment of the Nation's nuclear capability is provided in other applicable Presidential Policy Directives and National Security Presidential Memoranda. The weapons activity, within NNSA, is specifically tasked with the responsibility to maintain a safe, secure, and effective stockpile for the Nation's nuclear deterrent without using underground testing. Within the weapons activity construct, Defense Programs (DP) is responsible for assuring that the requisite nuclear warheads, bombs, and weapons related materials and components are available for the Department of Defense (DoD) for deployment on specified weapon systems in accordance with Presidential direction. The weapons activity consists of following DP Offices: Stockpile Research, Technology, and Engineering; Stockpile Management; Production Modernization; and Secure Transportation Asset. Along with the NNSA Offices of Infrastructure and Operations; Defense Nuclear Security; and Information Technology and Cybersecurity.

**1.1.1 Defense Programs:** Within DP, the types of activities include, but are not limited to, stockpile research, technology, and engineering; stockpile management; and secure transportation.

**1.1.1.1 Stockpile Research, Technology, and Engineering.** This office

provides the foundation for science-based stockpile decisions, tools, and components; focuses on the most pressing investments the nuclear security enterprise needs to meet DOD warhead needs and schedules; and enables assessment and certification capabilities used throughout the NSE. The program provides the knowledge and expertise needed to maintain confidence in the nuclear stockpile without additional nuclear explosive testing.

**1.1.1.1.1 Weapon Technology and Manufacturing Maturation:**

Technology Maturation is the focused efforts to address critical capabilities needed to achieve key future program objectives. Technology Maturation activities are technically challenging, multi-function efforts that have definitive milestones and specific work plans. Projected work scope within this program includes, but is not limited to:

1.1.1.1.1.1 Support advanced technology projects in support of the NSE such as lithium technologies, microwave deployment, wet chemistry replacement, specific oxide replacement, and high explosives development;

1.1.1.1.1.2 Supporting the transition of designated technology projects to production.

1.1.1.1.2 Each production site can be requested to perform research, development, testing, and engineering work for the current and future weapon systems and fabrication of development and test hardware in support of the national laboratories which consume part of the site's capacity.

**1.1.1.2 Stockpile Management.** This office maintains a safe, secure, and effective nuclear weapon stockpile through stockpile major modernization, stockpile sustainment, weapons dismantlement and disposition, and production operations support programs.

**1.1.1.2.1 Stockpile Modernization** is where all the approved warhead acquisition program are conducted. The programs are necessary to extend the expected life of stockpile systems for an additional 20 to 30 years. Projected work scope includes, but is not limited to:

1.1.1.2.1.1 Meet current Life Extension Programs (LEP) deliverables inclusive of component assemblies, subassemblies, piece parts; initiation of and maintenance of assembly, disassembly, and surveillance operations; shipping container provisioning, shipments to other NSE sites,

and shipment and receipt of nuclear weapons from DOD (B61-12, W88 ALT 370);

1.1.1.2.1.2 Support planning and development for upcoming and future LEPs and weapon programs (W80-4, SLCM, W87-1, W93).

1.1.1.2.2 **Stockpile Sustainment** executes maintenance, surveillance, assessment, surety, and management activities for all enduring weapons systems in the stockpile. Projected work scope includes, but is not limited to:

1.1.1.2.2.1 Meet requirements and schedules defined in Program Directive Documents inclusive of component assemblies, subassemblies, piece parts; initiation of and maintenance of assembly, disassembly, and surveillance operations; container provisioning, shipments to other NSE sites, and shipment and receipt of nuclear weapons from DOD (B61, W76, W78, W80, B83, W84, W87, and W88 );

1.1.1.2.2.2 Provide 800-1200 weapon systems equivalent unit operations per year for assembly/disassembly for: (1) surveillance sample disassembly and rebuild, LEP and replacement warhead production, and dismantlement; (2) Joint Test Assemblies (JTA) and Test Beds; and (3) Limited Life Component Exchanges (LLCEs). [The W76 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.] (B61, W76, W78, W80, B83, W84, W87, and W88).

1.1.1.2.3 **Weapons Dismantlement and Disposition** which includes retired weapons disassembly, recycle of material and hardware for other applications, disposition of retired excess weapons components, and ensuring the on-going safety of retired systems through testing prior to their dismantlement. Projected work scope includes, but is not limited to:

1.1.1.2.3.1 Meet requirements and schedules defined in Program Directive Documents inclusive of initiation of and maintenance of dismantlement operations, safety testing, and disposal of components; container

provisioning, shipments to other NSE sites, and shipment and receipt of nuclear weapons from DOD (B61, W76, W78, W80, B83, W84, W87, and W88 );

1.1.1.2.3.2 Interim staging of SNM components;

1.1.1.2.3.3 Disposition of excess legacy components from weapons activities.

1.1.1.2.4 **Production Operations** which provides engineering and manufacturing labor, quality assurance, and programmatic equipment support for the manufacturing base that enables the individual site capability and capacity to sustain the NSE's production mission. Enables modernization of existing production capabilities to improve efficiency and resilience. These areas include but are not limited to:

1.1.1.2.4.1 **Engineering Operations** are internal plant-wide activities that establish product process flows and improvements, develop and maintain operating procedures, determine critical design parameter and manufacturing process capabilities, establish process controls, metrics and quality indices, and establish and maintain process safety controls/assessments;

1.1.1.2.4.2 **Manufacturing Operations** are activities that manage and provide oversight to manufacturing departments and all internal non-weapon-type specific manufacturing operations and processes, material controls, supervision, planning and scheduling, inventory control, packaging, shipping and procurement, internal production-related transportation, and internal production related safety activities. It also includes classified manufacturing operations that cannot be associated with a particular warhead;

1.1.1.2.4.3 **Quality Supervision and Control** includes activities dealing with quality control, supervision of general in-line inspection and radiography, procedures development and execution, process control certification for Mark Quality products, measurement standards and calibration techniques, calibration of equipment, tooling, gages and testers, and Quality Assurance-related equipment/processes for certification;

1.1.1.2.4.4 **Tool, Gauge, and Equipment Services** are

activities that include preparation of specifications and designs for non-weapon-type specific tooling including tools, gages, jigs and fixtures and test equipment, as well as design and development of tester software including tester control and product assurance. This category also includes work related to verification/qualification of hardware and software, procurement processes, and maintenance, both corrective and preventative that directly support production-related equipment/process components;

1.1.1.2.4.5 **Electronic Product Flow** activities include planning, engineering, supplier management, and logistics activities associated with the materials supply chain;

1.1.1.2.4.6 **Purchasing, Shipping, and Material Management** activities include internal plant-wide purchase, design, development, installation, configuration, testing, training, and maintenance of classified and unclassified computer systems including hardware and software. These activities are directly linked to the performance of site-specific production functions, but are separate and distinct from general-use administrative and office-automated systems. Supported systems in both unclassified and classified environments enable manufacturing and quality assurance functions.

1.1.1.3 **Secure Transportation Asset:** This is the mechanism for the movement of weapons and materials between NNSA and DOD sites. Key facilities are located near Amarillo, Texas and Oak Ridge, Tennessee. Support under this Contract shall include maintenance of facilities, vehicle maintenance and support, and other activities.

1.1.1.4 **Production Modernization (PM):** The NNSA uranium, lithium, and special materials capabilities at Y-12 are critical to meeting national security requirements for the nuclear stockpile, naval reactors, and nuclear-nonproliferation. Within Production Modernization are the Enriched Uranium Modernization, Depleted Uranium Modernization, Lithium Modernization, High Explosives, and Special Material Programs. These Programs are responsible for modernizing critical material production and processing capabilities and capacities are adequate to meet NNSA's strategy and program of record. Types of activities to support these Programs include, but are not limited to, restart of select dormant capabilities, major capital

acquisitions, MIE, numerous small projects, new technology development and deployment, operations of process equipment, and managing the transition out of legacy production facilities. Major initiatives include transition of Building 9212 operations to other facilities; design, construction, and operation of the Uranium Process Facility (UPF is performed by others as described in Chapter IV) and Lithium Processing Facility; restart and modernization of depleted uranium operations, and initiation of new capabilities and processes. Other major initiatives include design, construction, and operation of High Explosives Science and Engineering Facility and High Explosive Synthesis, Formulation, and Production Facility. Major ongoing activities include nuclear material recycle and recovery; installation of new technologies or capabilities like electro-refining, calcining, and direct chip melt; maturing of new essential technologies like binary direct casting and special material processing and machining; and identifying and maturing technologies that may improve material efficiency like cold hearth melting and additive manufacturing.

- 1.1.2 Infrastructure and Operations:** Infrastructure and Operations provides the physical and operational infrastructure required to conduct the scientific, technical, and manufacturing activities of the Stockpile Stewardship Program. The I&O 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 I&O 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), Lithium, SNM and other materials). 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) Maintaining facilities to execute DOE/NNSA missions;
- (iv) Project Management
  - A. The Contractor shall perform design and construction activities for all minor construction Expense and General Plant Projects. New major construction projects, 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, including IT related 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 (NEPA) 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 Capital Projects covered by this Contract include, but are not limited to:
    - Lithium Processing Facility (LFP)
    - High Explosive Science and Engineering Facility (HESEF)
    - High Explosive Synthesis, Formulation and Production Facility (HESFPF)
    - West End Protected Area Reduction Project (WEPAR)
    - Fire Station
    - Emergency Operations Center (EOC)
    - The status of Line Item Projects is described further in Chapter V, below
  - F. Major Items of Equipment (MIE) projects covered by this Contract include, but are not limited to:
    - Electrorefiner
    - Calciner
    - The status of MIE Projects is described further in Chapter V, below
  - G. Interface support provided by Contractor under this contract for Capital Construction Projects include, but are not limited to:
    - Uranium Processing Facility (UPF), see Chapter IV of this SOW
    - Consolidated Nuclear Security, LLC, NNSA contractor
- (v) Manage and disposition waste generated at the sites;
- (vi) Safe and secure storage, management, and disposition of nuclear and non-nuclear materials (weapon and test assemblies, pit staging, mark quality materiel storage, enriched uranium, Li6, heavy water, plutonium) and satisfy NNSA and other DOE

customer material requirements;

- (vii) 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;
- (viii) Maintain and deliver containers according to Shipment Schedules in support of DSW and other missions; and
- (ix) Support footprint reduction efforts at the sites.
- (x) Operate the Wind Energy System (Pantex Wind Farm) as part of the Pantex Renewable Energy Project (PREP).
- (xi) Execute the Long Term Stewardship program to meet NNSA and regulatory requirements.

## 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) Overseeing chilling and heating projects under the Enterprise-wide Chilling and Heating Management Program;
- (iii) Completing recapitalization and deferred maintenance projects, including Extended Life Plans for enduring facilities;
- (iv) Completing facility demolition projects; and
- (v) 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 Nonproliferation:** 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 nonproliferation and international security requirements;
- (iv) Partner with DOE/NNSA laboratories to leverage resources and expertise in support of nuclear nonproliferation goals and objectives;
- (v) Support of global nonproliferation activities; and
- (vi) Complete 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.

The Contractor shall interface, as directed by the CO, with other contractors that perform safeguards and security work within the Oak Ridge Reservation. In addition, 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 “Design Basis Threat” DOE O 470.3C *Design Basis Threat Policy (DBT)*. 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 Oak Ridge Reservation, the Contractor shall develop and conduct site-specific training curricula through coordination with the affected contractors.

### **1.3 Strategic Partnership Programs (SPP) / Other Reimbursable Work**

This includes the management and execution of other assigned programs related to national security missions for DOE, other Government agencies, foreign governments, 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, the Contractor shall 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. The Contractor shall also 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, the Contractor will 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;
- (v) DOE New Brunswick Laboratory (NBL); and
- (vi) DOE Weapons Evaluation Test Laboratory (WETL) operations operated by SNL.

### **2.3 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 Consolidated Nuclear Security (CNS), LLC under Contract DE- NA0001942, as of the day preceding the first day of the Base Period of the Contract.

Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor on or after the first day of the Base Period of the Contract.

### **2.0 Workforce Transition**

The following are requirements the Contractor shall carry out during the Transition Period, prior to the beginning of the Base Period. After the start of the Transition Period 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, Personnel Appendix (Section J, Appendix D). 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 start of the Transition Period 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. This staffing plan shall highlight essential skills and personnel that must be retained, by position, to ensure continuity of essential mission, safety, security, and safeguards programs.

## **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 Contracting Officer approval a pay and benefits program to cover non-bargaining unit employees at Pantex and Y-12. It is expected that the benefits program will be developed utilizing best practices and market-based design concepts to achieve maximum efficiency and lower cost. Additional practices that shall be considered to achieve maximum efficiency and lower cost include but are not limited to vendor and benefit plan consolidation.

The Contractor will be required to become a sponsor of the existing retirement plans, and other Post Retirement Benefit Plans (PRB), as applicable, with responsibility for management and administration of the plans, including maintaining the tax-qualified status of those plans, if applicable. Incumbent Employees shall remain in their existing defined benefit (DB) pension plan (or comparable successor plan if continuation of the existing plans is not practicable) pursuant to pension plan eligibility requirements and applicable law. The Contractor shall carry over the length of service credit and leave balances for Incumbent Employees accrued as of the day preceding the first day of the Base Period.

- 2.2.1** No later than 45 calendar days after the start of the Transition Period of the Contract, the Contractor shall submit for NNSA approval all proposed benefit plans including but not limited to retirement plans, disability, healthcare, and paid time off. 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 Period as well as newly proposed plans.

The submission shall also include an “Employee Benefits Value Study” which assesses the value of the proposed benefit plans for non-bargaining unit Employees relative to market 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. The Contractor shall submit for Contracting Officer approval a benefits program for non-bargaining unit Employees that does not exceed the net benefit value of the comparator group by more than five percent. Alternatively, the Contractor may submit to the Contracting Officer, for Contracting Officer approval, a strategy to realign employee benefits to within the 105% ceiling in a specified period of time.

- 2.2.2** No later than 90 calendar days after the start of the Transition Period of the Contract, the Contractor shall submit a plan with a timeline for implementing an integrated Compensation system that meets the criteria defined in 3.0 Compensation below.

## **2.3 Incumbent Employees Right of First Refusal**

The Contractor shall use the Transition Period 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) 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. The Contractor shall provide Incumbent Employees offered the same position their same base salary/pay rate in existence (provided by the incumbent Contractor) at the time the offer is made. The Contractor shall provide an Incumbent Employee pay commensurate with the position offered if the Contractor offers the Incumbent Employee a different position than the position the Incumbent Employee is performing at the time the offer is made. The Contractor shall provide such offers to Incumbent Employees as soon as possible, however, no later than 90 calendar days after the start of the Transition Period of the Contract.

The Contractor shall not provide such offers to Incumbent Employees who support the UPF Project without prior written approval by the Contracting Officer. Not later than 30 days after the start of the Transition Period of the Contract, the Contractor shall provide to the Contracting Officer a list of the Incumbent Employees (e.g. name, position, organizational structure) it intends to offer employment to. Such list shall be consistent with Sec. J, Appendix Q, *UPF Interface Management Plan* and the Contractor's proposal.

#### **2.4 Personnel Appendix**

The Personnel Appendix (Section J, Appendix D) sets forth certain Contractor Human Resources policies and related expenses that have cost implications under this Contract and are not covered explicitly in the FAR or DEAR cost principles. No later than 120 days after the start of the Transition Period of the Contract, the Contractor shall submit a plan to address the open items in the Personnel Appendix Section J, Appendix D. The Contractor shall obtain Contracting Officer approval of Personnel Appendix proposals. The Contracting Officer will incorporate the approved Personnel Appendix into the Contract via a contract modification.

### **3.0 Compensation**

The Contractor shall develop and administer, in a cost effective manner, compensation programs that will recruit and retain a highly skilled, motivated, and experienced workforce 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 benefits program. The objective is to provide a level of total compensation which, within available funds, attracts, motivates and retains a highly competent workforce and which helps the Contractor to maintain 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. The Contractor's total compensation system (e.g., to be set forth in Section J, Appendix D, *Personnel Appendix*), shall meet the tests of allowability in FAR 31.205-6 *Compensation for Personal Services*, and DEAR 970.3102-05-6, *Compensation for*

*Personal Services*, be consistently applied. Any changes to the Total Compensation System shall be submitted to the Contracting Officer 60 days prior to implementation. Changes that increase current or future costs shall be approved by the Contracting Officer prior to implementation.

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;
- (viii) Means for communicating the pay programs to employees; and
- (ix) Methodology for ensuring compliance with applicable wage payment laws and regulations (e.g., FLSA).

### **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 Compensation Program Design Changes**

Any proposed major compensation program design changes shall be submitted to the Contracting Officer 60 days prior to implementation.

#### **3.2.2 Annual Compensation Increase Plan (CIP)**

- (i) The Contractor shall submit a CIP to the Contracting Officer for an advance determination of cost allowability when the total weighted merit increase fund exceeds the professionally recognized salary budget survey's salary increase projection (e.g., WorldatWork projection); Or combined promotion/adjustment fund exceeds 0.5 percent for the CIP

year. The CIP 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) Comparison of average pay to market average total cash compensation (TCC), if applicable;
  - (8) 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 CIP year.
    - (b) All pay actions covered under the CIP are fully charged at the beginning of the CIP year, without regard to the fact that an employee may terminate before realizing the entire allocated CIP amount.
    - (c) Specific payroll groups (e.g., exempt, nonexempt) 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 non-Key payroll groups without prior Contracting Officer approval. The Contractor shall notify the Contracting Officer at the time funds are shifted.
  - (9) A discussion of the impact of proposed CIP on the site budget;
  - (10) 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) The Contractor shall submit a notification to the Contracting Officer with summary level data, as outlined in the CIP guidance issued by NNSA annually only if 1) the total weighted average merit increase fund does not exceed the professionally recognized salary budget survey's salary increase projection (e.g., WorldatWork projection) and 2) the combined promotion/adjustment fund does not exceed 0.5 percent for the CIP year.
- (iii) Planned salary increases for specific payroll groups must be justified by market position and appropriate market data. No presumption of allowability shall exist as a result of changes to salary surveys, benchmarks, or payroll categories that exceed market position.
- (iv) Contracting Officer's approval is required for any salary structure

adjustments that exceed the professionally recognized salary budget survey's mean structure adjustment projection (e.g., WorldatWork projection) for the CIP year.

### **3.2.3 Compensation Actions for All Key Personnel**

When any Key Person is replaced, the compensation for the replacement shall be submitted for approval by the Contracting Officer. The top contractor official (i.e., Chief Executive Officer 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 proposed compensation actions, the Contractor shall submit supporting justification related to internal and external equity, individual performance, the Application for Contractor Compensation Approval Form (DOE 3220.5), and the Compensation Subject to the Compensation Cap Table. This documentation shall be provided to the Contracting Officer at least 30 days before the proposed effective date of the action.

### **3.2.4 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.

### **3.2.5 Incentive Compensation Plan**

For any proposed establishment or modification of a non-base Incentive Compensation Plan (variable pay plan), documentation shall be provided to the Contracting Officer, for approval, no later than 60 days prior to proposed implementation. No person in a Key Personnel position or acting in a Key Personnel position may participate in any Incentive Compensation Plan or other bonus plan that is a reimbursed cost under this Contract. The dollar amount authorized to fund the non-base Incentive Compensation Plan shall not exceed 2.0% of the total annual salary base as of the end of the previous plan year. Such proposal shall contain:

- (i) A description of the design of the non-base Incentive Compensation Plan, including the funding methodology to be used, the total percentage of annual salary base, the eligible positions, the performance period, and how pay pursuant to this plan will be linked to Contract performance goals;
- (ii) A description of the specific pass-over rate, i.e., percent of participants who will not receive an incentive;
- (iii) A description of how the plan includes pay at risk; and
- (iv) Other information the Contracting Officer requests to assist with the determination of the non-base Incentive Compensation Plan.



**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 the Contractor Requirements Document included in NNSA Policy Letter, NAP-540.2, titled NNSA M&O Off-Site Extended Duty Assignments.

**3.2.7 Contractor's Severance Plan**

The Contractor shall submit a severance plan within 60 days of the start of the Base Period, which must include the notification period, pay-in-lieu of notice 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 recipient employee:

- (i) Voluntarily separates, resigns or retires from employment, except 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 the Contractor at a different Contractor facility or with a subsidiary, parent or affiliate of the Contractor;
- (iv) Is discharged for cause; or
- (v) Is currently in a Key Personnel position.

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 amounts against approved amounts or planned amounts specified within notification, no later than 30 days after CIP plan year;
- (ii) Other compensation reports as requested by the Contracting Officer.

## **4.0 Benefits**

### **4.1 Establishment of New Benefit Plans and/or Changes to Existing Benefit Plans**

**4.1.1** To the extent the Contractor seeks to establish new benefit plans or change existing benefit plans, plan design, or funding methodology, the Contractor shall provide justification to the Contracting Officer. Proposed changes must also include cost impact, and the basis of determining cost. The Contractor must obtain approval from the Contracting Officer prior to implementation of a new benefit plan and prior to making changes to existing benefit plans that increase cost or which are contrary to written Departmental policy. The Contractor shall provide 60 day advance notification to the CO of changes to benefit plans that do not increase costs or long-term liabilities.

**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** If the Contractor seeks to terminate any benefit plan during the term of the Contract, the Contractor must obtain Contracting Officer approval for such termination. In addition, a Contractor proposal to terminate a pension plan must be provided to the Contracting Officer at least 60 days prior to the scheduled date of plan termination.

**4.1.4** Service Credit for employee benefits (including 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 the subparagraphs 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 completed every two years and submitted to the Contracting Officer no later than July 31 of the applicable year. 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 shall use the comparator companies previously used in the last Consolidated Benefit Value Study. If any of the comparator companies no longer participate,

the Contractor shall recommend replacement companies for approval by the Contracting Officer. The Contractor shall include major non-statutory benefit plans offered by the Contractor, including qualified defined benefit (DB) and defined contribution (DC) retirement plans; capital accumulation plans; and death, disability, health, and paid time off welfare benefit programs in the Value Study. However, any M&O Contractor DB plans, closed to new entrants, do not have to be included in the Benefit Value measurement. To the extent that the value studies do not address post-retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post-retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources.

- 4.1.5.2** A Benefits Value Study for applicable bargaining unit employees shall be submitted to the Contracting Officer no later than 6 months prior to the end of the bargaining unit Contract. The Benefit Value Study for bargaining unit employees must include at least 15 comparator companies approved by the Contracting Officer. If any of the comparator companies no longer participate, the Contractor shall recommend replacement companies for approval by the Contracting Officer. The Value Study must include major non-statutory benefit plans offered by the Contractor, including qualified DB and DC retirement and capital accumulation plans and death, disability, health, and paid time off welfare benefit programs. However, any M&O Contractor DB plans, closed to new entrants, do not have to be included in the Benefit Value measurement. To the extent that the value study does not address post-retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post-retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources.
- 4.1.5.3** With respect to Benefit Value Study that must be submitted every 2 years, per 4.1.5.1 above, when the weighted average net benefit value for non-bargaining employees (including different tiers of benefits or groups of employees) exceeds the comparator group average by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer, describing the specific actions they plan to take to get to the 105%, no later than 60 days after the Benefit Value Study is submitted.
- 4.1.5.4** An Employee Benefits Cost Study Comparison (Cost Study), shall be completed annually and submitted to the Contracting Officer by July 31<sup>st</sup>. 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 study.

**4.1.5.5** With respect to Benefit Cost Study that must be submitted every year, per 4.1.5.4 above, when the average of the Contractor's Cost Study total benefit costs for the non-bargaining employees 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. Based on this analysis, the Contracting Officer will determine whether a corrective action plan is necessary.

**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 shall align employee benefit programs with the benefit value and the cost as a percent of payroll in accordance with its corrective action plan.

## **4.2 Reports and Information: Benefits**

The Contractor shall provide to the Contracting Officer:

All data requested to be entered into DOE's iBenefits management system (or any successor database) including but not limited to the Compensation and Benefits Report.

## **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 Retirement Plans**

**4.4.1** For cost allocability and reimbursement purposes, any DB or 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 applicable Contractor plan shall be subjected to a limited scope audit annually that satisfies the requirements of Employee Retirement Income Security Act (ERISA) section 103, except that every third year the Contractor shall conduct a full-scope audit satisfying ERISA section 103. Alternatively, the Contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor shall submit the audit results to the Contracting Officer within 30 days from the completion of the audit. In years in which a limited scope audit is conducted, the Contractor shall provide the Contracting Officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104.
- 4.4.3 The Contractor will be reimbursed for DB 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 an additional DB pension contribution over and above the minimum required contribution would have the effect of avoiding benefit restrictions to DB plan participants, the Contractor shall notify the Contracting Officer at least 60 days prior to the date the payment would be 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. The timing and amount of contributions to the plan will be made to satisfy the Section 430 of the Internal Revenue Code and Section 302 of ERISA and avoiding any penalties associated with contributions made after a required installment date.
- 4.4.4 The Contractor shall obtain the Contracting Officer's advance written approval for any proposed changes to DB and/or DC plans that are not required by law and that may increase costs and/or liabilities. In addition, the Contractor shall obtain the Contracting Officer's advance written approval for any proposed changes to the DB plan that are contrary to written Departmental policy. The Contractor shall submit the proposal at least 60 days prior to the proposed effective date of the change(s). In addition, any proposed special programs (including, but

not limited to, plan-loan features, employee contribution refunds, or ancillary benefits) shall be submitted to the Contracting Officer for prior approval with an analysis of the impact of special programs on the actuarial accrued liabilities of the pension plan, and on relative benefit value, or cost per capita, if applicable. The analysis should also describe the potential impact on the plan's qualified status at present and the potential impact of the special programs on the qualified status through the duration of the Contract.

**4441** For proposed changes to DB and DC plans that are not mandated by law and which increase plan costs and/or liabilities, 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 the Contractor's 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, or the changes do not increase costs or liabilities under the plan(s), the Contractor must provide to the Contracting Officer 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 60 days before the new amendment is to take effect.

**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;

**4.45.3** 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;

**4.45.4** Assets shall be determined using the “accrual-basis market value” on the date of termination of operations; and

**4.45.5** 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.

**4.46.1** If the Contractor seeks to terminate any pension plan during the term of the Contract, the Contractor must obtain Contracting Officer approval for such termination. In addition, a Contractor proposal to terminate a pension plan must be provided to the Contracting Officer no later than 60 days prior to the scheduled date of plan termination.

**4.46.2** 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 or through lump sum payouts. 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. With respect to standard plan terminations, the Contractor must adhere to all Pension Benefit Guaranty Corporation regulations regarding the termination of a pension plan.

**4.46.3** 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.

- 4.46.4** If ERISA or the Internal Revenue Code prevents 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.
- 4.46.5** 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."
- 4.46.6** 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.
- 4.46.7** 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**

- 4.47.1** 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 comingled 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 comingled 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 ten months of the last day of the current pension plan year except for the Pension Management Plan which must be submitted by January 30 of each year.

- 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.
- Copies of IRS Forms 5500 with Schedules for each NNSA-funded pension plan.
- 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.

#### **4.5 Pension Management Plan (PMP)**

**4.5.1** No later than January 31 of each applicable year, the Contractor shall submit a plan for management and administration (Pension Management Plan) via iBenefits for each defined benefit pension plan (DB Plan) consistent with the terms of the Contract. The Pension Management Plan shall include but is not limited to the DB plans' projected assets, projected liabilities, estimated contributions, and the prior year's actuarial valuation report. A full description of the Contractor's required reporting will be provided in the annual management plan data request. Within 60 days after the date of submission, appropriate Contractor representatives shall participate in a conference call to discuss the Contractor's PMP submission and any other current plan issues or concerns.

#### **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) and 4) a strike contingency plan. 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. To the extent that wage increases are proposed, provide upon request 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 a Benefits Value Study (if applicable) 6 months prior to the end of the bargaining unit contract. The Contractor will provide regional wage survey 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 to the Contracting Officer the "Report of Settlement" 30 days after formal ratification. The Contractor shall provide information requested by the Contracting 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**

In carrying out the work under this Contract, the Contractor shall be responsible for the employment of all professional, technical, skilled and unskilled personnel engaged by the Contractor in the work hereunder, and for the training of personnel. Persons employed by the Contractor shall be and remain employees of the Contractor and shall not be deemed employees of the NNSA or the Government. Nothing herein shall require the establishment of any employer-employee relationship between the Contractor and consultants or others whose services are utilized by the Contractor for the work hereunder.

### **6.1 Workforce Planning - General**

The Contractor shall analyze workforce requirements consistent with current and future mission requirements. The Contractor shall develop a written document describing appropriate workforce strategies and how it will ensure appropriate skills to perform the current mission work and the anticipated future mission work. The document and analysis shall include a discussion of the following topics: future hiring needs in critical skills, recruitment and retention of individuals possessing critical skills, and the impact of anticipated retirements or other attrition. This analysis shall be provided to the Contracting Officer no later than November 30<sup>th</sup> each year.

## **6.2 Reductions in Contractor Employment – Workforce Restructuring**

### **6.2.1 Voluntary Separations:**

- 6.2.2** In order to minimize the number of involuntary separations and mitigate the impact on affected employees, in consultation with the Contracting Officer the Contractor shall consider 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 to the Contracting Officer for approval prior to implementation regardless of the number of employees involved. Advance approval of a VSP by the Contracting Officer is required for any such costs to be considered allowable. However, advance approval is not required and the Contractor may instead notify the Contracting Officer if the VSP is consistent with the following parameters: 1) the VSP is conducted in accordance with approved contractor policies and

contract requirements; 2) no enhanced benefits (severance or pension) are provided; 3) no backfilling or re-employment of VSP employees' positions occurs after severance is paid; 4) business case is submitted 5 days in advance of notification date and includes the maximum number of voluntary reductions, maximum dollars, positions/skills impacted; reasons reductions are needed, copy of self-select waivers, and communication plan; and 5) VSP provides that voluntary reductions are offered to all eligible employees in an operational unit.

### **6.2.3 Involuntary Reductions in Contractor Employment**

**6.2.3.1** 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.

**6.2.3.2** 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. The workforce restructuring plan must include: the rationale for the proposed separations, costs, timelines for notifications, the jobs classifications of the Contractor employees involved, number of impacted employees and any other information specified by the Contracting Officer. In addition, the Contractor shall perform an adverse impact analysis and provide a copy of the analysis to the NNSA Field Counsel for any restructuring actions that involve 50 or more employees within a 12-month period.

**6.2.3.3** If the restructuring may involve the separation of 100 or more employees within a 12-month period, the Contractor shall submit a 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.

**6.2.3.4** All notifications to the NNSA regarding contractor workforce restructuring must contain the rationale for the proposed separations, costs, timelines for notification, the job classifications of the Contractor employees involved and the number of impacted employees.

**6.2.3.5** The Contractor may submit a multi-year workforce restructuring plans for consideration and approval. Any payment of separation benefits beyond those already approved under the Contract must be approved by the Contracting Officer.

## **CHAPTER IV. INTERFACES FOR URANIUM PROCESSING FACILITY**

### **1.0 Introduction**

In accordance with Section J, Appendix A, *Statement of Work*, Chapter I, Section 4.8 *Interfaces with Other Site Users*, the Contractor shall provide and manage site interfaces/services with the contractor for the UPF, Consolidated Nuclear Security, LLC (CNS), with the processes described in the Interface Management Plan and UPF Interface and Services Plan. CNS is the Design Agent for UPF, the Contractor is the Design Authority for the UPF, and CNS is responsible for UPF construction and turnover to operations, under Contract DE-NA0001942. The Contractor shall be responsible for developing a detailed division of responsibility and interaction protocol with CNS and describing it in a comprehensive UPF Interface Management Plan. This UPF Interface Management Plan will be jointly developed and approved by the Contractor, the CNS UPF Project Director, and NNSA and codified as Appendix Q in the contract. The Contractor shall provide the interfaces/services as agreed to in Appendix Q.

### **2.0 Roles of the Design Authority and Design Agent**

The role of the Design Authority will be performed by the Contractor using the operational, design, safety basis, and mission requirements as defined by the established UPF Code of Record. The Design Authority:

- Is responsible for establishing the design requirements and ensuring that design output documentation appropriately and accurately reflect the design basis
- Is responsible for design control and ultimate technical adequacy of the design process
- Establishes and recommends approval of the UPF Safety Basis
- Ensures the operational, design, safety basis, and mission requirements are met
- Provides conflict resolution, interpretation, and oversight of design requirements and activities.

The Design Agent (CNS) is responsible for the professional quality, technical accuracy and adequacy, and the coordination of all designs, drawings, specifications and other services furnished under its contract. The Design Agent prepares all design documents and supporting information, maintains the design basis, controls configuration, and trends performance of systems.

### **3.0 Transition to Operations, Turnover and Operation of UPF**

The Contractor shall be responsible for supporting the turnover of UPF systems and processes, completing physical interfacing scope, and other defined activities to support the overall UPF project completion. Upon receiving DOE authorization to startup UPF, the Contractor shall be responsible for full operation of the UPF. Details for transition and turnover will be jointly developed and approved by the Contractor, the CNS UPF Project Director, and NNSA and codified in Appendix Q in the contract. The Contractor shall provide the operators as agreed to in Appendix Q.

## CHAPTER V. CURRENT PROJECT STATUS

### 1.0 Project Summary

Capital construction projects that may be added as SubCLINs to be performed under CLIN 0004 of the contract include, but are not limited to:

Project	Site	Capital or MIE	Last CD Approval & Date	TPC or Range (\$M)	CD-4 Date
Lithium Processing Facility	Y-12	Capital	CD-1 12/2019	\$955 - \$1,645	4QFY31
High Explosive Synthesis Formulation & Production Facility	Pantex	Capital	CD-0 01/18/2019	\$400 - \$615M	4Q FY2029

- Lithium Processing Facility (LPF) Project** – The LPF project will construct a new facility to relocate lithium operations and processes currently in Y-12's Building 9204-2 into a safe, reliable, modern building. LPF will be approximately 134,000 SF in size. It will be designed with space for lithium process equipment, shipping and receiving areas, in-process storage areas, and technical and administrative support areas. The project is post CD-1 and pursuing a CD-3A (1st QTR FY-23) for Site Preparation and Long Lead Procurements and a CD-2/3 (4th QTR-24) for the remaining scope. The execution strategy includes subcontracts for (1) Architectural Engineering, (2) Specialty design (evaporator/dryer, crusher/grinders, pressure vessels, and machining complexes/lathes), and (3) Construction Manager.
- High Explosive Synthesis Formulation & Production (HESFP) Facility** – The project plan includes construction of four buildings totaling approximately 76,300 square feet with associated weather-proofed ramps. These structures will replace the aging facilities in Zone 11 and 12 that support HE manufacturing mission at the site.
  - HESFP Main Building: HE synthesis and HE formulation production to create small batches of HE material.
  - Blending Building: Large scale blending (minimum 5000 pounds per batch). The Blending Building was designed as a separate structure distanced from the other structures to meet explosive safety requirements.
  - Magazine Building: The Magazine Building includes an HE packaging bay and five HE material storage bays. The magazine exhibits a storage capacity of 25,000 pounds of HE material.
  - The scope of this project includes design and relocation of utilities out of the buildings and ramps planned for demolition.

Other capital construction and MIE projects covered under this contract, which may be included under CLIN 0002 or 0004 at NNSA's sole discretion, include but are not limited to:

Project	Site	Capital or MIE	Last CD Approval & Date	TPC or Range (\$M)	CD-4 Date
West End Protected Area Reduction Project	Y-12	Capital	CD-1 12/2018	\$78 - \$160	3QFY24
Electrorefiner	Y-12	MIE	CD-2/3 02/2019	\$101	2/15/23

Calciner	Y-12	MIE	CD-2/3 05/2020	\$108	12/11/23
Fire Station	Y-12	Capital	CD-1 07/2017	<\$28	N/A <sup>1</sup>
Emergency Operations Center	Y-12	Capital	CD-1 01/2016	<\$29	N/A <sup>2</sup>
Direct Chip Melt	Y-12	MIE	CD 0	<\$38	N/A <sup>3</sup>
High Explosive Science & Engineering Facility	Pantex	Capital	CD-1 2015	\$231M	4Q FY2026

- West End Protected Area Reduction (WEPAR) Project** – The WEPAR project will design and move the western Protected Area (PA) boundary Perimeter Intrusion, Detection, and Assessment System (PIDAS), design and construct a pedestrian and vehicle portal, secure facilities that fall outside of the newly established PA and demolish legacy PIDAS structures. The WEPAR project will eliminate approximately 70 acres from the Y-12 PA. The new PIDAS leg will be approximately 1,750 linear feet. This will provide a reduction in current PIDAS by approximately 8,000 linear feet; above-grade components of the existing/abandoned 8,000 linear feet will be demolished as part of the project. Scope also includes refurbishing legacy PIDAS south of the UPF, and converting four building areas to Limited Areas (LAs).
- Electrorefiner (ER) Project** – The objective of the ER Project is to design, procure, test, install, and turn over to operations a process that provides an electrochemical means of purifying uranium metal. The ER Project is a Major Item of Equipment (MIE) project that will install a metal-to-metal purification process that will support Y-12's Process Technology Development (PTD) Program. The ER process will be located in Building 9998, which is a Category 2 nuclear facility. The process includes electrorefining in the ER cell, salt vaporization, salt recovery, and uranium consolidation.
- Calciner Project** – The Calciner system is one of several processes needed to bridge the mission need capability gap for the Building 9212 exit transition strategy. Installation of a Calciner is key to phasing out mission dependency on Building 9212, reducing material at risk (MAR) through the Area 5 deinventory, and the eventual shutdown and decontamination of Building 9212. The Calciner Project will eliminate the need for 4 steps in the wet chemistry process. Solutions will go directly from the High Capacity Evaporator and pour up stations directly to the calcination system where they will be converted into flowable powder. As a phased shutdown begins in Building 9212, the calciner will be available to assist with the generated salvage of aqueous solutions generated during decommissioning.
- Fire Station Project** – The Fire Station project will deliver a new building (approximately 35,000 ft<sup>2</sup>) to meet all emergency response requirements at the Y-12 site. The new facility will be built to meet seismic and wind standards for essential facilities, International Building Code Category 4, and provide adequate space for training, briefings, offices, dining, records, and equipment to support 24 hours a day, 7 days a week operations under all environmental conditions. The facility will accommodate a workforce of approximately 95 personnel, a fleet of approximately 25 large fire apparatus vehicles, ambulances, emergency response vehicles, and other support vehicles. Emergency response includes firefighting, emergency medical treatment and transport, hazardous materials spill mitigation, and technical rescue responses for all events within the site emergency response boundary.
- Emergency Operations Center (EOC) Project** – The EOC is a single-story, approximately

<sup>1</sup> Start of Operations planned 1QFY23

<sup>2</sup> Start of Operations planned 1QFY23

<sup>3</sup> Start of Operations planned 1QFY23



12,000 ft<sup>2</sup> structure that will serve as the location for the Y-12 Operations Center and as the EOC during abnormal events. The facility must provide a survivable, habitable environment to monitor site conditions, respond to abnormal events, and provide command and control responsibilities until these functions are transferred to the primary EOC at East Tennessee Technology Park. The EOC facility will house four main functions: (1) Y-12 Operations Center; operations are manned 24 hours 7 days a week. (2) Emergency Command Center; providing maintenance, surveillance, and control of operational processes during normal operations, as well as initial command and control for an abnormal event. (3) Fire Department Alarm Room; an operations area manned 24 hours a day 7 days a week and will be moved from current fire hall. (4) Technical Support Center; provides ongoing technical support in case of an abnormal event and assumes command and control from the emergency command center upon mobilization.

- **Direct Chip Melt (DCM) Bottom Loading Furnace (BLM) Project** – The DCM BLF Project is a capital acquisition (major item of equipment) project that will design, procure and install two new bottom loading furnaces (BLF) with an integrated inert environment glovebox system and chip compaction capability in Building 9215. The project supports the transition of operations from building 9212 and replaces the existing Enriched Uranium chip processing system with a more efficient process.
- **High Explosive Science & Engineering Facility (HESE) Project** – The project will build three structures totaling 68,000 square feet with associated weather-proofed ramps totaling 3,000 square feet. These structures will replace the aging facilities in Zone 11 that support HE Manufacturing mission at the site:
  - HE Laboratory: Equipment and facility designed to achieve HE Operational Limit of 12 pounds.
  - HE Staging: Equipment and facility designed to achieve HE Operational Limit of 50 pounds for temporary storage.
  - Technology Development and Deployment Laboratory (TDDL): Provide necessary laboratory/office space for approximately 73 personnel to support the weapons complex mission.

The HESE project is divided into two subprojects:

**New Facility Subproject:** The New Facility subproject covers all scope of the project, with the exception of the D&D of the existing facilities. This includes planning, design and construction of the new building, access road and perimeter.

**D&D Subproject:** The D&D subproject will complete D&D of equivalent square footage of the New Facility subproject. This includes design and relocation of utilities out of the buildings and ramps planned for demolition.

HESE project is pursuing approval of a CD-3A for long lead scope (two new blast tanks) and site preparation, with CD-2/3 for the New Facility Subproject planned to follow late in FY21.

## 2.0 Project Reporting Requirements

DID No.	TITLE	CD
DID-ENG-0003	Code of Record Document	Pre-CD-0
DID-ENG-0011	Feasibility Study	Pre-CD-0
DID-PM-0016	Requirements Management Plan	Pre-CD-0

DID-PM-0035	Project Funding Requirements Profile	Pre-CD-0
DID-PM-0042	Independent Cost Estimate Report	Pre-CD-0
DID-PM-0043	Independent Cost Review Report	Pre-CD-0
DID-PM-0044	Mission Validation Independent Review Report	Pre-CD-0
DID-PM-0045	Independent Project Review Report	Pre-CD-0
DID-PM-0048	Total Project Cost	Pre-CD-0
DID-PM-0053	Initial Management Plan	Pre-CD-0
DID-PM-0060	Project Definition Rating Index (PDRI) Analysis	Pre-CD-0
DID-PRG-0004	Key Project Assumptions	Pre-CD-0
DID-PRG-0007	Program Acquisition and Funding Strategy	Pre-CD-0
DID-PRG-0008	Program Change Control Plan	Pre-CD-0
DID-PRG-0010	Mission Need Statement	Pre-CD-0
DID-PRG-0011	Program Requirements Document	Pre-CD-0
DID-PRG-0012	Strategic Plan	Pre-CD-0
DID-PRG-0013	Metrics Monthly Reporting Requirements	Pre-CD-0
DID-PRG-0015	Contract Master Schedule	Pre-CD-0
DID-PRG-0016	Performance Work Statement	Pre-CD-0
DID-PRG-0017	Contract Data Requirements List	Pre-CD-0
DID-PRG-0018	Pre-conceptual Planning Activities	Pre-CD-0
DID-PRG-0023	Integrated Master Schedule	Pre-CD-0
DID-PRG-0024	Capital Asset Plan	Pre-CD-0
DID-SAF-0002	Expectations for Safety-in-Design	Pre-CD-0
DID-CST-0005	High Performance and Sustainable Building Strategy	Pre-CD-1
DID-ENG-0004	Conceptual Design Report	Pre-CD-1
DID-ENG-0005	Configuration Audit Plan	Pre-CD-1
DID-ENG-0007	Configuration Item Documentation Recommendation	Pre-CD-1
DID-ENG-0008	Configuration Status Accounting Information	Pre-CD-1
DID-ENG-0009	Design Master Record Index	Pre-CD-1
DID-ENG-0013	Functional and Operational Requirements	Pre-CD-1
DID-ENG-0014	Interface Control Document	Pre-CD-1
DID-ENG-0016	Analysis of Alternatives	Pre-CD-1
DID-ENG-0020	Design Review Plan	Pre-CD-1
DID-ENG-0021	Engineering Drawings	Pre-CD-1
DID-ENG-0022	Trade Study Report	Pre-CD-1
DID-ENG-0023	Equipment List	Pre-CD-1
DID-ENG-0024	Material Balance Diagram	Pre-CD-1
DID-ENG-0025	Design Change Control Plan	Pre-CD-1
DID-ENG-0027	Analysis of Alternatives Study Plan	Pre-CD-1
DID-ENG-0029	Design Management Plan	Pre-CD-1
DID-ENG-0031	Sustainable Design Report	Pre-CD-1
DID-EPC-0001	Environmental Compliance Strategy	Pre-CD-1
DID-EPC-0004	NEPA Compliance Strategy	Pre-CD-1

DID-EPC-0005	Sustainable Environmental Stewardship Plan	Pre-CD-1
DID-ITS-0001	Information Technology Management Plan	Pre-CD-1
DID-ITS-0002	Technical Requirements Document	Pre-CD-1
DID-ITS-0003	Cyber Security Plan	Pre-CD-1
DID-PM-0001	Change Control Board Log and Minutes	Pre-CD-1
DID-PM-0002	Configuration Management Document Pick List	Pre-CD-1
DID-PM-0003	Configuration Management Plan	Pre-CD-1
DID-PM-0005	Document Control Plan	Pre-CD-1
DID-PM-0007	Integrated Project Team Charter	Pre-CD-1
DID-PM-0008	Long Lead Items List	Pre-CD-1
DID-PM-0009	Systems Engineering Management Plan	Pre-CD-1
DID-PM-0010	Procurement Plan	Pre-CD-1
DID-PM-0011	Acquisition Strategy	Pre-CD-1
DID-PM-0012	Project Execution Plan	Pre-CD-1
DID-PM-0013	Project Management Plan	Pre-CD-1
DID-PM-0015	Records Management Plan	Pre-CD-1
DID-PM-0017	Risk Assessment Report	Pre-CD-1
DID-PM-0018	Risk Management Plan	Pre-CD-1
DID-PM-0019	Risk Register	Pre-CD-1
DID-PM-0020	Risk Watch List	Pre-CD-1
DID-PM-0021	Task Order Status Report	Pre-CD-1
DID-PM-0022	Work Breakdown Structure and WBS Dictionary	Pre-CD-1
DID-PM-0023	Critical Path Schedule	Pre-CD-1
DID-PM-0024	Fixed Price Contract Milestone and Schedule Status Report	Pre-CD-1
DID-PM-0025	Nuclear Quality Assurance Plan	Pre-CD-1
DID-PM-0026	Performance Measurement Plan	Pre-CD-1
DID-PM-0027	Resource-Loaded Schedule	Pre-CD-1
DID-PM-0028	Statement of Work	Pre-CD-1
DID-PM-0029	Total Estimated Cost	Pre-CD-1
DID-PM-0031	Quality Assurance Plan	Pre-CD-1
DID-PM-0032	Technology Maturation Plan	Pre-CD-1
DID-PM-0033	Value Engineering Plan	Pre-CD-1
DID-PM-0034	Communications Management Plan	Pre-CD-1
DID-PM-0036	Federal Project Director Quarterly Project Review	Pre-CD-1
DID-PM-0037	Data Management Plan	Pre-CD-1
DID-PM-0038	Project Charter	Pre-CD-1
DID-PM-0039	Master Document List	Pre-CD-1
DID-PM-0040	Life Cycle Cost	Pre-CD-1
DID-PM-0050	Acquisition Plan	Pre-CD-1
DID-PM-0051	Project Staffing Plan	Pre-CD-1
DID-PM-0054	Responsibility Assignment Matrix	Pre-CD-1

DID-PM-0055	Risk Management Communication Plan	Pre-CD-1
DID-PM-0056	Root Cause Analysis	Pre-CD-1
DID-PM-0057	Tailoring Strategy	Pre-CD-1
DID-PM-0058	Technology Development Plan	Pre-CD-1
DID-PM-0059	Corrective Action Plan	Pre-CD-1
DID-PM-0061	Annual Work Plan	Pre-CD-1
DID-PM-0062	Organizational Breakdown Structure	Pre-CD-1
DID-PM-0063	Training Plan	Pre-CD-1
DID-PM-0064	Security Performance Assurance Program Plan	Pre-CD-1
DID-PM-0065	Stakeholder Involvement Plan	Pre-CD-1
DID-PM-0072	Risk and Opportunity Assessment	Pre-CD-1
DID-PRG-0003	Key Performance Parameters	Pre-CD-1
DID-PRG-0014	Acquisition Strategy Analysis	Pre-CD-1
DID-PRG-0019	Project Data Sheet	Pre-CD-1
DID-PRG-0021	Monthly Status PARS II Report	Pre-CD-1
DID-PRG-0025	One-for-One Replacement Strategy	Pre-CD-1
DID-PRG-0026	Contract Management Plan	Pre-CD-1
DID-PRG-0028	Checkout, Testing, and Commissioning Plan	Pre-CD-1
DID-SAF-0001	Conceptual Safety Design Report	Pre-CD-1
DID-SAF-0007	Preliminary Hazards Analysis	Pre-CD-1
DID-SAF-0009	Safety Design Strategy	Pre-CD-1
DID-SAF-0014	Integrated Safety Management Plan	Pre-CD-1
DID-SAF-0015	Safety Design Control Plan	Pre-CD-1
DID-SAF-0020	Safety Review Letter	Pre-CD-1
DID-SEC-0002	Preliminary Security Vulnerability Assessment	Pre-CD-1
DID-SEC-0003	Security Plan	Pre-CD-1
DID-SEC-0004	Safeguards and Security Requirements	Pre-CD-1
DID-ENG-0001	As-Built Configuration List	Pre-CD-2
DID-ENG-0010	Facility Design Description	Pre-CD-2
DID-ENG-0015	Preliminary Design Report	Pre-CD-2
DID-ENG-0017	System Design Description	Pre-CD-2
DID-ENG-0018	Technology Readiness Assessment	Pre-CD-2
DID-ENG-0019	Reliability, Availability, Maintainability, and Inspectability Analysis	Pre-CD-2
DID-ENG-0030	Final Design Review Report	Pre-CD-2
DID-EPC-0003	Final NEPA Documentation	Pre-CD-2
DID-EPC-0006	Environmental Safety and Health Plan	Pre-CD-2
DID-PM-0006	Earned Value Management Plan	Pre-CD-2
DID-PM-0014	Project Performance Baseline Control Plan	Pre-CD-2
DID-PM-0030	Emergency Management Plan	Pre-CD-2
DID-PM-0046	Technical Independent Project Review Report	Pre-CD-2
DID-PM-0047	External Independent Review Report	Pre-CD-2

DID-PM-0052	Integrated Program Management Report	Pre-CD-2
DID-PM-0066	Integrated Baseline Review Report	Pre-CD-2
DID-PM-0068	Technical Baseline List	Pre-CD-2
DID-PM-0069	Technology Readiness Assessment Review Plan	Pre-CD-2
DID-PM-0070	Project Change Notice	Pre-CD-2
DID-PRG-0006	Performance Baseline	Pre-CD-2
DID-PRG-0022	Contract Performance Report	Pre-CD-2
DID-SAF-0005	Hazards Analysis Report	Pre-CD-2
DID-SAF-0006	Preliminary Documented Safety Analysis	Pre-CD-2
DID-SAF-0008	Preliminary Safety & Design Results	Pre-CD-2
DID-SAF-0013	Operational Readiness Review Plan of Action	Pre-CD-2
DID-SAF-0016	Fire Hazards Analysis	Pre-CD-2
DID-SAF-0017	Occurrence Report	Pre-CD-2
DID-SAF-0018	Lessons Learned Report	Pre-CD-2
DID-SAF-0022	Safety Evaluation Report	Pre-CD-2
DID-SEC-0005	Graded Protection Strategy	Pre-CD-2
DID-CST-0001	Pre-Construction (Site Preparation) Plan	Pre-CD-3
DID-CST-0002	Construction Management Plan	Pre-CD-3
DID-CST-0003	Construction Work Authorization Plan	Pre-CD-3
DID-CST-0004	Construction Safety Plan	Pre-CD-3
DID-CST-0006	Integrated Construction Program Plan	Pre-CD-3
DID-ENG-0012	Final Design Report	Pre-CD-3
DID-ENG-0026	Request for Deviation (or Request for Variance)	Pre-CD-3
DID-EPC-0007	Energy and Resource Conservation Plan	Pre-CD-3
DID-EPC-0011	Waste Management Plan	Pre-CD-3
DID-EPC-0012	Construction Waste Minimization Plan	Pre-CD-3
DID-OPS-0003	Startup Plan	Pre-CD-3
DID-PM-0049	Annual Project Peer Review Report	Pre-CD-3
DID-PM-0071	Nonconformance Report	Pre-CD-3
DID-PRG-0029	Operational Release Plan	Pre-CD-3
DID-SAF-0019	Occupational Safety Plan	Pre-CD-3
DID-SEC-0001	Final Security Vulnerability Assessment	Pre-CD-3
DID-CST-0007	Readiness to Operate Assessment	Pre-CD-4
DID-ENG-0002	As-Built Drawings	Pre-CD-4
DID-EPC-0002	Environmental Management System Documentation	Pre-CD-4
DID-EPC-0008	Energy Conservation Report	Pre-CD-4
DID-EPC-0009	Leadership in Energy and Environmental Design Measurement and Verification Report	Pre-CD-4
DID-EPC-0010	Pollution Prevention Plan	Pre-CD-4
DID-OPS-0004	Project Organization De-staffing Plan	Pre-CD-4
DID-PM-0004	Project Completion Verification	Pre-CD-4
DID-PM-0041	Project Closeout Report	Pre-CD-4

DID-PM-0067	Materials Control and Accountability Plan	Pre-CD-4
DID-PRG-0001	Checkout, Testing, and Operations Acceptance	Pre-CD-4
DID-PRG-0005	Operations and Maintenance Configuration Management Plan	Pre-CD-4
DID-PRG-0009	Transition to Operations Plan	Pre-CD-4
DID-SAF-0003	Operational Readiness Review Implementation Plan	Pre-CD-4
DID-SAF-0004	Final Hazards Analysis Report	Pre-CD-4
DID-SAF-0010	Technical Safety Requirements	Pre-CD-4
DID-SAF-0011	Documented Safety Analysis	Pre-CD-4
DID-SAF-0012	Operational Readiness Review Report	Pre-CD-4
DID-DD-0001	Decontamination and Decommissioning Plan	Post-CD-4
DID-ENG-0032	Test and Evaluation Plan	Post-CD-4
DID-OPS-0001	Operations and Maintenance Plan	Post-CD-4
DID-OPS-0002	Startup Notification Report	Post-CD-4
DID-PRG-0027	Request for Equitable Adjustment	Post-CD-4

*\*All DID Templates will be provided to the Contractor after award (i.e. during Transition).*