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CHAPTER I. Objectives, Scope, and Requirements

1.0 OBJECTIVE

The objective of this Contract is to obtain nuclear production services to support National Nuclear Security Administration (NNSA) and broader national security requirements. This objective includes obtaining services to meet the production requirements derived from the nuclear weapons stockpile plan updated and released by the President of the United States annually. The Contractor shall be fully responsible for high-hazard enriched uranium, special nuclear material (SNM), high-explosive and nuclear weapon assembly/disassembly functions to support NNSA Stockpile Stewardship and Management Program activities directed by the Office of Defense Programs (DP). The Contractor shall function as the single integrating contractor for scheduling parts and performing material logistics within the Nuclear Security Enterprise (NSE). The Contractor shall provide a single management structure and interface to the Government for integrating production across the NSE.

NNSA tritium supply management functions are also included in Contractor responsibilities if this option is exercised. Furthermore, the Contractor shall directly support the NNSA Offices of Naval Reactors and Nuclear Non-Proliferation in addition to other Department of Energy (DOE) offices. Beyond DOE/NNSA, the Contractor shall provide unique services to ongoing missions for other Government agencies or privately owned organizations on a non-interference basis with the DOE/NNSA workload.

This statement of work includes two Contract Line Item Numbers (CLINs). CLIN 0001 covers the management and operation of Pantex and Y-12 for the initial five year base with sub-CLINs for three option periods, transition of SRTO, and inclusion of SRTO, respectively. CLIN 0002 covers the Uranium Processing Facility (UPF) at Y-12.

In addition to achieving Presidential goals outlined in the April 2010 Nuclear Posture Review, this Contract will fully support the DOE and NNSA Strategic Plans and will strengthen NNSA's vision for a fully integrated and interdependent Nuclear Security Enterprise (NSE), consisting of all eight NNSA sites, by achieving the following four specific objectives:

- (i) Improving performance in the completion of national security missions for nuclear production operations;
- (ii) Transitioning and merging operations at geographically-dispersed centers of excellence for: nuclear weapon assembly/disassembly; enriched uranium; SNM; high-explosive production; and, tritium supply management under a single Contract;
- (iii) Reducing the cost of performing work; and
- (iv) Requiring actions that support operation as an integrated DOE/NNSA enterprise.

This Contract does not affect the physical location of nuclear production center of excellence designations at the respective sites.

2.0 BACKGROUND

2.1 The NNSA Mission

The NNSA, established by Congress per the NNSA Act (Title XXXII of the National Defense Authorization Act for Fiscal Year 2000, Public Law 106-65) as a semiautonomous element within DOE, is responsible for the management and security of the nation's nuclear weapons, non-proliferation, and naval propulsion programs. It also responds to nuclear and radiological emergencies in the United States and abroad, and NNSA federal agents provide safe and secure transportation of nuclear weapons, components and special nuclear materials.

2.2 The NNSA Organization

NNSA relies on Management and Operating (M&O) Contractors to manage day-to-day site operations and to adhere to its policies when operating its laboratories, production plants, and other facilities in the NSE. Together, the M&O Contractors implement NNSA's all-encompassing Stockpile Stewardship Program managed by Defense Programs that includes operations associated with surveillance, assessment, maintenance, refurbishment, manufacture and dismantlement of the nuclear weapons stockpile as well as research, development and certification efforts.

2.3 Becoming an Enterprise

Overall, the NNSA needs to carry out its mission within research, development, and manufacturing organizations that are safe, secure, integrated, efficient, and cost effective. Work must be aligned with requirements received from key customers in a manner that strives to retain the intellectual excellence and key infrastructure capabilities demanded by national interests.

Throughout the 1990s, the DOE/NNSA took steps to consolidate to its current configuration of three national laboratories, four production plants, and a nuclear test site. In an evaluation of the NSE completed in October 2008, NNSA published a Supplemental Programmatic Environmental Impact Statement (SPEIS) that analyzed alternatives for transforming the complex into a smaller more efficient enterprise that responds to changing national security challenges and ensures the long-term safety, security, and reliability of the nuclear weapons stockpile. Two Records of Decision (RODs) informed by this SPEIS were published in December 2008.

While the RODs look at transforming the physical infrastructure, other initiatives have been undertaken to improve management and business practices. Two councils have been formed: one among the Contractor senior management and another among the federal site managers. The main function of these councils is to improve the integration and communication within the enterprise. Also, governance reform is an NNSA management initiative that focuses on developing a partnering relationship between the federal team and the supporting M&O Contractors.

2.4 Location of Performance

The three sites under this Contract are:

- 2.4.1** Y-12 National Security Complex (Y-12): Y-12 is a Government-owned site located in Oak Ridge, Tennessee, on approximately 800 acres within the 34,000 acre Oak Ridge Reservation. The NNSA facilities at Y-12 consist of over 350 buildings with approximately 5,800,000 gross square feet (gsf). Another 1,730,000 gsf are facilities that are the responsibility of the Office of Science, Office of Nuclear Energy, or the Office of Environmental Management.
- 2.4.2** Pantex Plant (PX): PX is a Government-owned site located near Amarillo, Texas, on approximately 10,500 acres at Pantex Plant proper and 1,100 acres of detached property called Pantex Lake, approximately 2.5 miles northeast of the main plant site. In addition, PX leases 5,800 acres south of the plant as a security buffer and owns approximately 1,526 acres of land east of FM2373 that provides an additional security buffer and is being used primarily for agriculture and location of the Pantex Wind Farm. The total acreage under Federal control is approximately 17,400 acres. The facilities on the site consist of 638 buildings comprising approximately 3,110,000 gsf.
- 2.4.3** Savannah River Tritium Operations (SRTO): SRTO is within the Savannah River Site (SRS) which is a Government-owned Environmental Management site located in south-central South Carolina and occupies approximately 198,420 acres in Aiken, Barnwell, and Allendale Counties. SRS is approximately 15 miles southeast of Augusta, Georgia, and 12 miles south of Aiken, South Carolina. The NNSA SRTO consists of approximately twenty-nine acres centrally located within the site. The SRTO facility is comprised of 32 buildings consisting of approximately 377,809 gsf.

3.0 SCOPE

This Contract is comprehensive with an objective to perform all necessary operational, coordination, and management functions at Y-12, PX, and SRTO (should this option be exercised) required to support NNSA and broader national security missions assigned to these sites. This includes but is not limited to all ongoing missions and functions, as well as those that may be assigned during the term of the Contract. It further includes all infrastructure management and maintenance; information technology; human resource management including critical skills recruitment and retention; environmental management; health, safety and security systems; and purchasing and other administrative systems.

In the execution of this Contract, and particularly program integration, the Contractor shall meet rigorous quality and reliability standards essential for the U.S. nuclear deterrent; maintain sufficient production capacity and produce at rates defined in planning documents; and implement flexible production management and execution processes to accommodate a dynamic national security environment. The Contractor shall balance risk management and cost reduction initiatives to provide increased value to the Government. This applies both internally to this Contract and to improving the overall cost efficiency of the NSE.

The Contractor shall be fully responsible and accountable for the safe and secure accomplishment of all work, whether performed by its own personnel or team members, including subcontractors. The Contractor shall be responsible for planning and coordinating production schedules; integrating, managing and executing the programs; supporting and executing large and small projects; and completing operations and other activities as described in this Statement of Work.

3.1 Mission

The Contractor shall safely and securely complete all mission responsibilities and improve performance in the completion of national security missions for nuclear production operations and all other national security missions, as applicable. NNSA has a Work Breakdown Structure (WBS) that is discussed further in Section J, Appendix F, Work Breakdown Structure. At a minimum, the Contractor shall:

- (i) Sustain the necessary workforce and exercise essential capabilities for: nuclear weapon assembly/disassembly, enriched uranium and lithium, SNM, high-explosive production, and tritium supply management centers of excellence;
- (ii) Maintain authorization basis for high-hazard operations;
- (iii) Operate high-hazard chemical processing facilities and systems within approved authorization basis;
- (iv) Assure the availability of core capabilities, regardless of stockpile size;
- (v) Implement and oversee the nuclear explosive and weapons surety program to include nuclear weapon/nuclear explosive safety, security and use control;
- (vi) Sustain and modernize the infrastructure;
- (vii) Interface with and support other contractors performing work at any of the sites;
- (viii) Balance available resources to meet mission requirements and infrastructure sustainment while maintaining safe, secure, environmentally compliant and responsive operations; and
- (ix) Effectively partner with other Contractors within the NSE to manage the master schedule for all production activities and be responsible for the execution of uranium, SNM, high explosives, nuclear weapons assembly/disassembly, dismantlement, and surveillance functions in support of the Stockpile Stewardship Program. In performing this responsibility, issues between the NSE contractors will be brought to Defense Programs management for resolution.

3.2 Merging of Operations

The Contractor shall merge operations, in accordance with Section J, Appendix D, Merger Transformation Plan, at geographically-dispersed centers of excellence for: nuclear weapon assembly/disassembly; enriched uranium; SNM; high-explosive production; and, tritium supply management (if exercised by option) under a single Contract. At a minimum, the Merger Transformation Plan shall describe how the Contractor will:

- (i) Manage merger of operations without negatively impacting mission;
- (ii) Ensure critical skills necessary to maintain capabilities;
- (iii) Identify and streamline redundant technical and business operations across the sites under this Contract;
- (iv) Incorporate governance (Section J, Appendix A, Chapter I, 4.4); and
- (v) Maintain relationships and regulatory interfaces, and assume responsibility for permits with local, State and Federal entities, other DOE offices, and stakeholders.

3.3 Scope and Financial Management

The Contractor shall support the DOE/NNSA Planning, Programming, Budgeting and Evaluation (PPBE) process. In supporting PPBE, the Contractor shall provide financial data for Government systems, such as:

- Standard Accounting and Reporting System (STARS)
 - STARS information is provided under the Institutional Cost Reporting Categories
- iMANAGE
- Enterprise Portfolio Analysis Tool (EPAT)
 - The EPAT information shall be collected in accordance with the Work Breakdown Structure (WBS) (see Section J, Appendix F)
- Facilities Information Management System (FIMS)

The Contractor shall maintain financial cost reporting systems to provide detailed cost reports for cost, scope, and schedule for direct and indirect costs for all work performed under this Contract. The cost reports shall include labor costs, leave/hours not worked, staff augmentation, fringe, pension, legacy, materials, services-subcontractors, direct service centers, other expenses, capital, labor category, and full-time equivalent (FTE) resource usage for all direct and indirect costs and utilize cost benefit analyses to determine the appropriate level of support functions and risks. The Contractor shall provide NNSA transparency into those financial cost reporting systems and shall provide routine reports to allow NNSA visibility into program and cost management supporting reports to external sources (see Section J, Appendix O). The Contractor's financial cost reporting systems shall support the DOE STARS, iMANAGE, EPAT and support systems, such as FIMS, as well as other Government systems as they are developed and implemented.

The NNSA will provide the initial cost information, FTE data and scope framework on the effective date of the Contract. The Contractor shall develop a baseline for all Contractor direct programs and indirect support costs in accordance with DOE institutional cost reporting categories as found in Section J, Appendix M, Institutional Cost Reporting, and utilize the WBS reporting structure for further program granularity, as applicable and as it continues to develop within NNSA. The baseline shall include cost, scope of work, and schedule with a change control process. Baselines will be utilized for implementing the cost reduction features under this Contract. The baseline will be reviewed and approved annually by the Contracting Officer.

The Contractor shall have in place tools to: 1) manage mission and indirect changes in scope, cost, and schedule; 2) compare actual costs of work performed (ACWP) to budgeted costs of work performed (BCWP); 3) accurately forecast estimated costs to complete (ETC) and estimated total costs at completion (EAC); and 4) document deviations from the baselines described above in this paragraph and, on a timely basis, notify the Contracting Officer of such changes. The Contractor shall not make retroactive changes to records pertaining to work performed that will change previously-reported costs, except for correction of errors and routine accounting adjustments and not make retroactive changes for funding fluctuations or revisions in EAC.

3.4 Enterprise Success

The Contractor shall participate with NNSA and other NNSA M&O Contractors as part of an "enterprise organization" to evaluate, plan, develop and implement strategic initiative activities that optimize mission and business operations across the NSE. The goal of these initiatives is to increase the efficiency and cost effectiveness from a business and mission perspective, to include:

- Reduced operational costs enterprise-wide,
- More consistent work practices and operational processes,
- Better pricing, better products, more timely delivery,
- Reduced administrative costs and lead times for both the Contractor and the DOE/NNSA,
- Greater standardization and interchangeability across the NSE; and
- Increased awards to small business entities.

NNSA expects these and other initiatives to result in a shift to an enterprise focus, based on the Contractor who possesses the most expertise and experience level within the NSE.

The Contractor shall cooperate with NNSA and NSE Contractors in identifying potential cross-NSE benefits to be derived from implementing common practices and goals across the NSE in the areas of mission workload and enterprise functional support.

The Contractor and NNSA shall establish performance incentives with performance measures and targets for strategic efforts that result in enterprise performance improvement overall for the Government.

4.0 ADMINISTRATIVE AND TECHNICAL REQUIREMENTS

4.1 Integrated Safety Management (ISM), Integrated Safeguards and Security Management (ISSM), Environmental Management System (EMS), and Quality Assurance Systems (QAS)

The Contractor shall ensure that ISM, ISSM, EMS, and QAS are integrated into its operations and that its Contractor Assurance System (CAS) reflects Contractor integrated performance related to these systems.

4.2 Work Authorization (WA) System

Specific work requirements under this Contract will be established annually and updated as needed by the Contracting Officer in accordance with the applicable DOE Order and the Contract's Section I Clause entitled "DEAR 970.5211-1, Work Authorization."

4.3 Information Technology (IT)

The NNSA seeks to optimize the efficiency of the NSE through the NNSA Network Vision (2NV) that seeks to consolidate IT infrastructure/services and eliminate redundant systems, to increase efficiency through mobility and cloud computing, and to improve business processes to better integrate across sites. To accomplish these goals, the Contractor must evaluate feasibility of removing redundant systems by completing a careful examination of existing systems and architecture across the sites to develop a single, integrated "to-be" vision that utilizes the best available technologies and management practices from both Government and commercial sources to improve and achieve performance excellence, including fiscal efficiency. With respect to production, these efforts shall include, but are not limited to, the implementation of multi-site, integrated manufacturing based information systems that support weapons production, special nuclear material (SNM) accountability, production scheduling and flow, surveillance, weapon retirement, process knowledge archiving, and preservation of production and certification records. Desktop and back-office computing capabilities should be compatible with those used by NNSA entities. Back-office functions shall include, but not be limited to, payroll, finance, project management, human resources, etc.

The Contractor shall deliver, within 180 days of the Base Term, a draft "to-be" architecture and information technology transition plan that integrates production and business systems at Pantex and Y-12, and further considers integration of SRTO as directed by the Government in a manner that is consistent with the overall enterprise and yields the best value to the Government. This plan shall present a cost and schedule baseline against which performance can be measured. Specifically, the plan must address network consolidation to generate cost efficiencies, mobility to replace manual processes and facilitate a mobile work environment, data center consolidation to generate energy savings, and cloud computing to improve business agility. In addition, the plan must consider (where feasible) replacement of legacy applications with Commercial Off the Shelf (COTS) systems, elimination of redundant IT systems, and collection of data in accordance with DOE or industry standards to improve NSE interoperability.

If the Contractor plans to offer an IT deliverable that is not Internet Protocol version 6 (IPv6) and Homeland Security Presidential Directive (HSPD)-12 compatible, the Contractor agrees to (1) obtain the Contracting Officer's approval before starting work on the deliverable; and (2) provide a migration path and firm commitment to upgrade to IPv6 and HSPD-12 compatibility for all application and product features.

The Contractor, prior to using any Contractor-owned software and systems where reimbursement is expected, shall request approval by the Contracting Officer. The Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any Contractor-owned software and systems brought in and used. Said license shall be limited to the continued nuclear production work by successor Contractors.

4.4 Governance

Governance is the system of management and controls exercised in the stewardship of the organization. The governance system shall be consistent with NNSA governance documents (NAP-21 included in Section J, Appendix N, List of Applicable Directives). Contractors must self govern and deliver mission results in a safe and secure manner. The Contractor shall implement governance through a collaborative partnership with NNSA to form the self-governance framework by which the mission is accomplished in an effective and efficient manner. The governance framework invokes trust and confidence between parties, defines expectations and authorities and verifies performance by utilizing objectives, requirements, assessments, metrics and rewards. The Contractor will focus on NNSA transformation activities that maximize the ability to complete the mission in a way that ensures effective and efficient stewardship of the taxpayers' money. The Contractor shall streamline operations and reduce costs to maximize mission accomplishment through a common understanding of expectations and performance accountability, supported by a strong Contractor Assurance System (CAS). The Contractor shall have a CAS as a subordinate and supporting feature of Governance as described in 4.4.1 below.

4.4.1 Contractor Assurance System: The Contractor shall have a Contractor designed and utilized system to manage performance consistent with Contract requirements. The CAS shall be a primary tool used by Contractor management to measure and improve performance, ensure that mission objectives and Contract requirements are met; ensure that workers, the public and the environment are protected; and ensure that operations, facilities, and business systems are efficiently and effectively operated and maintained. An effective CAS integrates Contractor management, supports corporate parent governance and facilitates Government oversight systems as described in NAP-21. NNSA oversight shall not be relied upon by the Contractor as the primary feedback in assessing its performance. The Contractor is fully accountable for performing its own assessment of these areas.

- 4.4.2 Standards and Directives Reform:** The Contractor shall submit a plan within 180 days after start of Base Term that identifies standards (e.g., ISO 9001, 14001, 18001, or other international or industry standards) to be utilized to replace other DOE requirements and provide the ability for the Contractor to operate with industry best practices. The plan shall describe how quickly the Contractor will achieve ISO certifications or other recommended standards but commit to completion no later than by the end of the second year of the Base Term. In addition, the Contractor, as part of its governance, shall continuously evaluate and examine DOE directives, orders, and requirements to propose needed exemptions or modifications to allow the Contractor to operate in the most effective and efficient manner and to assist in delivering cost savings to the Government.
- 4.4.3 Parent Organization(s):** The Contractor, through its Parent Organizations, shall develop, at a date agreed upon by the Contracting Officer and the Contractor, a multi-year strategy and oversight plan that details (1) its planned efforts and expected accomplishments by year, to continuously improve its management and performance, and (2) the planned efforts and contributions of its Parent Organizations. The Contractor shall also provide an Oversight Plan from its Governing Board (if applicable), which shall be submitted three months prior to each fiscal year for Contracting Officer approval. The Plan shall identify the Board's annual activities to: (1) monitor the Contractor's performance of Statement of Work activities including CAS performance and (2) to assist the Contractor in meeting NNSA's mission and operational requirements. Elements of the plan may be incorporated into the Contractor's Performance Evaluation Plan. The utilization of Parent Organization experts via the Board's activities, which are defined herein as employees of Parent Organization(s), is encouraged for the purpose of achieving improvement in management and performance to resolve deficiencies identified through the Board's oversight or unusual issues encountered in site operations. The Board shall conduct periodic briefings throughout the annual rating period to NNSA management relating their oversight activities against the Plan and effects on production plant performance.

The Contractor is encouraged to identify opportunities for the use of parent corporate systems and corporate home and branch office personnel for site operations for the purposes of monitoring plant performance, assisting the plant in meeting its mission and operational requirements, streamlining the Contractor's administrative and business systems, improving performance, and adapting private sector expertise to plant issues.

The term "systems" means any discrete process, procedure, program, document or instrument where cost of use under this Contract can be identified and quantified to the parent corporation.

The Contractor, prior to using any parent corporate systems or home and branch office personnel where reimbursement is expected, shall submit a plan for review and approval by the Contracting Officer. In reviewing the plan, the Contracting Officer will consider the extent to which each separate element of the plan is more efficient and represents an overall cost savings to the Government versus existing site systems, assists the parent corporation or the Contractor in monitoring plant

performance and in meeting mission and operational requirements or brings value-added expertise to plant issues. The Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any Contractor-owned software and systems brought in and used. Said license shall be limited to the continued nuclear production work by successor Contractors.

4.4.4 Performance Evaluation Plan: The Contractor shall participate in the formulation of Performance Evaluation Plans (PEP) that covers a defined period of time. The PEP shall include performance objectives, goals and measures.

4.4.5 Performance Metrics: The Contractor shall propose a list of performance metrics that provide Contractor and NNSA management an overall assessment of the “health of the operation” quickly and accurately. Once established, the metrics shall be part of the CAS and be provided with transparency to aid in the identification and understanding of significant performance issues.

4.5 Contractor Human Resources

The Contractor shall have the flexibility to restructure the workforce and make changes to employee benefits throughout the term of the Contract, as may be permitted by this Contract and applicable law, to maximize efficiencies. The Contractor shall be responsible for identification and maintenance of critical skills and for the employment of all professional, technical, skilled, and other personnel engaged and to be engaged by the Contractor in the work hereunder, and for the training of personnel, including apprentice programs. Persons employed by the Contractor or its subcontractors or consultants shall not be deemed employees of the Government. The Contractor shall follow the Human Resources (HR) requirements pertaining to workforce transition and management in accordance with Section J, Appendix A, Chapter III, Human Resources.

4.6 Environmental Permits and Applications

In recognition of the Contractor's responsibility to operate in compliance with all applicable environmental requirements, the Contractor is responsible for signing environmental permits and applications as "operator or co-operator" at the sites.

- (i) If bonds, insurance, or administrative fees are required as a condition for such permits, such costs shall be allowable. In the event that such costs are determined by NNSA to be excessive or unreasonable, NNSA shall provide the regulatory agency with an acceptable form of financial responsibility.
- (ii) The Contractor shall accept, in its own name, service of notices of violations or alleged violations (NOVs/NOAVs) issued by Federal or State regulators to the Contractor resulting from the Contractor's performance of work under this Contract, without regard to liability. The allowability of the costs associated with fines and penalties shall be subject to clauses of this Contract. The Contractor shall notify the Contracting Officer promptly when it receives service from the regulators of NOVs/NOAVs and fines and penalties. Nothing stated above shall affect the Contractor's right to challenge or contest the applicability or validity of such NOVs/NOAVs and fines and penalties.

- (iii) In the event of termination or expiration of this Contract, NNSA will require the new Contractor to accept transfer of all environmental permits executed by the Contractor.
- (iv) For SRTO, if this option is exercised, the Contractor shall be responsible for becoming a party to all regulatory compliance agreements, and licenses and permits issued by any federal, state or local regulatory agency associated with the Statement of Work under this Contract, including those previously executed.
- (v) When providing NNSA with documents that are to be signed or co-signed by NNSA, the Contractor will accompany such document with a certification statement, signed by the appropriate Contractor corporate officer, attesting to NNSA that the document has been prepared in accordance with all applicable requirements and the information is, to the best of its knowledge and belief, true, accurate, and complete.

4.7 Defense Nuclear Facilities Safety Board and Other Government Agencies Support and Liaison

The Contractor shall support NNSA in interfacing with various Government agencies such as the Defense Nuclear Facilities Safety Board (DNFSB), Department of Defense and state regulatory agencies.

The Contractor shall conduct activities in accordance with those DOE commitments to the DNFSB which are contained in implementation plans and other DOE correspondence to the DNFSB. The Contractor shall support preparation of responses to DNFSB issues and recommendations which affect or can affect Contract work. The Contractor shall fully cooperate with the DNFSB and provide access to such work areas, personnel, and information as necessary. The Contractor shall maintain a document process consistent with the applicable DOE manual on interface with the DNFSB. The Contractor shall be accountable for ensuring that subcontractors adhere to these requirements.

4.8 Interfaces with Other Site Users

Within the three sites, there are multiple Contractors responsible for a variety of broad-based programs. Within 90 calendar days after the start of transition for the Base Term and if the option for SRTO is exercised, within 60 calendar days after the start of transition, the Contractor shall submit, for NNSA approval, an Interface Management Plan (IMP) for the affected sites to identify and manage site interfaces/services between DOE, NNSA, DOE/NNSA Contractors, and tenant entities engaged in onsite activities. The IMP should identify any costs related to other site users. The IMP shall also address security in accordance with Section J, Appendix A, Chapter II, 1.2.5, Defense Nuclear Security. The Contractor IMP(s) will become part of the Contract as Section J, Appendix H, Interface Management Plan. For the sites, services that require interface agreements shall be provided in accordance with existing or newly developed memoranda of understanding or other appropriate agreements. The Contractor will provide input to the Nuclear Production Site Office regarding effective support toward common site security and operational objectives. The Government will not consider such input if one contractor has any potential Organizational Conflict of Interest with the other contractor.

4.9 Privacy Act System of Records

The Contractor shall design, develop, and maintain a system of records on individuals to accomplish an agency function in accordance with the Contract's Section I Clause entitled "FAR 52.224-2, Privacy Act". The applicable systems of records are available on the Federal Register. A list of applicable records will be finalized after contract award.

4.10 Cost Reduction

The Contractor shall submit a Cost Reduction Proposal (CRP) in accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction".

CHAPTER II. Work Scope Structure

1.0 PROGRAMS

The Contactor shall support the following program activities:

1.1 Defense Programs

1.1.1 Directed Stockpile Work (DSW): The DSW program is responsible for maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile without using underground testing. To meet this goal, DSW provides nuclear warheads and bombs to the Department of Defense (DoD) in accordance with the President's Nuclear Weapons Stockpile Plan. The Plan directs the number and type of weapons that the United States needs to maintain to ensure a credible deterrent. DSW includes weapons and production support programs. These programs are performed to achieve stockpile evaluation, stockpile maintenance, and nuclear weapons assembly and disassembly objectives in accordance with DOE/NNSA requirements plan.

Within DSW, the types of activities include, but are not limited to, the assembly and disassembly of nuclear weapons and individual components in support of Life Extension Programs, the Stockpile Evaluation Program, and dismantlement goals and objectives. In addition, it includes the disposition of weapon components, maintaining a weapons quality control program, providing production information systems, and providing laboratory analytical services. Also, each site performs research, development, testing and engineering work for the current and future production missions in support of the weapon laboratories. At Pantex, the high hazard fabrication of high explosive materials, interim storage of SNM and components, and nuclear weapons assembly/disassembly are key deliverables; Y-12 provides the Canned Subassemblies and Savannah River provides tritium supply management services and loaded reservoirs for the weapons. All operations shall meet DOE/NNSA requirements for nuclear facility safety, criticality safety, and nuclear explosive safety. Projected work scope for the NSE within this program includes, but is not limited to:

- (i) W76 and B61 Life Extension Program (LEP) deliverables;
- (ii) All other LEP deliverables;
- (iii) 800-1200 weapon systems equivalent unit operations per year for assembly/disassembly for: (1) surveillance, LEP and dismantlement; (2) Joint Test Assemblies (JTA); and (3) Limited Life Components (LLCs). These operations are on the B53, B61, W62, W69, W70, W71, W76, W78, W80, B83, W84, and W88 systems; (The W87 LEP (Assembly/Disassembly) is the standard equivalent unit and is equal to 1.0 equivalent unit. All other weapons program deliverables are defined as either 0.xx or 1.yy equivalent units based on the number of hours of production time and whether it is greater or less than that standard.)

- (iv) Meet annual Defense Program deliverables at Y-12 inclusive of assemblies, subassemblies, piece parts, phases of a dismantlement or surveillance, container refurbishments, and shipments from Area 5;
- (v) If SRTO option is included in Contract, 1100-2100 reservoir equivalents per year for loading, 100-170 reservoir equivalents per year for unloading, and 240-350 per year reservoir equivalents for Gas Transfer System Surveillance;
- (vi) Maintain and exercise production process capabilities such as casting, rolling, forming, and machining;
- (vii) Support of multi-program initiatives including Product Realization Integrated Digital Enterprise and Requirements Modernization and Integration;
- (viii) Storage and disposition of excess legacy components from weapons activities;
- (ix) Support expense projects, such as the Manufacturing Operations Management at Y-12 (CD-4) and the Operations System Design and Integration at Pantex (CD-4).

1.1.2 Campaigns: Campaigns are focused efforts to address critical capabilities needed to achieve key future program objectives. Campaigns are technically challenging, multi-function efforts that have definitive milestones and specific work plans. For this Contract these campaigns include, but are not limited to, the Engineering and Readiness Campaigns. Projected work scope within this program includes, but is not limited to:

- (i) Support advanced technology projects in support of the NSE such as lithium technologies, microwave deployment, wet chemistry replacement, lithium oxide replacement, high explosives development;
- (ii) If SRTO option is included in Contract, maintain operational capabilities to perform one or more tritium extractions per year for Tennessee Valley Authority supplied target rods; and
- (iii) Support transition of designated Campaign activities to DSW.

1.1.3 Readiness in Technical Base and Facilities (RTBF): RTBF provides the physical and operational infrastructure required to conduct the scientific, technical, and manufacturing activities of the Stockpile Stewardship Program. The RTBF mission is to ensure that the sites comprising the NSE are implementing the technologies and methods necessary to make construction, operation, energy efficiency and maintenance of production facilities safe, secure, reliable and cost effective and that the right facilities and infrastructure are in place to manufacture and certify the 21st century nuclear weapons stockpile.

The key areas within RTBF include, but are not limited to, construction, construction support and contractor integration, management of containers (onsite and offsite), operations of facilities, management and storage of materials (plutonium, highly-enriched uranium (HEU), Tritium, SNM and other materials), Material Recycle and Recovery, and Program Readiness. Projected work scope within this program includes, but is not limited to:

- (i) Maintain annual mission critical facility availability;
- (ii) Maintain mission critical facilities and mission dependent, not critical facilities;
- (iii) Project Management
 - (A) The Contractor shall perform design and construction activities for all projects under \$10M (Expense and General Plant Projects). New projects over \$10M, including Expense and Line Item, may be included if determined by the NNSA to be in the Government's best interest.
 - (B) The Contractor shall perform initial project development (for all projects regardless of dollar value), project management, design, and construction management activities in accordance with required DOE Orders.
 - (C) The Contractor shall recognize existing Construction Labor Agreements and shall require subcontractors engaged in construction on the construction project to recognize the Construction Labor Agreement.
 - (D) The Contractor shall maintain project baselines, develop Documented Safety Analysis, define quality requirements, ensure National Environmental Policy Act compliance, provide quarterly reports to the NNSA for assigned projects, support external reviews, and meet other requirements as directed by the Contracting Officer.
 - (E) Line Item Projects covered by this Contract include, but are not limited to:
 - Uranium Processing Facility (UPF), see Chapter IV of this SOW
 - CLIN 0001: Contractor retains Design Authority
 - CLIN 0002: Contractor acts as Design Agent
 - High Explosive Pressing Facility (HEPF) (CD-4 thru 2016)
 - Contractor provides design support for the US Army Corps of Engineers
 - Contractor supports construction and completes start-up and commissioning

- Nuclear Facility Risk Reduction Project (Critical Decision (CD) 3B in 2012 and CD-4 in 2016)
 - Contractor completes design
 - Contractor completes construction, start-up, and commissioning
- Security Improvement Project (CD-4 in 2014)
 - Contractor completes construction, start-up, and commissioning

- (iv) Manage and disposition waste generated at the sites;
- (v) Operate enriched uranium recycle and recovery systems at Y-12 to include chemical processing, metal working, purification, accountability, storage, disposition, breaking, casting, high precision machining, oxide conversion, metal production, and canning;
- (vi) Operate lithium recycle and recovery systems at Y-12;
- (vii) Reduce the backlog of Highly Enriched Uranium (HEU) material at Y-12 in order to fully execute Material Disposition Plan and manage newly generated low-equity material by processing to a form suitable for long-term storage or discard of material which is below the Economic Discharge Limit;
- (viii) Safe and secure storage, management, and disposition of nuclear and non-nuclear materials (weapon assemblies, pit staging, war reserve storage, enriched uranium, Li^6 , heavy water, plutonium, and satisfy NNSA and other DOE customer material requirements (also, if SRTO option is included in the Contract, tritium and He^3);
- (ix) Support DOE enterprise-wide nuclear materials management and storage initiatives including, supporting the development and update of material management plans, supporting the DOE Nuclear Materials Management Team, and performing special studies related to uranium, lithium, heavy water as requested;
- (x) Deliver containers according to Shipment Schedules in support of DSW and other missions; and
- (xi) Support footprint reduction efforts at the sites.
- (xii) Operate the Wind Energy System (Pantex Wind Farm) as part of the Pantex Renewable Energy Project (PREP).

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

1.2 Other NNSA Work

1.2.1 Infrastructure and Environment: These programs include Site Stewardship, Long-term Environmental Stewardship, NNSA recapitalization programs, Nuclear Materials Management Team, and energy savings initiatives required by the DOE. Projected work scope for the NSE within this program includes, but is not limited to:

- (i) Overseeing roofing projects under Enterprise-wide Roofing Asset Management Program;
- (ii) Completing recapitalization and deferred maintenance projects; and
- (iii) Completing High Pressure Fire Loop at Pantex (CD-4).

1.2.2 Nuclear Counterterrorism Incident Response and Other Nuclear Emergency Response Programs: The Nuclear Counterterrorism Incident Response (NCTIR) program ensures that capabilities are in place to respond to any DOE/NNSA facility emergency, nuclear, or radiological incident within the United States or abroad, and to provide operational planning and training to counter both domestic and international nuclear terrorism and assure that DOE can carry out its mission-essential functions. This includes DOE's radiological assistance program, NNSA's worldwide weapons accident response management, and other investigations or advisory groups.

1.2.3 Nuclear Non-Proliferation: Defense Nuclear Nonproliferation programs work closely with a wide range of international partners, key U.S. federal agencies, the U.S. national laboratories, and the private sector to detect, secure, and dispose of dangerous nuclear and radiological material, and related weapons of mass destruction technology and expertise. Projected work scope for the NSE within this program includes, but is not limited to:

- (i) Integrate, plan and execute disposition projects for DOE complex-wide inventories of surplus and excess nuclear material;
- (ii) Complete 100% of scheduled deliveries of excess enriched uranium to customers;
- (iii) Provide effective and rapid response to emergent non-proliferation and international security requirements;
- (iv) Partner with DOE/NNSA laboratories to leverage resources and expertise in support of nuclear non-proliferation goals and objectives;
- (v) Support of global nonproliferation activities; and
- (vi) Meet 100% of scheduled deliveries for the supply of nuclear materials to foreign and domestic research and isotope production reactors and other Y-12 customers.

1.2.4 Naval Propulsion: Naval Reactors programs require production and delivery of feedstock supporting their nuclear fuel program. Projected work scope for the NSE within this program includes, but is not limited to:

- (i) Complete 100% of scheduled deliveries of feedstock to NA-30; and
- (ii) Complete annual evaluation, maintain, and submit 20-year plan for NA-30 feedstock requirements.

1.2.5 Defense Nuclear Security (DNS): The DNS program protects NNSA interests from theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts which may cause unacceptable adverse impacts on national security, program continuity, security of employees, and the public. As required by the security assets at each site, the Contractor shall provide a highly trained, competent, qualified, and certified Protective Force (PF) to protect nuclear explosives, SNM, classified matter, and other NNSA property. The actual PF staffing is determined by the posts and patrols and their required hours of operation. The Contractor is expected to provide staffing to meet requirements in a cost-effective manner. These responsibilities include planning, integration, management, and execution of all program elements **excluding** drug and alcohol testing for all site personnel.

PF operations are included in the scope of this Contract for Pantex and Y-12 and not SRTO. The Government will furnish PF operations at the SRTO. In accordance with the Contract's Section H, H-9, Limitation on Protective Force Subcontracting, the Contractor shall not subcontract protective force services and responsibilities.

The Contractor shall interface, as directed by the CO, with other contractors that perform safeguards and security work within the Oak Ridge Reservation and the Savannah River Site. In addition, at Pantex and Y-12 the scope entails coordination with local law enforcement agencies as well as management and operation of all shared security support services (e.g., Technical Surveillance Countermeasures and pre-event discovery operations) and facilities (inclusive of the Central Training Facility) in Oak Ridge, as well as implementation of the "Graded Security Protection Policy". The Contractor shall establish a formal training program which ensures appropriate personnel are competently trained, and fully qualified to perform the tasks within their assigned responsibilities under both normal and emergency conditions. This responsibility also includes the DOE standardized security training of DOE-Oak Ridge PF personnel at the Central Training Facility. For other PF contractors within the ORR, the Contractor shall develop and conduct site-specific training curricula through coordination with the affected contractors.

1.2.6 Cyber Security: The NNSA Cyber Security program ensures that sufficient information technology and information management security safeguards are implemented throughout the NSE to adequately protect information assets. The overarching goal is to implement a flexible, comprehensive, full life-cycle, risk-

based cyber security program including a cyber security architecture aligned with the NNSA enterprise architecture and plans of the NNSA Office of the Chief Information Officer. The Contractor shall allow full, unfettered access to security logs and cyber security sensor data to the Joint Cyber Coordination Center (JC3) to provide cyber security situational awareness for the NSE. The Contractor shall implement a cyber security baseline program and provide adequate performance metrics to generate a risk-based budget process for the NSE.

1.3 Work for Others/Other Reimbursable Work

This includes the management and execution of other assigned programs related to national security missions for DOE, other Government agencies, or privately owned organizations on a non-interference basis with NNSA work as approved by the Contracting Officer.

2.0 FUNCTIONAL SUPPORT

The Contractor shall provide:

2.1 General Support:

General management and program management functions including: executive direction, human resources, financial support services, procurement, legal services, central administrative services, program and project controls, information outreach, information services, and other general support functions.

In addition, provide legacy health and welfare benefits administration regarding former Contractor employees at Portsmouth Gaseous Diffusion Plant, located near Piketon, Ohio and Paducah Gaseous Diffusion Plant, located approximately 15 miles west of Paducah, Kentucky. Provide legacy pension, health and welfare benefits administration regarding former Contractor employees at K-25, located five miles west of Y-12.

2.2 Mission Support

Mission support functions including environmental, safety and health, facilities management, maintenance, utilities, safeguards and security, logistics support, quality assurance, and laboratory/technical support.

In addition, provide services and support, as directed by NNSA, in the following areas:

- (i) Office of Secure Transportation facilities;
- (ii) DOE Central Scrap Management Office;
- (iii) DOE Business Center for Precious Metals Sales and Recovery;
- (iv) DOE Tri-Laboratory Office; and
- (v) Sandia-operated Weapons Evaluation Test Laboratory (WETL) operations.

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 B&W Technical Services Pantex, LLC and B&W Technical Services Y-12, LLC under Contracts DE-AC04-00AL66620 and DE-AC05-00OR22800, and the Protective Services subcontract DE-AC55-07NA25750 between G4S Government Solutions, Inc., d/b/a WSI-Oak Ridge and B&W Technical Services Y-12, LLC, respectively as of the effective date of the Contract, and Tritium Operations and select employees of the Savannah River Nuclear Solutions, LLC Contract DE-AC09-08SR22470 as of the date of SRTO option exercise.

Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor upon the beginning of the Base Term at Y-12 and PX and new hires other than Incumbent Employees at SRS who perform Tritium Operations work under this Contract.

2.0 WORKFORCE TRANSITION

The following are requirements the Contractor shall carry out during the Transition Term. After the effective date of the Contract, the Contractor may propose alternate due dates for the deliverables described in 2.1, Staffing Plan, 2.2, Pay & Benefits, 2.3, Incumbent Employees Right of First Refusal, and 2.4, Advance Understanding on Human Resources. The Contracting Officer may approve such changes provided the deliverable dates make transition more effective and efficient for both parties.

2.1 Staffing Plan

No later than 30 calendar days after the effective date of the Contract the Contractor shall provide NNSA its plan for achieving the right workforce size and skills mix and an estimate of the number of employees at each site to whom they expect to make employment offers.

2.2 Pay & Benefits

Consistent with the requirements identified in **3.0 COMPENSATION** and **4.0 BENEFITS** below, the Contractor shall develop and submit for NNSA approval an integrated pay and benefits program to cover non-bargaining unit Incumbent and non-bargaining unit Non-Incumbent Employees at PX & Y12. It is expected that the benefits program will be developed utilizing best practice and market based design concepts to achieve maximum efficiency and lower cost through such features as vendor and benefit plan consolidation. If the SRTO option is exercised, the Contractor shall provide information regarding their plans to incorporate SRTO employees into their integrated pay and benefits program.

2.2.1 No later than 45 calendar days after the effective date of the Contract, the Contractor shall submit for NNSA approval all proposed benefit plans. The submission shall include all plan documents that will describe benefits provided to employees at Y12 and PX including existing plans to which the Contractor becomes a sponsor at the beginning of the Base Term as well as newly proposed plans.

The submission shall also include an “Employee Benefits Value Study” comparing the proposed benefit plans for non-bargaining unit Incumbent Employees and non-bargaining unit Non-Incumbent Employees using the NNSA Consolidated Employee Benefit Value Study methodologies and comparator companies, to be provided by the Contracting Officer, described in 4.1.5 below. Contracting Officer’s approval of the Contractor’s benefits program will be contingent on the net benefit value not exceeding the comparator group by more than five percent.

2.2.2 No later than 120 calendar days after the effective date of the Contract, the Contractor shall submit a plan with a timeline for implementing an integrated Compensation system that meets the criteria defined **3.0 COMPENSATION** below.

2.3 Incumbent Employees Right of First Refusal

The Contractor shall use the Transition Term to make hiring decisions. The Contractor shall give a right of first refusal of employment for every position identified by the Contractor as necessary for completing the requirements of the contract (other than positions occupied by Key Personnel and managers who directly reported to them) under this Contract to Incumbent Employees as defined in **1.0 DEFINITIONS** who meet the qualifications for a particular position. The Contractor shall provide a written offer of employment that identifies the individual’s pay and a summary of the benefits package that will be available to the individual. Incumbent employees offered the same position shall be provided their same base salary/pay rate in existence (provided by the incumbent Contractor) at the time the offer is made. Incumbent employees offered a different position than the position they are performing at the time the offer is made shall be provided pay commensurate with the position. Such offer shall be provided to employees as soon as possible, however, no later than no later than 90 calendar days after the effective date of the Contract.

2.4 Advance Understanding on Human Resources

The Contractor shall submit no later than 120 calendar days after the effective date of the Contract a proposed Human Resources Plan. The Plan shall describe the Contractor’s proposed Human Resources policies, programs and related expenses that will have cost implications under the Contract. The plan should provide information showing that these proposed policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce. This document will serve as the starting point for negotiation with which NNSA and the Contractor will reach an advance understanding on Contractor Human Resources costs. The advance understanding enables both the Contractor and the NNSA to determine allocability, allowability and reasonableness of costs prior to incurrence, thereby avoiding (to the maximum extent possible) subsequent disallowance and disputes; provide appropriate and reasonable compensation levels to recruit and retain Contractor employees to meet NNSA mission objectives; and assure prudent expenditure of public funds. The language identified in **3.0 COMPENSATION, 4.0 BENEFITS, 5.0 LABOR RELATIONS, and 6.0 WORKFORCE PLANNING** below will serve as the governing text for development of the advance understanding. The Personnel Appendix will include but is not limited to such topics as compensation, welfare benefits, labor relations, retirement plans, severance schedules, holidays, vacation, etc., or any other human resource costs the Contractor or NNSA deems necessary. It is understood that any advance understanding will be

appended to the Contract as the Personnel Appendix (Section J, Appendix I, Personnel Appendix).

3.0 COMPENSATION

The Contractor shall recruit and retain a highly skilled, motivated, and experienced workforce in a cost effective manner capable of carrying out the technical and other requirements set forth elsewhere in this Statement of Work.

3.1 Total Compensation System

Consistent with the requirement in 2.2, Pay and Benefits, the Contractor shall establish an integrated, market based pay and benefit program. The objective is to provide a level of total compensation which, within available funds, attracts, motivates and retains a highly competent workforce and maintains a competitive position in the applicable labor markets.

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system including a compensation system Self-Assessment Plan consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services" (Total Compensation System). In addition, the Contractor's total compensation system shall include the following components:

- (i) Philosophy and strategy for all pay delivery programs.
- (ii) System for establishing a job worth hierarchy.
- (iii) Method for relating internal job worth hierarchy to external market.
- (iv) System that includes a documented method and process for evaluating individual job performance and that bases individual and/or group compensation decisions on individual performance and Contractor performance as appropriate. In addition, the system must show the link to the annual evaluation of Contractor performance for individual compensation actions as appropriate.
- (v) Method for planning and monitoring the expenditure of funds.
- (vi) System for internal controls and self-assessment.
- (vii) System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be pro-rated according to the amount of time the employee spent performing work under this Contract.

3.2 Cash Compensation

The Contractor shall submit the following to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract.

- 3.2.1** Any additional compensation system self-assessment data requested by the Contracting Officer that may be needed to validate and approve the total compensation system.
- 3.2.2** Any proposed major compensation program design changes prior to implementation.
- 3.2.3** An Annual Compensation Increase Plan (CIP). The CIP shall be provided to the Contracting Officer on October 1 annually and shall include the following components and data:
- (i) Comparison of average pay to market average pay;
 - (ii) Information regarding surveys used for comparison;
 - (iii) Aging factors used for escalating survey data and supporting information;
 - (iv) Projection of escalation in the market and supporting information;
 - (v) Information to support proposed structure adjustments, if any;
 - (vi) Analysis to support special adjustments;
 - (vii) Funding requests and supporting analysis for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement;
 - (A) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous plan year.
 - (B) All pay actions granted under the CIP are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end.
 - (C) Specific payroll groups (e.g., exempt, nonexempt, key personnel) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer.
 - (D) The Contracting Officer may unilaterally adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).
 - (E) The Contractor is authorized to make minor shifts (up to 10%) in funds between payroll groups without prior Contracting Officer approval. The Contractor shall notify the Contracting Officer at the time funds are shifted.

(viii) A discussion of the impact of budget and business constraints on the CIP amount; and

(ix) Discussion of relevant factors other than market average pay (e.g., turnover and offer-to-acceptance statistics, collective bargaining provisions, geographic considerations, total compensation).

3.2.4 The compensation actions for all Key Personnel shall be submitted for approval upon replacement. The top contractor official (i.e., Nuclear Production Contract Plant Manager or equivalent) salary actions including merit pay increases shall be submitted annually to the Contracting Officer for approval. The top contractor official's approved reimbursed base salary will serve as the maximum allowable salary reimbursement under the Contract. With these compensation actions, the Contractor shall provide supporting justification related to internal and external equity, individual performance and the Application for Contractor Compensation Approval Form (DOE 3220.5).

3.2.5 For any proposed establishment of an Incentive Compensation Plan (variable pay plan/pay-at-risk), documentation shall be provided to the Contracting Officer no later than 60 days prior to proposed implementation. Such proposal must contain:

- (i) The design of the Incentive Compensation Plan, the funding methodology, and linkage to Contract performance measures;
- (ii) Requirement for approval of Incentive Compensation Plan design changes by the Contracting Officer prior to implementation;
- (iii) Requirement for an annual approval, prior to the performance period, of the total dollar amount of the pool, the eligible positions, and linkage to Contract performance goals;
- (iv) Requirement for policy that provides a specific passover rate, i.e., percent of participants who will not receive an incentive;
- (v) Requirement for an annual summary report on distributions made under an Incentive Compensation Plan; and
- (vi) For any Executive Incentive Plans, a requirement for pay at risk.

3.2.6 Assignments 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 approved by the Contracting Officer prior to beginning the assignment. Requests shall be submitted 30 days prior to the desired start date. The Contractor shall submit a report of all such assignments, to include the total cost of each assignment, reason for assignment, location, duration, and cost-share arrangement to the Contracting Officer by January 30 of each year unless otherwise specified.

3.2.7 The Contractor's Total Compensation System (e.g., to be set forth in Section J, Appendix I, Personnel Appendix), shall meet the tests of allowability in FAR 31.205-6 and DEAR 970.3102-05-6, be fully documented, be consistently applied, and be acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be approved by the Contracting Officer. Any changes to the Total Compensation System shall be submitted to the Contracting Officer 60 days prior to implementation. Changes that impact current or future costs shall be approved by the Contracting Officer prior to implementation.

3.2.8 As a part of the Human Resources Plan the Contractor shall submit a severance plan. The severance plan must include the notification period, pay-in-lieu policy, and the severance schedule. Supporting documentation must include information regarding standards from nationally recognized sources and or comparator firms (including corporate parents).

Severance Pay is not payable to an employee under this Contract if the employee:

- (i) Voluntarily separates, resigns or retires from employment, except that in the event the Contractor conducts an NNSA approved voluntary separation program;
- (ii) Is offered employment with a successor/replacement Contractor;
- (iii) Is offered employment with a parent or affiliated company; and/or
- (iv) Is discharged for cause.
- (v) Occupies one of the Key Positions identified in Section J, Appendix J.

Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement Contract.

3.3 Reports and Information: Compensation

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

- (i) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure, showing actual against approved amounts, no later than 30 days after Compensation Increase Plan expenditures.
- (ii) Other compensation reports as requested by the Contracting Officer.

4.0 BENEFITS

4.1 Assumption of Existing Pension Plan

The Contractor will be required to become a sponsor of the existing pension plans and other Post Retirement Benefit Plans (PRB), as applicable, with responsibility for management and administration of the plans, including maintaining the qualified status of those plans. The Contractor shall carry over the length of service credit and leave balances for Incumbent Employees accrued as of the date of the Base Term.

4.1.1 No presumption of allowability will exist when the Contractor implements a new benefit plan or makes changes to existing benefit plans until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans which will result in additional costs. Justification for new benefit plans and changes to plan design or funding methodology which will increase costs must include cost impact, and the basis of determining cost. The Contractor shall notify the Contracting Officer prior to implementation of benefit plans that are either new or first time for the site, are a significant impact to employees, or which may set a precedent for the DOE/NNSA contractor system.

4.1.2 Cost reimbursement for pension and other benefit programs sponsored by the Contractor for non-bargaining and bargaining unit employees will be based on the "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described in 4.1.5.1 and 4.1.5.2 below.

4.1.3 The Contractor shall notify the Contracting Officer prior to terminating any benefit plan during the term of the Contract.

4.1.4 Service Credit for cost reimbursement for employee benefits to include PRB eligibility will be determined in accordance with NNSA Supplemental Directive NA SD O 350.1, M&O Contractor Service Credit Recognition.

4.1.5 Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall participate in and/or submit the studies required in paragraphs 4.1.5.1 and 4.1.5.2 below. The studies shall be used by the Contractor in calculating the cost 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, must be completed every two years or as directed by the Contracting Officer. The Contractor will utilize the comparator companies previously utilized in the last NNSA Consolidated Benefit Value Study. If any of the comparator companies no longer participate, the Contractor will recommend replacement companies for approval by the Contracting Officer. The Contractor shall include major non-statutory benefit plans offered by the Contractor, including qualified defined benefit (DB) and defined contribution (DC) retirement and capital accumulation plans and death, disability, health, and paid time off welfare benefit programs in the Value Study. 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.

An Employee Benefits Value Study for bargaining unit employees must be completed 6 months prior to the end of the bargaining unit Contract. The Benefits Value Study must include at least 15 comparator companies approved by the Contracting Officer. The Value Study must include major non-statutory benefit plans offered by the Contractor, including qualified DB & DC retirement and capital accumulation plans and death, disability, health, and paid time off welfare benefit programs. 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.

4.1.5.2 An Employee Benefits Cost Survey Comparison for non-bargaining and bargaining unit employees, must be completed annually. The cost Survey must utilize a professionally recognized measure approved by the Contracting Officer that analyzes the Contractor's employee benefits cost for employees on a per capita basis per full time equivalent employee and compares it with appropriate comparator data.

4.1.5.3 When the weighted average net benefit value for all employees (including different tiers of benefits or groups of employees) exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer no later than 60 days after the Benefit Value Study is conducted.

4.1.5.4 When the average total benefit per capita cost exceeds the comparator group by more than five percent, the Contractor shall submit an analysis of the specific plan costs that are above the per capita cost range or total benefit cost as a percent of payroll and a corrective action plan within 60 days after the Benefits Cost Survey is conducted, to achieve conformance with the comparator group.

4.1.5.5 Within two years of Contracting Officer approval of the Contractor's corrective action plan for non-bargaining employees, or upon the next collective bargaining period for bargaining unit employees, the Contractor shall align employee benefit programs with the benefit value and per capita cost range as approved by the Contracting Officer.

4.1.6 In the event the NNSA determines it is appropriate to spin off any portion of any defined benefit plan in order to address benefits for employees who used to perform work under the former M&O Contract, but who subsequently perform work under a different NNSA contract, the Contractor shall negotiate in good

faith regarding the disposition of pension plan assets and liabilities consistent with direction from the Contracting Officer.

4.2 Reports and Information: Benefits

The Contractor shall provide to the Contracting Officer:

- (i) Annually, the Report of Contractor Expenditures for Employee Supplemental Compensation (DOE F 3220.8); and
- (ii) Quarterly, input requested benefits data into DOE's iBenefits pension and benefits management system.

4.3 Workers' Compensation

- 4.3.1** The Contractor, unless workers' compensation coverage is provided through a state funded arrangement or a corporate benefits program, shall submit to the Contracting Officer for approval all new workers' compensation policies and all initial proposals for self-insurance. Additionally, Contractors shall provide copies to the Contracting Officer of all renewal policies for workers' compensation.
- 4.3.2** Workers' compensation loss income benefit payments when supplemented by other programs (such as salary continuation, short term disability) are to be administered so that the total benefit payments from all sources shall not exceed 100% of employee's net pay.

4.4 Pension Plans

- 4.4.1** For cost allocability and reimbursement purposes, any defined benefit (DB) or defined contribution (DC) pension plans established by the Contractor and any DB or DC plans for which the Contractor assumes sponsorship upon the start of the Base Term, shall be maintained consistent with the requirements of the Internal Revenue Code (IRC), Employee Retirement Income Security Act of 1974 (ERISA) as amended and any other applicable laws.
- 4.4.2** Any pension plan maintained by the Contractor, for which NNSA reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan which provides credit for service not performed under a DOE cost-reimbursement Contract. Each Contractor pension plan shall be submitted to an annual, full-scope audit by an outside independent organization and the resulting report, submitted to NNSA, must provide the accounting details specified in ERISA Sections 103 and 104.
- 4.4.3** The Contractor will be reimbursed for pension contributions in the amounts necessary to ensure that the plans are funded to meet the annual minimum required contribution under ERISA, as amended. If a minimum contribution payment is required to avoid benefit restrictions to Plan participants, the Contractor shall notify the Contracting Officer at least sixty (60) days prior to the date the payment is due. Reimbursement above the annual ERISA required minimum contribution will require prior approval of the Contracting Officer. The Contracting Officer will take into consideration all pre-funding balances and

funding standard carryover balances when evaluating whether to approve reimbursement above the minimum required contribution. Timing of a Contractor's contributions to a plan must enable a plan's actuary to certify that a plan is adequately funded at the beginning of a plan year.

4.4.4 At least 60 days prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required in 4.4.4.1 and 4.4.4.2 below, as applicable, to the Contracting Officer for approval or disapproval and a determination as to whether the costs to be incurred are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

4.4.4.1 For proposed changes to DB and DC plans that are not mandated by law the Contractor shall provide the following to the Contracting Officer:

- (i) A clean copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout;
- (ii) An analysis of the impact of any proposed changes on actuarial accrued liabilities and an analysis of relative benefit value and a cost study index;
- (iii) Except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from legal counsel for purposes of compliance with all legal requirements applicable to private sector DB pension plans;
- (iv) The Summary Plan Description; and
- (v) Any such additional information as requested by the Contracting Officer.

When changes to DB and/or DC plans are required by law, the Contractor must provide a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout no later than 30 days before the new amendment is to take effect.

4.4.4.2 The Contractor shall obtain the advance written approval of the Contracting Officer for any required pension plan changes that are not required by law and which may increase costs or liabilities, and any proposed special programs (including, but not limited to, plan-loan features, employee contribution refunds, or ancillary benefits) and shall provide the Contracting Officer 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.

4.4.5 When operations at a designated NNSA facility are terminated and no further work is to occur under the prime Contract, the following apply.

- 4.4.5.1 No further benefits for service shall accrue;
- 4.4.5.2 The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the NNSA Contract;
- 4.4.5.3 The Contractor shall base its DB pension liabilities attributable to NNSA Contract work on the market value of annuities or dispose of such liabilities through a competitive purchase of annuities. The Contractor, as pension plan sponsor, must adhere to Department of Labor guidance set forth at 29 CFR 2509.95-1 regarding selection of an annuity provider for the purpose of benefit distributions from a DB pension plan;
- 4.4.5.4 Assets shall be determined using the “accrual-basis market value” on the date of termination of operations; and
- 4.4.5.5 NNSA and the Contractor shall establish an effective date for spinoff or plan termination. On the same day as the Contractor notifies the IRS of the spinoff or plan termination, all NNSA assets assigned to a spun-off or terminating plan shall be placed in a high-yield, fixed-income portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets. The portfolio shall be rated no lower than Standard & Poor's “AA.”

4.4.6 Terminating Plans.

- 4.4.6.1 NNSA Contractors shall not terminate any pension plan (commingled or site specific) without notifying the Department at least 60 days prior to the scheduled date of plan termination.
- 4.4.6.2 To the extent possible, the Contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market. The Contractor, as pension plan sponsor, must adhere to Department of Labor guidance set forth at 29 CFR 2509.95-1 regarding selection of an annuity provider for the purpose of benefit distributions from a DB pension plan. The Contractor shall apply the assumptions and termination procedures of the Pension Benefit Guaranty Corporation.
- 4.4.6.3 Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.

- 4.4.6.4 If ERISA or IRC rules prevent a full transfer of excess NNSA reimbursed assets from the terminated plan, the Contractor shall pay any deficiency directly to NNSA according to a schedule of payments to be negotiated by the parties.
- 4.4.6.5 On the same day as the Contractor notifies the IRS of the plan termination, all NNSA assets will be placed in a high-yield, fixed-income portfolio until full disposition of the terminating plan's liabilities. The portfolio shall be rated no lower than Standard & Poor's "AA."
- 4.4.6.6 NNSA liability to a commingled pension plan shall not exceed that portion which corresponds to participants' service accrued for their work under an NNSA Contract. The NNSA shall have no other liability to the plan, to the plan sponsor, or to the plan participants.
- 4.4.6.7 After all liabilities of the plan are satisfied, the Contractor shall return to NNSA an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to NNSA. Such amount and such earnings shall be subject to NNSA audit. To affect the purposes of this paragraph, NNSA and the Contractor may stipulate to a schedule of payments.

4.4.7 Post Contract Responsibilities for Pension and Other Benefit Plans

- 4.4.7.1 If this Contract expires or terminates and NNSA has awarded a Contract under which the new Contractor becomes a sponsor and assumes responsibility for management and administration of the pension or other benefit plans covering active or retired Contractor employees with respect to service, the Contractor shall cooperate and transfer to the new Contractor its responsibility for sponsorship, management and administration of the plans consistent with direction from the Contracting Officer. If a comingled plan is involved, the Contractor shall:
- (i) Spin off the NNSA portion of any 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 nine 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.

4.4.8.1 The annual actuarial valuation report for each NNSA-reimbursed pension plan. When a pension plan is commingled, the Contractor shall submit separate reports for NNSA's portion and the plan total.

4.4.8.2 Copies of IRS Forms 5500 with Schedules for each NNSA-funded pension plan, no later than that submitted to the IRS.

4.4.8.3 Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

4.4.8.4 The annual Pension Management Plan as described below (4.5 Pension Management Plan) by January 30 of each year.

4.5 Pension Management Plan

4.5.1 The Contractor shall submit a plan for management and administration (Pension Management Plan) for each defined benefit pension plan (Plan) for which the Department has a continuing obligation to reimburse pension contributions that is consistent with the terms of this Contract and which includes projected assets, projected liabilities, and estimated contributions and the prior year's actuarial valuation report annually on January 30.

4.5.2 The Pension Management Plan shall include:

4.5.2.1 The Contractor's best projection of the contributions which it will be legally obligated to make to the Plan(s), beginning with the required contributions for the current fiscal year, based on the latest actuarial valuation, and continuing for the following four fiscal years. This estimate will be based upon compliance with all applicable legal requirements relating to the determination of contributions and upon the assumptions set out in the Plan document(s). All contribution calculations should reflect payments made during DOE fiscal years, beginning Oct 1, through September 30, and the next succeeding six fiscal years. Please include a summary of the key actuarial assumptions used to determine the required contribution. All projections must be based upon the most recently available asset information for the Plan. For example, for a Plan with a July 1 valuation date, project the July 1, value of assets for the current year to be used in the calculation from the actual January 1, value of assets from the same year.

4.5.2.2 If the actuarial valuation submitted pursuant to the annual Pension Management Plan update indicates that the sponsor of the Plan must impose benefit restrictions, the Contractor shall provide the following information:

- (i) The type of benefit restriction that will take place;
- (ii) The number of Contractor employees that potentially could be impacted and the nature of the restriction (e.g., financial impact) by imposition of the required benefit restriction;
- (iii) The amount of money that would need to be contributed to the Plan and the timing of such contribution to avoid legally required benefit restrictions; and

- (iv) A recommendation regarding whether the additional money should be contributed to the Plan and the rationale for the recommendation.

4.5.2.3 A detailed discussion of how the Contractor intends to manage the Plan(s) to maximize contribution predictability (i.e. forecasting accuracy) and to contain current and future costs, to include the rationale for selection of all Plan assumptions (i.e., actuarial experience studies) that determine the required contributions and which impact the level and predictability of required contributions. As part of the Contractor's plan to maximize contribution predictability, the Contractor may propose funding strategies other than ERISA minimums for NNSA's consideration and approval. The Contractor shall submit the following for NNSA to consider in deciding on the alternate funding strategy:

- (i) Identify whether the current year additional amount can be absorbed within the current operating budget;
- (ii) Discuss the integration of Plan's funding strategy and investment strategy taking into consideration the plan's demographic profile, liability duration, and impact of current year funding decisions on future year contribution requirements;
- (iii) Discuss the strategy for achieving fully funded status and protecting against erosion of the Plan's funded status;
- (iv) Discuss the strategy for specifically protecting any pension funding contributions reimbursed in excess of the minimum required contribution against the risk of significant loss; and
- (v) Discuss whether the plan has a prefunding or funding standard carryover balance that could be used to improve the plan's AFTAP without requiring additional contributions. Provide a rationale regarding the recommended use of the available balance(s).

4.5.2.4 An assessment to evaluate the effectiveness of the Contractor's Plan(s) investment management/results. The assessment must include at a minimum: a review and analysis of Plan investment objectives and asset allocations; results of the most recent asset liability study and investment policy review; the strategies employed to achieve the Plan's investment objectives; and the methods used to monitor execution of those strategies and the achievement of the investment objectives. The Contractor shall also identify its plans, if any, for revising any aspect of its Pension Management Plan based on the results of the review.

Within thirty (30) days after the date of the submission, appropriate Contractor representatives will meet with the Contracting Officer and other DOE/NNSA representatives to discuss the Contractor's proposed Pension Management Plan. The Contractor must be prepared to discuss

any differences between the prior fiscal year's projected pension contributions for future fiscal years and the most recent projected pension contributions for future fiscal years and the rationale for any such discrepancies. In addition, discrepancies between the actual contributions made for the most recent fiscal year preceding the meeting and the projected contributions for that fiscal year and the rationale for any such discrepancies, and funding strategies for the Plan will be discussed.

5.0 LABOR RELATIONS

- (i) The Contractor shall comply with the National Labor Relations Act, DEAR Subpart 970.2201, and all applicable Federal and State labor laws.
- (ii) The Contractor shall meet with the Contracting Officer or designee(s) for the purpose of determining the allowability of cost associated with the Contractor's economic bargaining objectives, prior to negotiation of any collective bargaining agreement, extension or revision thereto. As part of the collective bargaining process, the Contractor shall notify the Contracting Officer before submitting or agreeing to any collective bargaining proposal which could increase costs under this Contract or which could involve other items of special interest to the Government. As part of the collective bargaining process, the Contractor shall obtain the approval of the Contracting Officer in advance before proposing or agreeing to changes in any wages and or changes in any pension or other benefit plans.
- (iii) The Contractor shall provide an electronic copy of the bargaining agreement to the Contracting Officer 30 days after formal ratification. The Contractor shall provide the "Report of Settlement" 30 days after formal ratification using the Work Force Information System (WFIS).
- (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 advise the Contracting Officer of the following:
 - (A) Possible strike situations or other actions affecting the continuity of operations including work stoppages and picketing;
 - (B) Formal action by the National Labor Relations Board (NLRB) including but not limited to issuance of a complaint against the Contractor. Copies of complaints, settlement agreements, judgments and any other documents issued in connection with Contractor actions with respect to labor practices shall be provided to the Contracting Officer;
 - (C) Recourse to procedures under the Labor-Management Relations Act of 1947 as amended or any other state law;
 - (D) Any grievance scheduled for arbitration under any collective bargaining agreement that has the potential for significant economic or other impact as well as the decision of the arbitrator; and

- (E) Other significant issues that may involve review by other federal or state agencies.

6.0 WORKFORCE PLANNING

6.1 Workforce Planning - General

The Contractor shall analyze workforce requirements consistent with current and future mission requirements and develop appropriate workforce transition strategies to ensure appropriate skills are available at the right time, in the right number, in the right place. Particular attention shall be paid to current and future critical skills. This analysis shall be available for review upon Contracting Officer request.

6.2 Reductions in Contractor Employment – Workforce Restructuring

6.2.1 Voluntary Separations: In order to minimize the number of involuntary separations and mitigate the impact on affected employees, the Contractor will consider in consultation with the Contracting Officer, the use of a Voluntary Separation Program (VSP) before consideration is given to conducting an Involuntary Separation Program (ISP) when workforce restructuring is necessary. The Contractor shall submit the VSP for approval by the Contracting Officer prior to implementation regardless of the number of employees involved. No reimbursement of costs associated with VSPs will be allowable if not approved by the Contracting Officer prior to implementation.

6.2.2 Involuntary Reductions in Contractor Employment

6.2.2.1 If the restructuring involves separating between 10-99 employees in a rolling twelve-month period, the Contractor shall notify the Contracting Officer no later than 15 days in advance of the action.

6.2.2.2 For restructuring actions that involve separating between 50-99 employees, the Contractor shall prepare a specific workforce restructuring plan and submit the plan to the Contracting Officer for informational purposes. In addition, the Contractor shall perform a diversity impact analysis and provide a copy of the analysis to the NNSA Site Counsel at the Nuclear Production Site Office for any restructuring actions that involve 50 or more employees within a 12 month period.

If the restructuring may involve the separation of 100 or more employees within a 12-month period, the Contractor shall submit a specific workforce restructuring plan, for approval by the Contracting Officer, to enable compliance with Section 3161 of the National Defense Authorization Act for Fiscal Year 1993 at a minimum, no later than 90 days in advance of the date the Contractor needs to begin notification to employees in accordance with the law and its attendant timeframes to effect the separations.

6.2.2.3 All notifications to the NNSA must contain pertinent information such as reasons, costs, dates, and numbers of impacted employees.

- 6.2.3** Any payment of benefits beyond those already approved in the Contract must be approved by the Administrator, NNSA, through the Contracting Officer.

CHAPTER IV. Uranium Processing Facility (UPF)

1.0 INTRODUCTION

As discussed in Section J, Appendix A, Chapter II, Work Scope Structure, the Contractor retains Design Authority for the Uranium Processing Facility at Y-12 under CLIN 0001. CLIN 0002 (defined herein, as Design Agent) is inclusive of all project management elements associated with the design, procurement, construction, start-up, and turnover to operations of the facilities and processes for UPF. Applicable requirements discussed in Section J, Appendix A, Chapter I, Objectives, Scope, and Requirements, Chapter II, Work Scope Structure, and Chapter III, Human Resources, also apply to CLIN 0002, and supplemental requirements for CLIN 0002 are contained in this Chapter.

2.0 BACKGROUND

The UPF project is the solution to meeting NNSA's mission need for Enriched Uranium (EU) processing – by consolidating Y-12's EU processing and manufacturing into appropriately sized modern facilities that meet current safety and security requirements while eliminating the high cost and risk of maintaining Y-12's aging infrastructure. Existing EU processing equipment and technologies are outdated and oversized for the current mission. Y-12 facilities face significant deferred maintenance, require intensive routine maintenance, and are subject to escalating operating, utility, and maintenance costs. Worker protection relies on administrative controls and personal protection equipment rather than engineered controls. Replacement of the Y-12 facilities and equipment will be required to sustain operations, incorporate updated technology, and right-size processes.

3.0 ACQUISITION STRATEGY

The government may evaluate discrete scopes of work to determine the appropriate acquisition strategy for UPF design and construction. In response to these decisions, the Contractor shall be prepared to have:

- (i) The appropriate systems, processes, and procedures in place to support the full suite of potential Federal acquisition strategies, such as Direct Federal Contracting and Interagency Agreements;
- (ii) The ability to perform in a wide variety of roles on behalf on the Government, including serving as an owner's agent, construction manager, or staff augmentation (e.g. estimating, proposal development, etc.); and
- (iii) A full suite of contracting mechanisms in its agreement with the Government including fixed-price, cost-reimbursement, incentive, indefinite-delivery, time-and-materials, and agreements as applicable and deemed necessary, in those cases where the Government decides not to perform the work directly (Note: the terms and conditions of contract may require modification for each type).

4.0 ROLES OF THE DESIGN AUTHORITY AND DESIGN AGENT

The role of the Design Authority will be performed by Mission Engineering under CLIN 0001 and will consist of defining the operational, high-level design, safety basis, and mission

requirements for the UPF engineering scope. The Design Authority is responsible for establishing and recommending approval of the UPF Safety Basis. The Design Authority is responsible for ensuring the operational, design, safety basis, and mission requirements are met. The Design Authority will provide conflict resolution and interpretation of design requirements. The Design Authority will provide oversight of design activities.

The role of the Design Agent will be performed by UPF Engineering under CLIN 0002, using the operational, design, safety basis, and mission requirements as defined by the Design Authority. The Design Agent is responsible for the professional quality, technical accuracy and adequacy, and the coordination of all designs, drawings, specifications and other services furnished under this contract. The Design Agent prepares all design documents and supporting information, maintains the design basis, controls configuration, and trends performance of systems.

The Contractor will be responsible for developing a detailed division of responsibility and interaction protocol between the Design Authority and Design Agent. This protocol will be contained within an Interface Control Document that will be jointly approved by the UPF Project Director and the Mission Engineering Manager.

5.0 DESIGN CODE OF RECORD

The Design Code of Record (COR), a term that shall be utilized for this Contract under CLIN 0002, refers to the requirements that are in effect during the entire life cycle of a facility or item of equipment, and includes Federal and state laws, DOE requirements, and specific design criteria defined by national codes and standards. The Design COR and its supporting documents form a single reference source for project design, construction, startup, operating, and decommissioning requirements. The Design COR organizes these documents in a manner that supports accessibility, traceability, and maintainability of facility requirements. Establishing the Design COR early in the design phase, and maintaining it under change control for the entire facility lifecycle, improves project costs, schedule, and safety, which enables effective turnover of the facility requirements for design, construction, operation, and decommissioning if the Contractor changes.

The UPF Project is an engineering, procurement, and construction (EPC) project that will be designed, constructed, tested/started up, and turned over to operations, in accordance with an established and approved Design COR, which is specifically applicable to the operational and mission requirements for the UPF engineering scope. The UPF project has adapted this approach to ensure that the UPF Design COR is established early in the design phase by the Contractor, accepted by NNSA early in the Critical Decision process, and controlled by both NNSA and the Contractor during design, construction, operations, and decommissioning.

The *Uranium Processing Facility (UPF) Design Code of Record*, PL-RM-801768-A001, herein referenced as “UPF Design Code of Record,” along with the additional documents and standards identified in the *Uranium Processing Facility (UPF) Other Basis Records*, PL-RM-801768-A002, herein referenced as “UPF Other Basis Records,” shall be adopted as a control point for establishing the project’s design basis and shall remain under change control for the life of the project. This adoption does not constitute validation or approval of the content of these documents, since final approval will occur following the Contractor’s submittal of the Conceptual Safety Design Report.

The UPF Federal Project Director, herein referenced as “FPD,” shall be the final approval authority for the UPF Design Code of Record. Any equivalencies (including “modifications” or “alternatives” where used in lieu of equivalencies) and exemptions that are determined to be applicable:

- (i) Shall clearly demonstrate an equivalent level of safety (i.e., meets or exceeds the required level of protection);
- (ii) Shall be reviewed by the Senior Management Change Control Board prior to initiating an impact assessment and/or adoption; and
- (iii) Shall be approved prior to implementation by the FPD.

The FPD and NPO Manager shall resolve any conflicts between UPF Design Code of Record document(s) within his authority, and provide formal Technical Direction to the Contractor, in accordance with this Contract. Where a change to the UPF Design Code of Record document(s) is determined to not be of benefit to the UPF Project in terms of cost or safety, and the FPD does not have the direct authority to approve the equivalency and/or exemption, the FPD will follow the provisions for relief as specified in DOE O 251.1C, *Departmental Directives Program* and DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*. Any formal concurrence and approvals from the Central Technical Authority (CTA), Chief of Nuclear Safety (CNS), or Chief of Defense Nuclear Safety (CDNS) shall be clearly captured in the supporting documentation reviewed by the Senior Management Change Control Board and incorporated into the UPF Design Code of Record after FPD approval, as applicable.

6.0 FUNCTIONAL ORGANIZATION

While the UPF project will be organized in a traditional functional organization approach, an integrated team culture is expected and required. The purpose of this integrated execution approach is to improve safety, quality, inter-discipline communication and efficiency, foster synergy, increase productivity, improve decision making ownership and accountability, and focus on completing the work scope. Typical areas where the integrated team concept is employed are:

- (i) During the design phase with meaningful design and constructability reviews;
- (ii) Through potential material/equipment vendor consolidation;
- (iii) In engineering, procurement, and construction sequencing and integration; and
- (iv) Including interfaces, support, and services required from other organizations across Y-12. For example, Design Authority, Procurement, Operations, Security, Nuclear Safety, Facility Maintenance, Emergency Management, etc.

7.0 GOALS AND OBJECTIVES

The benefits of executing the UPF project include ensuring reliable, long-term, consolidated EU processing capability for the NSE through modern technologies and facilities, an improved

security posture, and an improved health and safety environment for workers. The goals and objectives of the UPF project are to:

- (i) Improve the security posture;
- (ii) Replace end-of-life facilities and ensure a reliable EU processing capability to meet the mission of NNSA;
- (iii) Improve worker protection with an emphasis on incorporating engineered controls; and
- (iv) Comply with modern codes, standards, and Environmental Safety and Health (ES&H) practices.

8.0 PROJECT DESCRIPTION

The Contractor shall be responsible for performance of all UPF project activities including the following:

- (i) Designing the facility for a 50-year life cycle.
- (ii) Completing a detailed cost estimate and schedule to establish a baseline for scope associated with long-lead procurements and site preparations;
- (iii) Obtaining approval of the full project performance baseline;
- (iv) Constructing the facilities for EU processing capabilities;
- (v) Constructing adjacent support and administrative buildings;
- (vi) Procuring and installing electrical components, heating, ventilation and air conditioning equipment, communications, fire system monitoring, diesel generators, and fire water storage and distribution;
- (vii) Procuring and installing process services equipment for delivery of industrial gases, chemicals, cooling water, etc.;
- (viii) Constructing/installing electrical substation;
- (ix) Installing security systems;
- (x) Installing information technology systems;
- (xi) Completing Perimeter Intrusion Detection and Alarm System (PIDAS) and portal work;
- (xii) Installing long-lead items as received to support the construction schedule;
- (xiii) Procuring the balance of process equipment and install the remaining capabilities for full functionality of UPF;

- (xiv) Constructing the Highly Enriched Uranium Materials Facility (HEUMF) Connector;
- (xv) Completing final site work; and
- (xvi) Pre-operational testing.

Designing engineered controls into the facility equipment and processes will reduce or eliminate the numerous administrative controls relied on today. Consideration of long-term maintenance and reliability is an important aspect of facility and equipment design and selection to ensure a reliable, cost-efficient UPF while providing a safe workplace. Equipment shall be selected with appropriate assessment of life cycle cost factors. Automation and/or remote operation shall be considered where hazardous conditions, human factors, and/or efficiency of operations warrant.

The core EU processing capabilities that will be transitioned from the aging Y-12 infrastructure to the new UPF shall be defined in the NNSA issued PRD and approved SRD. These capabilities are expected to include, but are not limited to:

- (i) Casting;
- (ii) Special Oxide Processing;
- (iii) Salvage Processing (e.g. chemical recovery), including conversion of scrap and salvage EU to safe forms for disposition; and
- (iv) Material Accountability.

9.0 PROJECT GOALS AND MILESTONES

Project management of UPF includes: (1) Title I – Preliminary/Conceptual Design including Pre-Design, Schematic Design and Design Development; (2) Title II – Construction Documents including construction drawings, specifications, and cost estimate; (3) Title III – Construction Management including submittal review and inspection; and (4) Services for test and check out, integration with ongoing operations, and transition to operations, which shall be performed in accordance with the UPF Project Management Plan (Section J, Appendix G). The project management objectives provided in Section J, Appendix A, Chapter II, 1.1.3(iii), paragraphs (A) through (D) applies to the UPF project as well as the following:

- (i) Executing the project consistent with a comprehensive plan and the UPF Program Requirement Document for managing EU production capabilities at Y-12 enabling NNSA to meet its mission;
- (ii) Completing design and construction of the UPF in accordance with the current design information and the approved design for the final update of the UPF Project Management Plan, within the approved total project cost range and the funding profile;
- (iii) Installation and preoperational startup of the EU process capabilities in the UPF buildings;
- (iv) Managing under project management best business practices to include, but not limited to configuration control such that changes in the scope, cost, and schedule basis are documented;
- (v) Regular updates of estimates at completion shall be provided to NNSA;

- (vi) Documenting project management requirements in accordance with DOE O 413.3B entitled “Program and Project Management for the Acquisition of Capital Assets”;
- (vii) The Contractor shall provide input in the formulation of a project fee plan, as prescribed in Section B, B-8, UPF Fee Plan for CLIN 0002 scope of work;
- (viii) The Contractor shall establish performance metrics consistent with Contract at Section J, Appendix B-2, UPF Fee Plan, in a way that quickly and accurately provides NNSA and Contractor management an overall assessment of the “health of the project”; and
- (ix) Once established, the fee plan process and metrics shall become part of the Contractor’s Contractor Assurance System, which shall allow NNSA with transparency to information in order to aid in the timely identification and understanding of significant performance issues.

10.0 COST REQUIREMENTS

Manage the UPF Project, as a severable cost center within the SUBCLIN structure defined under Section B CLIN 0002 of the Contract. This shall include all services (provided by M&O organizations under CLIN 0001) and subcontracts that support CLIN 0002, which shall be clearly defined by the Contractor (e.g. Statement of Work, Cost, and Roles and Responsibilities, etc.).

11.0 PROJECT DELIVERABLES

[Note: To be inserted by the Contracting Officer after NNSA revises PRD.]