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National Nuclear Security Administration

Consolidated Nuclear Security, LLC

Performance Evaluation Report

Contract No. DE-NA0001942

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Y-12 Field Office

Evaluation Period:

October 1, 2024, through September 30,  
2025

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December 12, 2025

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## Executive Summary

### CLIN 0001K – Management and Operation of Y-12

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration's (NNSA) assessment of the performing entity, Consolidated Nuclear Security, LLC's (CNS), performance of the contract requirements for the period from October 1, 2024, through September 30, 2025, as evaluated against the Goals defined in the Performance Evaluation and Measurement Plan (PEMP).

Pursuant to the terms and conditions of the Contract, the PEMP sets forth the criteria by which NNSA evaluates CNS's performance, as required by Federal Acquisition Regulation (FAR) Part 16.4, which outlines expectations for administering award-fee type incentive contracts. This is the type of contract in place between NNSA and its management and operating partners. A key requirement of FAR Part 16 is to establish a plan that identifies award-fee evaluation criteria and "how they are linked to acquisition objectives which shall be defined in terms of contract cost, schedule, and technical performance."

In accordance with the regulation, the PER assesses CNS's performance against the PEMP and provides the basis for determining the amount of award fee earned by CNS. NNSA considered performance information obtained from NNSA Program and Functional Offices, both at Headquarters and in the field, and from the Contractor Assurance System (CAS). This report provides performance feedback, highlighting key accomplishments and issues that need attention.

CNS earned an overall rating of Excellent and 92 percent of the award fee during this performance period. CNS earned Excellent ratings for Goals 1, 2, 3, 6, and 7 and Very Good ratings for Goals 4 and 5. Specific observations for each Goal are discussed in the following pages.

Despite significant technical and infrastructure-related challenges, CNS continued to provide essential support for the nation's nuclear deterrent. CNS worked collaboratively across the nuclear security enterprise (NSE) to meet or exceed all stockpile sustainment, dismantlement, and modernization deliverables. Accomplishments included completion of the B61-12 Last Production Unit (LPU) and technical leadership in support of the Conceptual Design Review for the W88 Alteration (ALT) 376. CNS demonstrated diligence and dedication, consistent with NNSA priorities to accelerate mission delivery, with the early completion of the First Production Units (FPUs) for the B61-13 canned subassembly (CSA), the W80-4 cased canned subassembly (CCSA), while also executing an accelerated product realization process to accomplish CSAsim FPU for the W87-0 Joint Test Assembly (JTA). Depleted Uranium Modernization, Lithium Modernization, and Special Materials programs met or exceeded all Level 2 milestones. Despite technical and infrastructure issues with Building 9204-02, CNS achieved lithium production milestones, was responsive to NNSA requests for infrastructure risk mitigation options, and completed repairs needed to resume metal production capabilities ahead of schedule and under budget. Of note, CNS, after a decade of successful deactivation and disposition work, downgraded Building 9206 from a nuclear facility to a below Hazard Category 3 facility, which not only substantially reduced the Y-12 National Security Complex's (Y-12) nuclear facility footprint and corresponding fissile material hazards but established a model to follow for future nuclear facility dispositions.

Global nuclear security support continued in securing nuclear and radioactive materials worldwide; reducing global nuclear security threats through innovation; and advancing United States' nuclear nonproliferation, counterproliferation, counterterrorism, and incident response capabilities and objectives. CNS performed exceptionally, not only exceeding most global security deliverables, but doing so ahead of schedule. Notable examples include deliverables related to Highly Enriched Uranium (HEU) to High Assay Low Enriched Uranium (HALEU) downblending, HEU and HALEU material returns, HALEU scrap recovery, and associated shipments.

CNS advanced national security missions through innovation, meeting Plant-Directed Research and Development (PDRD) project objectives. Of note, CNS provided the final four parts for the White Sands Missile Range (WSMR) Fast Burst Reactor (FBR) Upgrade Project. Naval Reactors deliverables were completed ahead of schedule, and CNS exceeded High Flux Isotope Reactor oxide production deliverables.

In general, mission enabling areas met or exceeded expectations, with CNS successfully reversing several negative mid-year performance trends. Worker Safety and Health (WS&H) program performance measures met or exceeded targets, and the Radiation Protection Program, consistent with recent year performance, has maintained individual dose rates well below historical averages despite an increasing workload. CNS continues to encounter challenges addressing longstanding issues with the management and control of chemicals in the development facility. These issues required leadership attention as they pose waste management and worker safety concerns. The backlog of fire protection compensatory measures is unacceptably high, negatively impacting Fire Protection Program effectiveness. CNS nuclear safety basis performance successfully enabled the mission, with CNS making notable improvements in the utilization of the Potential Inadequacy in the Documented Safety Analysis (PISA) process and implementing expedited nuclear safety change control to streamline select safety basis packages. The Nuclear Criticality Safety (NCS) program met expectations. Notably, CNS provided a strong response to NNSA feedback on weaknesses in the use of non-destructive assay analysis of fissile material. CNS NCS self-assessments require additional leadership attention as they currently lack the depth necessary to determine program effectiveness. CNS delivered effective, efficient, and responsive Safeguards and Security (S&S) performance, operating under the Fiscal Year (FY) 2025 Defense Nuclear Security Budget targets while maintaining high system effectiveness. Other noteworthy S&S accomplishments include critical support for a heavy onsite project workload and effective responses to multiple adverse weather events and unauthorized entries to Y-12. The quality of authorization packages for new information systems continues to be a concern. CNS is generally delivering efficient, effective, and transparent financial management systems, responding well to NNSA mid-year feedback on accounting weaknesses. Regarding business operations, NNSA remains concerned with CNS procurement operations after identifying critical errors with a recent consent package.

CNS is managing the infrastructure lifecycle process to meet national security challenges. Project performance improvement actions are beginning to demonstrate results with improvements observed across all portfolios as evidence by favorable performance to baseline and the volume of completed mission-enabling beneficial occupancies. Both the Calciner and Electrorefining (ER) projects missed Level 2 milestones for completion of critical program activities, but neither project's Critical Decision (CD)-4 date was impacted. The ER project achieved CD-4, and CNS developed an adequate Corrective Action Plan (CAP) in response to NNSA feedback regarding the premature declaration of readiness for the contractor readiness assessment. The West End Protected Area Project (WEPAR) achieved beneficial occupancy, reducing the Protected Area by about 50 percent, but CNS deficiencies in cost estimation and project management led to cost exceedances that required Federal descoping of the project. The maintenance and utilities workforce effectively enabled mission success in demanding environments, such as unplanned interruptions to utilities that support nuclear safety systems. Attention is needed to address fundamental weaknesses in measuring maintenance performance, controlling maintenance costs, and persistent inefficiencies in the planning, scheduling, prioritization, and effective coordination of maintenance, which is contributing to a rising maintenance backlog.

CNS leadership promoted enterprise collaboration, advanced safety improvement initiatives, and enabled mission success. CNS continues to be a leader in enterprise collaborations, as demonstrated through smart factory and digital transformation initiatives. Actions to drive CAS and disciplined operations improvements have demonstrated results, with sufficient improvement in the line organization's performance in setting and reinforcing disciplined operations standards to support closure of a longstanding management concern. CAS effectiveness is currently limited by weaknesses

in issues management and conduct of operations performance in the development organization remains a concern.

CNS successfully accelerated site separation activities and worked closely with PanTeXas Deterrence, LLC (PXD), descopeing certain activities, allowing the Pantex Plant (Pantex) and Y-12 to be managed and operated autonomously 12 months ahead of the original schedule and meeting NNSA's stretch goal of September 30, 2025.

### **CLIN 0002 – Uranium Processing Facility Project Management**

This PER also provides NNSA's evaluation of CNS's performance against the criteria established in the FY 2025 Uranium Processing Facility Project (UPF) fee plan. Pursuant to the terms and conditions of the contract, the fee plan set forth criteria by which NNSA evaluated CNS's performance and upon which NNSA determined the amount of award and incentive fee earned. The UPF fee plan contained two components: (1) the FY 2025 award fee plan (AFP) and (2) the FY 2025 schedule objective fee annex. The total available fee for FY 2025 was \$21 million (M), of which \$6.72M was award fee (subjective fee) as defined in the AFP, and \$14.28M was schedule objective fee as defined in the fee annex.

Overall, CNS exceeded many of the performance criteria established in the AFP and earned 100 percent of the available schedule objective fee. During the evaluation period, accomplishments greatly outweighed issues and no significant issues in performance existed.

CNS significantly improved the transparency and quality of its estimate at completion, leading to a more rapid NNSA evaluation and issue identification. The project leadership and commissioning team were reorganized into a Project Transition Organization, which enhanced timely and focused actions on future risks. A notable achievement was the development of a graded approach to affirmations for the commissioning phase, reducing engineering-related affirmations from 3,300 to 1,800, thereby improving efficiency and demonstrating readiness. CNS successfully managed to the established baseline throughout the period, a marked improvement from past recurring replanning needs, and advanced the project completion date by six months while operating at a lower cost than forecast. CNS also established a system grooming program and secured service agreements with key suppliers for testing. The primary area identified for improvement was CNS's inconsistent schedule adherence, requiring recurring month-to-month changes not identified at baseline inception.

CNS executed the project in line with the established baseline, achieving a cumulative cost performance index of 1.0. CNS utilized \$60 million less in management reserve than planned and implemented risk mitigation measures, supporting the reduction of \$100M in NNSA required contingency. The project is forecast to achieve its stretch goals within cost thresholds, creating cost float. CNS also successfully closed longstanding earned value management system (EVMS) concerns, maintained control of critical schedule visibility tasks, and collaborated with NNSA to implement a risk-based solution for Project Assessment and Reporting System (PARS) data entry, resulting in a cost avoidance of over \$4 million annually. Other achievements include executing within 2 percent of its spend plan and incorporating schedule trends within 30 days.

CNS achieved a cumulative schedule performance index of 0.98. The focus on critical path activities resulted in no use of schedule reserve, accelerated the deterministic project completion date by six months, and reduced NNSA's forecast schedule contingency need by five months. CNS completed nearly 25 percent more system turnovers from construction to testing and 90 percent more tests than planned. Of 19 critical milestones, 16 are forecast earlier than baselined. CNS also completed detailed planning for the entire commissioning phase years ahead of schedule, enabling earlier identification of issues and improved risk evaluation. Spares procurement is progressing well, with 75 percent on hand. Concerns include the addition of 913 forecast-only activities and ongoing challenges with subcontractor schedule integration.

CNS improved the quality of deliverables and addressed NNSA concerns regarding the aggressive commissioning phase. Consistent Title III Engineering support was provided, with all nonconformance reports resolved prior to system turnover without delays. Significant progress was made in closing dated NNSA management concerns, with an average age of 65 days for open corrective reports. However, safety issues trended upwards towards the end of the evaluation period and the Record of Decision and associated milestone dates for activation of permanent systems required updating due to a general lack of prioritization.

## CLIN 0001K – Management and Operation of Y-12 Performance Evaluation

### Goal 1: Mission Delivery: Nuclear Weapons

Amount of At-Risk Fee Allocation: \$21,140,390

#### Goal 1 Summary

CNS earned a rating of Excellent, and 95 percent of the award fee allocated to this Goal. CNS exceeded almost all of the Objectives and Key Outcomes and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, accomplishments significantly outweighed issues, and no significant issues in performance existed.

#### Objective 1.1

CNS significantly advanced this objective by fostering collaborative efforts across the NSE, contributing knowledge, personnel, and capabilities to accelerate technological and manufacturing readiness levels. CNS effectively supported the Weapon Technology Manufacturing and Maturation (WTMM) program and the Engineering and Integrated Assessments (E&IA) program, executing cutting-edge experiments and developing new components and materials. CNS engaged with the NSE to develop new and innovative materials, most notably with Lawrence Livermore National Laboratory (LLNL) on a novel alloy for potential use as an alternative material. CNS supported multiple Pre-Phase 1 studies, fabricated components for a prototype build, and collaborated across the complex. CNS worked to develop processes, material fabrication techniques, mature technology readiness levels, and accelerated technology deployment.

#### Objective 1.2

CNS successfully executed activities in production sustainment, integration, Nuclear Enterprise Assurance (NEA), and Weapon Quality Assurance (WQA) with no significant issues in performance. However, gas sampling analyses for surveillance work scope were impacted with a prolonged period of trial and error, resulting in unsuccessful restoration of the full suite of required capabilities. While a gas mass spectrometer was qualified for some weapon system, gas chromatography efforts are yet to see full resolution, with CNS continuing to rely on capabilities at Pantex.

CNS successfully reviewed all required quality records for acceptance of weapon products, which ensured high quality products met production goals.

CNS supported growing NEA scope by completing risk discovery and mitigation actions such as Operational Technology Assessments (OTAs) and Enterprise risk integration. CNS acted promptly to address complex challenges in advancing NEA Artificial Intelligence (AI) project transition, exceeding all FY 2025 milestones for Site Execution, OTAs, Risk Related Tools/Aids, and Gratuitous Information, serving as a successful program model across the NSE. Site Execution planning mapped to Strategic Planning, such as an NNSA program office's Future State and Road mapping, which addressed gaps identified by CNS, were successfully documented. CNS developed a formal NEA competency process for integration into technical qualification cards, successfully worked with the W87-1 Product Realization Team (PRT) and other areas in the utilization of risk related tools. This identified gaps in digital assurance and software quality assurance, which were addressed.

CNS executed Production Operations under a constrained budgetary environment and continued to support availability of vital production equipment. However, this challenge highlighted the need to focus on integration of stakeholders' needs with planning and controlling costs for maintenance execution.

### Objective 1.3

CNS met all NNSA-mandated stockpile sustainment deliverables in FY 2025, adjusted for NNSA-directed changes, having completed 100 percent of Base Surveillance (all programs). Surveillance scope included new nondestructive testing and reacceptance for W76 canned subassemblies (CSAs). An additional W88 Disassembly and Inspection (D&I) surveillance activity was completed in FY 2025 which will provide useful information for the W88 ALT 376.

CNS completed 102 percent of Weapon Dismantlement and Disposition (WDD) deliverables despite operating under a limited budgetary environment in the early portion of FY 2025. The W84 first dismantlement unit was completed in FY 2025 which required significant efforts in process development to support future dismantlement work.

It is noted that while all scope was recovered, W76 stockpile sustainment work was delayed due to unplanned depletion of available funds in the early portion of FY 2025. This caused a delay to a W76 deliverable due in January, which was subsequently completed in February. At least two other areas of work (W87-0 and WDD) were slowed as a result of similar issues but did not result in incomplete deliverables. CNS established more rigorous financial processes to preclude recurrence.

CNS exceeded expectations in supporting the new W88 ALT 376 by providing technical leadership during its Conceptual Design Review (CDR) and yielding substantial progress with disassembly process method development. CNS used a tailored 6.X approach and completed the CSA Final Design Review (FDR) in FY 2025.

In support of the W87-0, CNS completed the FPU for CSAsim on an accelerated timeline by accepting a Process Prove-In Unit as FPU.

### Objective 1.4

CNS demonstrated diligence and dedication by rapidly responding to mission needs and working ahead of schedule to enable B61-13 FPU. CNS was ahead of schedule on the first CCSA Qualification Build in support of W80-4 and was able to recover schedule from a contamination issue and test equipment delays, enabling the Porcula FPU schedule to be maintained. CNS provided support for the W88 ALT 370 mission delivery by completing midcap rework and achieving LPU. CNS collaborated effectively with LLNL DA to adjust challenging production specifications and reduce risk to W87-1. CNS identified threats and opportunities with respect to infrastructure investments to support the W93 long term and completed the first CSA prototype in Phase 2A to improve producibility. However, multiple equipment issues limited material supply resulting in triage of supply to meet minimum modernization needs.

CNS met its NNSA-approved baseline modernization scope for the B61-12 Life Extension Program (LEP) and accomplished the acceptance of the CSA LPU in FY 2025. CNS completed the B61-13 CSA FPU 3 months ahead of its baseline schedule despite an early FY 2025 technical setback. This was accomplished through coordination with Los Alamos National Laboratory (LANL) and placed NNSA in a strong position to deliver the B61-13 system FPU.

Scope	Year-to-Date Baseline Completion
B61-12 LEP	100%
B61-13 LEP	104%

CNS' W80-4 LEP scope included multiple components that progressed forward through product realization, culminating in acceptance of the CCSA FPU in FY 2025. The CCSA FPU was completed ahead of the planned production baseline. There were multiple examples in this evaluation period

where CNS overcame problems with material availability, challenges with specifications, and system testing.

CNS progressed with the W87-1 despite experiencing technical issues both inside and outside of its control. Due to a reduction in the W87-1 spending profile, CNS implemented a strategy to protect key program milestones without major impacts to the CNS workforce. While delays were experienced with production of new capabilities and material availability, CNS recovered the schedule to meet their Level 2 milestone deliverables. However, a portion of pre-production work is taking much longer than scheduled due to production issues within CNS' control. CNS shifted deliverables and delayed the more difficult portion of the scope of work as production designs were finalized.

CNS continued to support the W88 ALT 370 program, which remains on-schedule, through surveillance-related activities as well as reworked components to be returned to the stockpile.

Activity with the W93 increased throughout FY 2025. NNSA observed CNS' contributions to the program that supported the system design, assessed readiness for components, identified and addressed risks, and contributed to the development of the weapon design. Notably, CNS completed prototype builds which have contributed to validating the design. CNS provided timely data for program's Weapon Design and Cost Report (WDCR), which is on track, and supported cost-related deliverables. Pre-production risks were identified by CNS, and a solution was proposed to NNSA with respect to program impact both to the W93 as well as other programs.

CNS supported the United Kingdom (UK) by providing deliverables as required by the Mutual Defense Agreement (MDA). CNS hosted the Program Working Group (PWG) with Atomic Weapons Establishment (AWE) and Ministry of Defense (MOD) technical staff for information exchange. In addition, CNS completed the first ever year-long Production Agency UK assignee at Y-12.

### **Objective 1.5**

CNS completed all Enriched Uranium Modernization (EUM) Program Level 2 milestones for the Technology Integration, 9212 Transition Strategy, Central Scrap Management Office, Capability Modernization, Uranium Processing Facility (UPF) Integration, Material Recycle and Recovery (MRR), Nuclear Materials Management, and Storage subprograms with many milestones being substantially exceeded well ahead of the original schedule.

After a decade of successful deactivation and disposition work, CNS completed waste activities and downgraded Building 9206 from a nuclear facility to a Below Hazard Category 3 facility, two months ahead of schedule. The downgrading of Building 9206 reduced surveillance and maintenance requirements for the facility and established a model to follow for future nuclear facility dispositions.

CNS completed all Assembly, Disassembly, Dismantlement, and Surveillance (ADDS) subprogram deliverables on time. CNS made progress in disposing of difficult materials and partial assemblies from Building 9204-2E.

The CNS Depleted Uranium Modernization (DUM) team met or exceeded all Level 2 milestones. The DUM team matured future production technologies by producing hardware castings for the Design Agencies with the Direct Cast furnace. DUM completed alloying melts with the Electron Beam Cold Hearth Melt (EBCHM) furnace before shifting to complete recycle melts. The Vacuum Arc Remelt (VAR) furnace increased production to provide data for possible future production rates. CNS completed the off-site supplemental production Environmental Assessment, as well as completed fabrication of a new VAR electrode weld box, and began modernizing the 4N furnace to allow for future depleted uranium demand signals. CNS pivoted by revising the rolling mill strategy, utilizing a commercial vendor to save both outage time and money until a new rolling capability is put in place. The DUM team also supported program office initiatives, such as the Radiation Case Steering Committee, High Purity Depleted Uranium (HPDU) supply contract, Depleted Uranium Working Group (DUWG), and the Agile Radiation Case Capability (ARCC) planning.

CNS met all FY 2025 lithium production milestones despite technical and infrastructure issues associated with Building 9204-02 and was responsive to NNSA requests for risk mitigation options. CNS completed floor shoring and liner repairs ahead of schedule approximately one month early and under budget by approximately \$2 million (M) to restart lithium metal production. CNS expanded technology maturation efforts through design agency (DA) collaboration on prototyping manufacturing processes and by supporting technology efforts with Argonne National Laboratory and vendors through the Critical Suppliers Program.

CNS advanced Special Material related technologies, developed manufacturing strategies, and provided leadership to the rest of the Enterprise. CNS completed machining of all Technology Readiness Level (TRL)-7 test components after incorporating flash fire mitigation actions and reduced the time associated with machining by several days. These test components support TRL-7 assessment in FY 2026. CNS also completed factory acceptance testing and Technology Demonstration Facility modifications for the new 800-ton press.

Downblending Offering for Tritium (DBOT) exceeded NNSA requirements with a total of 163 percent material shipped ahead of schedule. CNS identified material to NNSA for inclusion in the inter-entity agreement for a continuation of shipments into FY 2027 and assisted a third-party fuel fabricator in the mitigation of a high U-236 issue in the remaining DBOT HEU to be downblended.

Recurring fire events in Development resulted in a re-baseline of the Tritium Producing Burnable Absorber Rod deliverables.

### **Objective 1.6**

CNS demonstrated technical leadership, by establishing a Master Integrated Project Team and pursuing actions specific to Digital Engineering. This included advancing enterprise Product Definition Data Management (ePDM) for sharing product definition data between Y-12 and LANL, which will streamline the product realization process. Additionally, CNS was recognized as a leader across the enterprise for their efforts related to AI, Extended Reality, and Digital Thread. CNS met all Level 2 milestones while also enabling the integration of the Product Realization Integrated Digital Enterprise (PRIDE), the Digital Transformation Senior Steering Group (DTSSG), and the Digital Thread Action Group (DTAG).

### **Key Outcome 1.1**

CNS met expectations by producing the eighth secondary ingot on September 10, 2025.

## **Goal 2: Mission Delivery: Global Nuclear Security**

Amount of At-Risk Fee Allocation: \$6,040,111

### **Goal 2 Summary**

CNS earned a rating of Excellent, and 97 percent of the award fee allocated to this Goal. CNS exceeded almost all Objectives and Key Outcomes and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, accomplishments significantly outweighed issues, and no significant issues in performance existed.

### **Objective 2.1**

CNS provided expertise to a range of nuclear and radiological security and counter nuclear smuggling activities and trainings in support of the NNSA Office of Global Material Security. Of note, CNS provided expertise in response force trainings to partners building capabilities in nuclear security and subject matter expert and program management support in counter nuclear smuggling. CNS executed

the removal of multiple radioactive sources in Brazil and worked through communication and funding barriers concurrently with the construction of the Oak Ridge Institute for Global Nuclear Security facility to allow for extended capabilities.

### **Objective 2.2**

CNS provided support to advance U.S. nuclear nonproliferation and nuclear security capabilities. Specifically, CNS supported and/or led multiple venture-level projects and continued to advance their capabilities through the expansion of the Nuclear Detection and Sensor Testing Center Library of Test Objects (NDSTC). NDSTC supported neutron measurement campaigns that advanced nuclear detection technologies and operational readiness. CNS executed low-risk and long-lead equipment procurements, accelerated the design of custom equipment, proactively leveraged knowledge preservation management tools, and delivered documents supporting the development of the Uranium Production and Weaponization Testbed at an offsite facility.

### **Objective 2.3**

CNS continued to manage and minimize excess weapons-useable nuclear materials and provide nuclear materials for peaceful uses.

CNS surpassed NNSA expectations supporting international reactor conversions, particularly in Japan. CNS was critical to the successful September 2025 conversion of the Kyoto University Critical Assembly (KUCA) from HEU to HALEU fuel by conducting the fuel transportation from France to Japan, repackaging and unloading the fuel. CNS discarded 230 percent of the low equity items required and shipped 122 percent of the HALEU scrap required. CNS provided support to NNSA in its responses to Executive Order-related taskings and the activities of the Enriched Uranium Working Group.

CNS supported the execution of a removal of HEU and HALEU from France, an unirradiated HEU shipment from Canada, and supported planning for the FY 2026 removals of HALEU from Japan and HEU from Canada. CNS supported the Mobile Packaging Program and the Mobile Uranium Facility during the planning and execution of an exercise held in Australia.

CNS completed the 5-year recertification of the Model MD-2 package 12 months ahead of schedule.

### **Objective 2.4**

CNS provided substantial technical support to multiple programs within the Office of Nonproliferation and Arms Control. CNS facilitated training and strategic planning meetings for the Office of International Nuclear Safeguards. CNS developed a Detector Dashboard for Continuous Process Monitoring of Uranium Holdup and provided substantial support to the Wide Area Environmental Sampling project. CNS hosted five European Atomic Energy Community delegation members at Y-12 for a successful reciprocal Bilateral Physical Protection Assessment Program visit. CNS provided outstanding leadership to the Uranium Verification Team (UVT) and participated in multiple Nuclear Materials Verification training events for both the UVT and Plutonium Verification Team. CNS also provided exceptional support for the Next Generation Verification Equipment HM-5+ project and the Containment and Surveillance project. CNS provided essential site perspective and expertise to multiple laboratory efforts to develop feasible and robust monitoring and verification capabilities.

### **Objective 2.5**

CNS maintained critical operational readiness to sustain capability assurance and the ability to respond to national security incidents. CNS Nuclear Emergency Support Team assets participated in multiple National Security Special Events and provided outstanding operational support. CNS also provided significant support in Radiological Assistance Program Exercises and the Nuclear Forensics Material

Analysis Program, including completion of all National Nuclear Materials Archive collections and shipments.

### **Key Outcome 2.1**

CNS exceeded the HEU downblending to HALEU production target two months ahead of schedule. CNS sustained a quantity of HALEU on-hand that equals or exceeds the demand for FY 2025.

## **Goal 3: Mission Innovation: Advancing Science and Technology**

Amount of At-Risk Fee Allocation: \$3,020,055

### **Goal 3 Summary**

CNS earned a rating of Excellent, and 97 percent of the award fee allocated to this Goal. CNS exceeded almost all Objectives and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, accomplishments significantly outweighed issues, and no significant issues in performance existed.

#### **Objective 3.1**

CNS successfully developed and executed a \$41.4M PDRD portfolio that consisted of 65 projects with strategic investments to improve technologies primarily related uranium production and lithium production as well as additive manufacturing as evidenced by the progress made on various projects, including Low-temperature, Chlorine-free Lithium Manufacturing and Electron Beam Additive Manufacturing.

#### **Objective 3.2**

CNS furthered technologies to improve production operations by completing the fourth Phase B alloy melt under the accelerated test plan for Electron Beam Cold Hearth Melting and by fabricating a new reaction cell for a low-temperature, chlorine-free lithium manufacturing process that will provide a safer method for yielding lithium.

#### **Objective 3.3**

CNS executed transformative and innovative research that will support continued improvement of manufacturing, technologies, operations, and nuclear security programs. CNS completed five castings using VIM-VAR-VAR feedstock for testing at LLNL, deployed a low-cost mobile cart to detect cell phones and Bluetooth devices in limited areas to reduce incidents of security concern, and produced DU wire for the Electron Beam Additive Manufacturing project.

#### **Objective 3.4**

CNS completed start-up of the MELD additive manufacturing machine and also completed the first build on time. CNS installed new equipment such as an Environmental Scanning Electron Microscope and a Nuclear Magnetic Resonance Spectrometer in Development and Analytical Chemistry to improve capabilities and operations in those facilities.

#### **Objective 3.5**

CNS continued to expand partnerships, university outreach, and technology transfer activities. CNS worked with an accredited law school to support commercialization efforts to improve safety, quality, and costs related to medical isotopes. CNS executed two commercial licenses—one for beryllium detection wipes and another for the Modular Ink Lubricant Rebar Barrier. CNS received a patent for technology that produces corrosion-resistant aluminum coatings. CNS maintained compliance with

public access requirements to Scientific and Technical Information and submitted all FY 2025 accepted manuscripts within 90 days of publication.

### **Objective 3.6**

CNS continued to provide substantial support to other Department of Energy (DOE) sites and federal agencies. Naval Reactors castings and shipments were completed ahead of schedule. CNS exceeded the High Flux Isotope Reactor (HFIR) oxide production deliverable and completed computed tomography scans of HFIR fuel elements on schedule. CNS completed a shipment of HALEU material to Idaho National Laboratory within budget and ahead of schedule. CNS completed two shipments of HALEU to foreign research reactor customers on schedule. CNS delivered the final five parts for the White Sands Missile Range Fast Burst Reactor that were needed to complete this decade-long project and replace all the parts of the reactor core for the first time in over 50 years. CNS produced research and work products that proved to be valuable for the intelligence community. CNS provided substantial support to the MDA, including Procurement for Ministry of Defense execution.

## **Goal 4: Mission Enablement**

Amount of At-Risk Fee Allocation: \$12,080,223

### **Goal 4 Summary**

CNS earned a rating of Very Good, and 86 percent of the award fee allocated to this Goal. CNS exceeded many Objectives and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year accomplishments greatly outweighed issues, and no significant issues in performance existed.

### **Objective 4.1**

The CNS Worker Safety and Health Program consistently met or exceeded safety targets, achieving significant milestones such as working 9.9 million hours without a lost time injury. CNS initiated and promoted a revised understanding of Depleted Uranium (DU) Toxicity resulting in a revised application of International Building Code Standards resulting in significantly reduced construction costs for some DU facilities. CNS effectively implemented its Radiological Controls program, maintaining personnel contamination event rates in line with 5-year historical averages and individual radiation doses at ALARA levels despite an increasing workload. CNS initiated innovative methods for waste management by using local x-ray inspection and rail for shipping. The efforts enabled early identification of prohibited items, shipment of approximately three times more waste offsite than generated that included shipment of 2596 containers of backlog waste offsite. CNS Quality Assurance (QA) directly influenced positive Weapons QA policy improvements and aided on time delivery of three FPUs. Environmental programs were largely effective in sustaining compliance as evidenced by the limited number of issues identified by external assessments and oversight activities. The Development Facilities chemical inventory control and management is inadequate, presenting both worker safety and hazardous waste management problems, and must be addressed. Additionally, NNSA remains very concerned about the high number (65) of fire protection compensatory measures and minimal progress (reduced by twelve in total since the FY 2024 Performance Evaluation Report) addressing them due to the compounding negative impact on fire safety.

CNS's overall performance related to nuclear safety basis activities met expectations and successfully enabled the mission. CNS improved the use of the Potential Inadequacy of the documented Safety Analysis (PISA) process over the past year, and has implemented various improvement efforts, including Expedited Nuclear Safety Change Control, streamlined negative PISA documentation by combining the Unreviewed Safety Question Determination/Evaluation of the Safety of the Situation,

and monthly strategic meetings with NNSA. CNS accomplished a significant milestone by downgrading Building 9206 from a Category 2 Nuclear Facility to Below Hazard Category 3 facility categorization, which reduced the Y-12 nuclear footprint by 67,000 square feet and reduced fissile material risk from a 1944 legacy facility. CNS achieved federal approval for Y-12's first DOE-STD-3009-2014 compliant DSA (i.e. Low Equity Vehicle) and removed all uranium-molybdenum powder from 9720-05 which resulted in cancellation of a long-standing safety basis supplement to ultimately reduce nuclear safety risk. CNS's NCS program continued to meet expectations. CNS enacted a strong response to address weaknesses surrounding non-destructive analysis of fissile material credited for criticality safety. However, NNSA found CNS's self-assessment of the NCS program lacked the depth necessary to determine program effectiveness. Efforts to address proactive identification of NCS infractions are ongoing; NNSA is not yet able to assess effectiveness of these actions. Generally, CNS has maintained credited safety systems to ensure their proper performance and adequate protection of the workers and public.

#### **Objective 4.2**

CNS delivered effective, efficient, and responsive safeguards and security, including assigned enterprise initiatives by operating under the FY 2025 Defense Nuclear Security Budget target. Additionally, CNS facilitated the first tabletop exercise designed to test objectives related to Protective Force command and control and their ability to respond per the Security Incident Response Plan to a Design Basis Threat scenario. CNS developed and delivered the first set of 3D-printed Nuclear Materials Control and Accountability performance testing props to another NNSA site, enhancing effectiveness and introducing real-world scenarios. CNS completed the Mission Critical Security Upgrades Project and achieved interim beneficial occupancy from WEPAR, which reduced the Protected Area by approximately 50 percent and transitioned operations to the new Post 12. CNS made concerted efforts in meeting programmatic security initiatives and reducing risks while executing efficiencies within the Protective Force posture and maintaining high system effectiveness. The DOE Office of Enterprise Assessments partnered with CNS Trusted Agents in the planning and execution of eighteen Limited Notice Performance Tests, resulting in no issues or findings. CNS continued to manage aging facility issues at the Central Training Facility and Protective Force Headquarters, which have presented quality of life challenges and took action to request funding to modernize the facilities.

#### **Objective 4.3**

CNS delivered efficient, effective, responsible, and transparent financial management operations and systems. CNS responded timely to numerous data calls to identify critical funding needs. A lack of CNS internal controls required NNSA involvement so that work could continue with the W76 and W87 weapons programs during program funding shortfalls. However, CNS promptly addressed the issue and has strengthened processes for timely notifications to preclude recurrence. CNS provided timely data and feedback to the Office of Inspector General in support of their General Audit of Statement of Cost Incurred and Claimed for FY 2016-2018.

#### **Objective 4.4**

CNS effectively managed legal risks and implemented best legal practices by supporting new Administration initiatives, including ensuring compliance with Executive Orders and monitoring ongoing litigation. CNS facilitated the execution of its first royalty-bearing commercial patent license in over 30 years and secured a \$5M franchise tax refund for NNSA. CNS improved the timely delivery of actionable recommendations and analysis for Freedom of Information Act (FOIA) and Privacy Act requests by reducing the FOIA backlog to one and closing 16 FOIA and 154 Privacy Act requests during this period.

## Objective 4.5

CNS progressed toward accomplishing information technology (IT) and cybersecurity initiatives. CNS completed 30 of 33 IT Program Execution Guidance (PEG) Implementation Factors (IF), which included six more than originally expected earlier in the year. Those not met were related to the implementation of Internet Protocol version 6 (IPv6), Energy Hub Access capabilities, and Data Loss Prevention solutions. Key IFs related to AI management and limited NNSA Federated access was accomplished ahead of schedule. CNS continued to develop and implement mission enabling technology solutions, like smart electronic procedures for improving production efficiency. Additional work remains to effectively implement enterprise initiatives related to Endpoint Detection and Response solutions, Enterprise Secure Network Hub, OneNNSAccess, and Zero Trust Architecture. CNS Cybersecurity met PEG expectations by completing effective self-assessments and developing maturity plans for two Focus Areas (FA). The FAs related to the implementation of a Risk Management Framework (RMF) and a mature Vulnerability Management Program were intended to meet PEG expectations over a multiyear effort. CNS progressed in maturing the Cybersecurity Program by meeting Milestone 1 of the Y-12 Authorization and Risk Management Action Plan, defining the structure of the RMF, a critical step for effective risk management on site. CNS also continued to mature cyber operations through the Cyber Threat Integration Team and the Cyber Vulnerability Assessment Team, integrating threat intelligence and technical assessments into operational efforts. However, the integration of cybersecurity into organizational system development continues to be a challenge. CNS developed and implemented an Integrated Risk Assessment to help address this area of concern, but additional efforts will be needed. Furthermore, CNS continues to work on maturing authorization package submissions. However, inconsistent and incomplete submissions have led to inefficient system risk assessments and instances of delayed system availability.

## Objective 4.6

CNS maintained a mature Emergency Management program that consistently demonstrated the ability to respond effectively, evaluate performance, and implement improvements. CNS successfully executed one full-participation exercise, one full scale exercise, five fully staffed performance drills, and responded to three Security Incident Response Team activations. CNS is actively enhancing its Emergency Notification System. Installation of all six outdoor iForce speakers has been completed. CNS is identifying and pursuing corrections in areas where audibility issues continue to persist. While progress is being made, significant collaboration is needed between facility personnel and emergency management to resolve communication gaps across the site. In addition, CNS advanced the use of emerging technologies to significantly reduce personal safety risks in combating emergencies. These tools were utilized during a real-world event to successfully ensure personnel safety.

## Objective 4.7

While managing an annual \$2.67 billion spend under contract, CNS demonstrated varying effectiveness across critical business operations, with concerns arising in both procurement and human resources. CNS submitted a well-developed strategy to NNSA for negotiation of a new contract with the Atomic Trades and Labor Council. However, the market comparison submission for the International Guard Unions of America economic parameters was not well developed and lacked key information initially that NNSA needed to make a decision. CNS recognized the omission and provided additional information. The delayed submission of a business case for the use of CIP targeted adjustment funds was not reasonable and was voluntarily withdrawn by CNS. NNSA remains concerned with the compliance of CNS procurement operations within their approved Procurement Process Description and the contract terms and conditions, noting an observable downward trend in procurement. Deficiencies in procurement directly necessitated acquisition strategy decision changes for the program to ensure mission objectives could still be achieved. A potential Basic Ordering Agreement submitted

for consent was not approved by NNSA due to critical errors such as violations with the contract terms and conditions and a lack of quality control. The CNS Purchasing System was deemed acceptable with conditions by a Procurement Evaluation and Re-engineering Team, due to noted weaknesses that required corrective actions. CNS implemented Corrective Action Plans in several procurement operations in order to strengthen processes and responded proactively to federal feedback. CNS small business achievements met or exceeded five of the six category goals, with the Women-Owned Small Business (WOSB) goal not being achieved. With significant NNSA involvement in procurement and human resources, CNS successfully enabled mission delivery.

## **Goal 5: Construction Projects and Infrastructure**

Amount of At-Risk Fee Allocation: \$9,060,167

### **Goal 5 Summary**

CNS earned a rating of Very Good, and 83 percent of the award fee allocated to this Goal. CNS exceeded many Objectives and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year accomplishments greatly outweighed issues, and no significant issues in performance existed.

#### **Objective 5.1**

CNS completed its 2025 Deep Dive and rapidly implemented changes to the Deep Dive format from site-specific to capability focused, allowing for increased engagement and cooperative planning across the NSE. CNS collaborated with NNSA on the development of the Deep Dive Smart Sheets. CNS was the first site to embrace and pilot the Bernie Artificial Intelligence tool outside of LLNL. CNS showcased the tool at the 2025 Y-12 Deep Dive and later demonstrated the tool for NNSA Senior Leadership.

CNS supported planning for the Agile Radiation Case Capability and the Uranium Production Weaponization Testbed providing site selection analysis and the Binary Demonstration Facility Functional and Operational Requirements. CNS incorporated upgrades to support lithium capabilities in the Oak Ridge Institute for Global Nuclear Security.

CNS participated in the Integrated Infrastructure Planning Sub-team 4 and contributed to the development of the Early-Stage Infrastructure Planning document.

CNS reduced data discrepancies identified by Validation Assessment Process Evaluation Review by at least 70 percent, ensuring that NNSA asset data remained at a high level during pushes for end-of-year data reporting requirements.

The LLNL, Pantex Plant, and CNS BUILDER™ teams conducted a voluntary focused peer review to identify ways to streamline data management and improve infrastructure delivery. CNS proactively requested assistance from LLNL to enhance their infrastructure data to streamline data management and improve infrastructure delivery.

#### **Objective 5.2**

CNS executed 84 percent of small projects within their cost and schedule baselines, improving on performance from past years. Performance within the Recapitalization portfolio improved, with more projects being completed on schedule. Specifically, Building 9423 sort and segregation capabilities scope was executed to support increasing programmatic operations. CNS was able to replan the Special Materials Facility projects to be within the available funding and execution continued to be within the cost and schedule baselines. In addition, the small projects team achieved 34 Beneficial Occupancies versus a goal of completing 29. CNS completed all actions in their Project Performance

Improvement Initiatives, with improvements in project seen across portfolios; as evidenced by favorable performance to baseline and volume of completed mission enabling beneficial occupancies.

CNS' Calciner Project was over cost and behind schedule against the Over Target Baseline/Over Target Schedule. CNS completed energized component testing and progressed on pre-operational testing, but missed the program Level 2 milestone; caused by an installation quality issue. This issue combined with testing and instrumentation and control programming discoveries pushed the critical path by 4 months. However, due to the available contractor schedule margin, CD-4 was not impacted.

The Electrorefining Project achieved CD-4 after CNS received startup authorization. This represented the first federally-authorized nuclear process startup at the Y-12 NSC in over 15 years. The Contractor Readiness Assessment (CRA) was delayed from August 2024 to February 2025 due to equipment maintenance problems and was further delayed by the need to reperform a portion of the CRA scope due to issues encountered during the initial CRA. These delays resulted in CNS missing a Level 2 program milestone which was to complete critical activities relative to the Electrorefining project. CNS developed an adequate Corrective Action Plan in response to NNSA feedback regarding the premature declaration of readiness for the CRA.

CNS supported all Direct Chip Melt work necessary for CD-2/3 approval and supported numerous requests from NNSA on appropriately separating Subproject 1 into three object classes: 1) Major Item of Equipment (MIE) 2) Minor Construction and 3) Repair/Replace. CNS completed two programmatic milestones "Ship Compactor to Glovebox Vendor" 2 weeks ahead of schedule and the "Delivery of the HEPA Filter Housing" 4 months ahead of schedule. Post CD-2/3, CNS submitted a BCP due to rate changes, an impact to the project of approximately \$3.3M. This issue should have been identified during the development of the CD-2/3 estimate. Despite this, CNS completed two long-lead procurements and the design scope for both subprojects ahead of schedule and under budget by \$1.5M and is forecasted to finish within the Contractor Budget Baseline for Subproject 1. CNS completed 100 percent design work for the following: the Furnace, the Recirculation, the Glovebox, and the Utilities on time and under budget for Subproject 2. A Rough Order of Magnitude estimate for Subproject 2 was late even though an extension was given.

CNS LPF unfavorable Main Processing Facility (MPF) design performance resulted in delayed completion of the structural facility design, which was overcome by overall LPF project schedule delays (driven by funding uncertainties). CNS responded to NNSA requests for continued planning scenarios with quality deliverables on schedule. CNS avoided costs by minimizing double handing of suitable soils between the MPF and East End Substation (EES) subprojects and repurposing the temporary electrical power skid from the UPF project for future LPF construction. CNS submitted their basis of estimate for the EES subproject and documents ahead of schedule to support NNSA's review, development, and submission of the CD-2/3 package. CNS supported all requests from NNSA to support the Tennessee Valley Authority's planning and work activities and remained within authorized costs.

The WEPAR project received beneficial occupancy but was forecasted to exceed the total project cost requiring a Federal descoping of the project. The drivers that could not be overcome included CNS not including all support costs during re-baselining, the Communications Reroute Subcontract value and higher than planned support costs during installation and testing. This was a deficiency in CNS's cost estimation and project management, which directly impacted the project's ability to achieve its original objectives and deliverables.

### **Objective 5.3**

CNS's workforce demonstrated the ability to execute work in complex and challenging environments. This was demonstrated by safe and effective recoveries from emergent and impactful site events, such as broken water lines that supply credited fire protection systems in nuclear facilities, sewer system failures impacting the nuclear workforce, and site-wide power outages. CNS's Severe Weather Action

Team and Mission Systems and Integration organization have continued to provide excellent support to ensure security and safe site access to personnel during winter events.

CNS's efforts to fully integrate utilities systems into the site's strategic asset management plan have allowed NNSA to close an FY 2024 Emerging Item of Interest (EII), which identified weaknesses in the management of utility systems and related infrastructure. However, CNS's management of the site's potable water system needs improvement. For example, after CNS unintentionally isolated water to a Hazardous Category 2 Nuclear Facility for approximately 12 minutes while performing valve cycling, it received technical direction from NNSA to develop a plan for repairing known failed valves, implement software to assist with valve management, and re-analyze a decade-old report on whether to credit the potable water system as a safety system.

Recent assessments have found that CNS did not meet several key requirements from DOE Order 433.1B Chg. 1, which represents important and site-wide issues affecting Planning, Scheduling, and Coordination of Maintenance, Seasonal Facility Preservation, Maintenance Procurement, Master Equipment List, and Maintenance History. Corrective actions to address these issues were completed in FY 2025, but tangible evidence of improvement will not be seen until FY 2026.

An FY 2025 assessment, in addition to an analysis of CNS's Mid-Year Performance Self-Assessment, led NNSA to issue a new EII for CNS's Maintenance Performance Measures. This issue highlighted that CNS has not adequately established, measured, trended, or analyzed maintenance performance measures, relying on flawed qualitative analysis that does not sufficiently capture overall maintenance performance. Additionally, CNS has not developed a means of measuring reliable asset performance. Furthermore, substantial shortcomings exist in controlling maintenance cost performance measures, evidenced by frequent and significant variances between planned and actual expenditures. This collective absence of rigorous, data-driven performance management undermines operational effectiveness, impedes continuous improvement, and necessitates a fundamental shift towards a metrics-based approach for identifying and addressing performance gaps. CNS made progress in resolving these issues, which will be key to enabling CNS to meet upcoming mission demands.

CNS's overall maintenance backlog has risen approximately five percent in FY 2025. Fire protection systems have experienced a similar rise in corrective maintenance backlog, which currently represents 6.8 months of backlog, more than double of CNS's goal of one-and-a-half to three months. A FY 2024 second quarter assessment identified issues with scheduling, prioritization, and effective coordination of the workforce, which have yet to be fully addressed by CNS. CNS has dedicated additional management attention, but this is still an outstanding issue. Craft utilization has increased slightly from approximately 67 percent to 71 percent over FY 2025. Forty-eight percent of the remaining indirect hours was idle time.

CNS implemented a Site Operations Command Center, a new focal point for prioritization and coordination of resources to resolve atypical conditions across the site that put mission delivery at risk. This new structure has implemented process changes that prioritize correcting habitability issues that impact the workforce, such as continued sewer system and HVAC failures, but CNS still struggled to correct these issues in a timely manner.

## **Goal 6: Mission Leadership**

Amount of At-Risk Fee Allocation: \$9,060,167

### **Goal 6 Summary**

CNS earned a rating of Excellent, and 94 percent of the award fee allocated to this Goal. CNS exceeded almost all Objectives and Key Outcomes and generally met the overall cost, schedule, and

technical performance requirements of the contract under this Goal in the aggregate. During the year, accomplishments significantly outweighed issues, and no significant issues in performance existed.

### **Objective 6.1**

CNS was successful in supporting NNSA's strategic vision by meeting deliverables for capability needs analysis, providing data and participating with the Stockpile Stewardship and Management Plan (SSMP) Integrated Project Group (IPG). CNS submitted the Strategic Plan that appropriately aligned with the NNSA Enterprise Blueprint. CNS continued to evaluate alternate ways to support infrastructure challenges by actively participating in NNSA-led assessments on non-traditional construction options, collaborating with NNSA stakeholders in alternatives to mitigate realized risks in a mission critical production facility, and submitting recommendations on the ultimate use of the off-site Googin facility. A material example of good site planning is represented in the Agile Radiation Case Capability (ARCC) siting discussions that occurred late in the fiscal year.

### **Objective 6.2**

CNS leadership continues to improve CAS effectiveness through myriad actions. Most notably, new data gathering/analysis tools (e.g., Trend Analysis and Problem Prevention forum) have matured significantly and are starting to consistently demonstrate a capability to identify problems before they become significant issues. CNS's approach to prevent event recurrence continued to be a weakness identified by NNSA. This weakness required continued leadership attention as ineffective corrective actions are currently the primary factor inhibiting CAS effectiveness.

### **Objective 6.3**

CNS was successful in partnering with the enterprise to support NNSA objectives and deliverables. This was highly apparent with CNS's collaboration with its DA partners in yielding early results in product realization. Additionally, CNS actively engaged, and in many cases led, NSE collaborations including leading the Smart Factory Focused Working Group, identifying a path for the NSE to utilize the Supply Chain Management Center for smart procedure software procurement, and led initiatives including enhancing design and production agency engagement. CNS is successfully implementing Digital Transformation arena, specifically with AI projects and in enablement of Digital Thread. CNS progressed towards realizing classified Wi-Fi and specific uses cases were presented to the Y-12 Field Office.

### **Objective 6.4**

CNS' TOP 10 Risks portfolio has outperformed its risk burndown in FY 2025 by completing over \$558M in risk burndown with significant impacts in Modernization, Enterprise Planning and Controls (EP&C) and Production activities. CNS continues to improve its risk management approach by focusing efforts on the most critical areas of need for both Y-12 and the NSE at large. As an example, CNS is supporting one of DOE's highest priority initiatives through its work on the AI Capability Pilot Project. Additionally, CNS has reduced cycle times in some of its operational processes (e.g., Tooling Production Process Improvement resulted in 15 percent fewer hours spent despite increase in volume by 82 percent).

### **Objective 6.5**

CNS refined the usability of toolsets to enforce effective visible leadership, established actionable feedback loops to managers and supervisors, and developed recurring conduct of operations training tailored to different employee roles and levels of leadership. Collectively, these actions, when paired with consistent strategic messaging, the continued maturation of longer-tenured initiatives, and the transparency delivered by the Disciplined Operations Council, have given NNSA confidence in CNS's ability to self-sustain performance improvements and close the longstanding management concern on

disciplined operations. In parallel, CNS also made sufficient progress developing a framework for continuous improvement and managing retention-related risks to support closure of the EII on Facility Operations Management performance. Conversely, three fire events in the development area revealed continued conduct of operations weaknesses. The development organization has made significant strides in establishing the structure needed for an effective conduct of operations program. However, additional leadership attention is needed to cultivate conduct of operations champions and foster a culture of self-sustained continuous improvement.

### **Objective 6.6**

CNS met its annual hiring target, which included 104 percent of its hiring target for critical skill labor categories to ensure mission deliverables are met. CNS also continued efforts in attracting and retaining the workforce, as evidenced by a 3.47 percent attrition rate without retirements. In addition, CNS extended the retention incentives program aimed at skilled mechanical construction crafts in anticipation of reducing attrition.

### **Key Outcome 6.1**

The pilot project was successfully completed, and Key Outcome 6.1 expectations were met. CNS, along with a National Security Agency (NSA) Trusted Integrator, developed and deployed a system, mostly virtual in current implementation, that aligned with the NSA Commercial Solution for Classified (CSfC) Wireless LAN (WLAN) Capability Package. Although the physical network and computer infrastructure were virtualized, the end point, WIFI access points (WAP), power over ethernet injector for the WAP, network switch, and wireless controller were all physical in nature and all CSfC approved. The goal of the pilot was specifically to demonstrate a wireless mission capability with effective wireless monitoring and secure response processes. A key takeaway was that although the pilot was completed in a classified facility, actual classified data was not used in the pilot, but the processes designed and tested would be applicable for classified data. The use case for the pilot was the assessment of a wireless hand scanner used during an inventory completion process in the Highly Enriched Uranium Materials Facility (HEUMF). The pilot appeared successful in that it illustrated effective layered encryption of wireless data as defined in the CSfC Capability Package requirements. Effective wireless monitoring and alerting was also confirmed through evaluation of the events and alerts for both the wireless LAN controller and the Security Information and Event Management solution. The project also identified a path forward for incorporating wireless intrusion detection system (WIDS) specific recommendations into the site Incident Response Plan, which have been defined and will be planned for implementation if the implementation of an enduring CSfC solution is selected for implementation based on the pilot results.

## **Goal 7: Site Separation**

Amount of At-Risk Fee Allocation: \$16,106,964

### **Goal 7 Summary**

CNS earned a rating of Excellent, and 92 percent of the award fee allocated to this Goal. CNS exceeded almost all Objectives and Key Outcomes and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, accomplishments significantly outweighed issues and no significant issues in performance existed.

### **Objective 7.1**

CNS demonstrated exceptional performance by successfully completing the highly complex site separation activities well ahead of planned completion deadlines, embracing the Government's mid-year request to complete the activity one fiscal year ahead of schedule. CNS leveraged an industry rich

Governance Board and in partnership with PXD, continued to drive down actions with a laser-focused team, and ensured transparent metrics to convey the status of outcomes to federal stakeholders. The Site Separation Implementation Plan included three steps (Steps 0, 1, and 2) to achieve full autonomous operations. The initial bridging strategy, Step 0, was intended to deliver high priority systems enabling the ability to independently operate which was completed on time. Step 1 was completed by the due date of February 18, 2025, and delivered the remaining SAP business systems on the network. The final step, Step 2, was scheduled for completion by September 30, 2026, and was intended to provide final network separation activities, including migrating remaining business systems, supporting autonomous operations. CNS worked collaboratively with PXD to descope identified activities such as some application migrations and Pantex PeopleSoft retirement and, together, completed this 12 months ahead of the original planned completion date and four months ahead of the NNSA-initiated re-negotiated date of December 2025. All final activities were completed by September 30, 2025, achieving the Government's stretch goal.

### **Key Outcome 7.1**

CNS successfully completed Step 1 activities and milestones 5 days ahead of schedule.

## **CLIN 0002 – UPF Project Management Performance Evaluation**

### **Subjective Evaluation Factor 1: Effective Interactions and Timely Responses**

Amount of At-Risk Fee Allocation: \$806,400

#### **1. Effective Interactions and Timely Responses**

CNS earned a rating of Very Good, and 90 percent of the award fee allocated to this subjective evaluation factor (SEF). CNS exceeded many of the award fee criteria in the aggregate, evidenced by accomplishments that greatly outweighed issues and no significant issues in performance existed.

A notable significant accomplishment over the period was more transparent, integrated development of the comprehensive estimate at completion deliverable, which not only supported NNSA in more rapid evaluation and issue identification, but also greatly improved the quality of the deliverable and its addressal of past, recurring NNSA concerns.

Another was the level of detail in which the actions were addressed from the Integrated Baseline Review and the Commissioning Summit, which greatly improved CNS's addressal of NNSA concerns related to an aggressive commissioning phase by incorporating improved schedule detail and driving earlier startup testing and commissioning activities based on their risk to the project schedule.

Other accomplishments include consistent Title III Engineering support for construction, procurement, and startup through the implementation of a system ensuring all nonconformance reports were resolved prior to system turnover, with no delays reported. Notable progress was made in closing several dated NNSA management concerns with the only exceptions being two from past EA-32 External Assessment still pending resolution. The average age of open corrective reports is 65 days, which represents an acceptable balance of timely resolution and management focus on execution.

While safety issues were not an issue over much of the period, they increased later in the fiscal year and, though CNS generally took acceptable corrective actions for each individually, it took too long to recognize and address the more strategic concern related to a potentially weakened safety culture and the need for more comprehensive actions to ensure the overall effectiveness of the Program. Toward the end of the period, CNS began to implement more strategic measures appropriate to the concern and issue.

While mitigating measures have consistently ensured fire protection of the UPF project facilities, the agreed upon Record of Decision (ROD) and associated milestone dates for activation of permanent systems required updating due to a general lack of prioritization. The need for the update was not recognized by CNS and was driven by NNSA concerns.

## **Subjective Evaluation Factor 2: Effective Integrated Project Management**

Amount of At-Risk Fee Allocation: \$470,400

### **2. Effective Integrated Project Management**

CNS earned a rating of Very Good, and 90 percent of the award fee allocated to this SEF. CNS exceeded many of the award fee criteria in the aggregate, evidenced by accomplishments that greatly outweighed issues and no significant issues in performance existed.

A significant accomplishment noted this period was the reorganization of the project leadership and commissioning and startup team to establish a Project Transition Organization. Almost immediately, this change drove more timely and focused actions on future risks and mitigating actions as discussed and detailed throughout this evaluation.

Recognizing the need to address an almost certain process-driven bottleneck in the commissioning phase of the project based on lessons learned from a recently completed very small project, CNS developed a graded approach to affirmations while ensuring compliance with DOE Order 425.1, Verification of Readiness to Startup or Restart Nuclear Facilities. This was a significant accomplishment in that it reduced engineering related affirmations from an original 3,300 to 1,800 with significance schedule savings, enhancing efficiency in demonstrating readiness.

Another significant accomplishment this period was CNS's management and execution in accordance with the approved baseline. In the past, regular, recurring replanning activities were required due to the lack of alignment to the baseline. This had become the rule, with the project never tracking to a baseline for longer than 6 months. With management rigor and prioritization of effort, CNS successfully managed to the established baseline over the entire period. More significant, CNS did so with a focus on execution of critical path work that has the project completing 6 months earlier than was forecast at the beginning of the period. Further, CNS executed this effort at a lower cost than forecast by maintaining better than baselined or past actual performance rates for craft productivity.

Other accomplishments this period included CNS establishing a system grooming program, identifying priority equipment and ensuring early testing, including for the safety detection and response system, the magnemotion system, the casting gantry crane, and overall heating, ventilation, and air conditioning (HVAC) testing. CNS identified key suppliers and vendors likely to be needed during testing if issues arise and established service agreements to ensure quick, easy access. Further, CNS modified EVMS and reporting requirements to ensure the ability to upload automated data to Headquarters was maintained. Multiple execution strategy changes were managed proactively, even when occurring in or near the freeze period, showcasing CNS's flexibility in adapting to project needs.

The only issue NNSA identified under this SEF was management's ability and prioritization to improve schedule adherence and overall planning. Over the period CNS was unable to manage to the schedule without recurring month-to-month changes, consistently pulling forward critical path activities and pushing activities lower in priority. While NNSA appreciates the wisdom and need for these changes, it presents a concern in that they were not identified at baseline inception or thereafter.

### **Subjective Evaluation Factor 3: Execution within Cost Parameters**

Amount of At-Risk Fee Allocation: \$2,486,400

#### **3. Execution within Cost Parameters**

CNS earned a rating of Very Good, and 90 percent of the award fee allocated to this SEF. CNS exceeded many of the award fee criteria in the aggregate, evidenced by accomplishments that greatly outweighed issues and no significant issues in performance existed.

The most significant accomplishment in this SEF over the period was CNS executing the project in line with the established baseline and a cumulative cost performance index of 1.0 while using \$60M less management reserve than planned and implementing risk mitigating measures supporting the reduction of \$100M in NNSA required contingency.

Another significant accomplishment over the period was CNS executing within the forecast to easily achieve the stretch goals established in the Award Fee Plan and within cost thresholds that allow some encumbering of contingency. CNS created some cost float over this period that improves the likelihood of success and achievement of key milestones that reinforce the culture of urgency NNSA communicated to CNS to instill in its workforce.

The project achieved a milestone in successfully closing longstanding EVMS concerns voiced by DOE's Office of Project Management (DOE-PM) and maintained control of critical schedule activities related to schedule visibility tasks (SVTs), well within established guidelines. Similarly, CNS worked with NNSA over the period to achieve a risk-based solution for data entry into the PARS system that provides the necessary layers of data support while eliminating most nonvalue-added cost tasks, resulting in a cost avoidance of over \$4M annually.

Other accomplishments include the project executing to within 2 percent of the spend plan, resulting in less carryover and scrutiny from external stakeholders; incorporating trends into the schedule within 30 days, ensuring cost and schedule accuracy and represents a dramatic improvement from prior periods; managing the project within established management reserve usage guardrails; and implementing an \$11M cost avoidance measure associated with access once the perimeter intrusion detection and assessment system becomes active.

### **Subjective Evaluation Factor 4: Execution within Schedule Parameters**

Amount of At-Risk Fee Allocation: \$2,956,800

#### **4. Execution within Schedule Parameters**

CNS earned a rating of Very Good, and 90 percent of the award fee allocated to this SEF. CNS exceeded many of the award fee criteria in the aggregate, evidenced by accomplishments that greatly outweighed issues and no significant issues in performance existed.

The most significant accomplishment in this objective over the period was CNS executing the project in line with the established baseline and a cumulative schedule performance index of 0.98 while focusing effort on critical path activities, resulting in no use of schedule reserve, acceleration of the deterministic project completion date by 6 months, and a reduction in NNSA's forecast schedule contingency need of 5 months. With a focus on critical path activities, CNS successfully executed nearly 25 percent more turnovers of systems from construction to testing this period, as well as completed 90 percent more tests than planned. Of the 19 critical milestones tracked on the project, 14 are currently forecast 100 to over 300 days earlier than baselined, 2 are 41 to 65 days earlier than

forecast, and 3 are forecast after their baseline date, but have mitigation measures in place that result in no impact to project cost or schedule.

Another significant accomplishment was CNS completing detailed schedule activities for commissioning activities years ahead of required completion dates. Accepted contract practices allow CNS to maintain distant future activities under planning packages until they enter the execution window 6 months prior to realization, at which point they undergo detailed planning. Recognizing both the need to support successful commissioning activities and NNSA's growing concern related to that phase of the project, CNS completed detailed planning for the entire commission phase of the project over this period. This effort not only resulted in recognition of future issues requiring resolution, but it supports NNSA's ability to examine and better evaluate risks for this phase of work.

An accomplishment this period was the focus on procurement of spares necessary to ensure timely future testing and commissioning activities. Representing a consistent improvement through the period, the project currently has 75 percent of spares on hand, 11 percent on order, and 8 percent in review for order. Additionally, CNS successfully tracked to a corrective action associated with improving schedule detail and fidelity for the commissioning phase of the project.

Issues of concern are largely minor and are associated with metrics and data gaps that could be precursors to a drop in future project performance. One issue is the addition of 913 forecast-only activities in the schedule, which raises some concern that the project may be drifting away from the planned schedule. Similarly, the fact that subcontractor schedule integration continues to be a significant challenge raises concern about future project impacts.

## Schedule Incentive Fee

Amount of At-Risk Fee Allocation: \$14,280,000

<b>Schedule Milestone Summary</b>		
<b>Milestone</b>	<b>Incentive Fee Available</b>	<b>Incentive Fee Earned</b>
UPF.06-01: Complete Q1 Construction Turnovers to Startup	\$1,200,000	\$1,200,000
UPF.06-02: Complete Confirmation of 113 of the 225 To-go DACs	\$ 800,000	\$ 800,000
UPF.07-01: Complete Q2 Construction Turnovers to Startup	\$1,800,000	\$1,800,000
UPF.07-02: Alternate PIDAS Operational	\$1,100,000	\$1,100,000
UPF.08-01: Complete Q3 Construction Turnovers to Startup	\$2,500,000	\$2,500,000
UPF.08-02: MEX LO Furnace – FAT Testing	\$1,100,000	\$1,100,000
UPF.09-01: Complete Q4 Construction Turnovers to Startup	\$3,580,000	\$3,580,000
UPF.09-02: MPB LVP Component and System Testing Complete	\$1,100,000	\$1,100,000
UPF.09-03: SAB YA System Testing Complete	\$1,100,000	\$1,100,000
<b>Total</b>	<b>\$14,280,000</b>	<b>\$14,280,000</b>

## ATTACHMENT 1 - CLIN 0001K FY 2025 Performance Evaluation and Measurement Plan (PEMP)

### Goal 1

Successfully execute the cost, scope, and schedule of the Nuclear Stockpile mission work for Defense Programs work in a safe and secure manner in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

#### Objective 1.1

Work as a team across the Nuclear Security Enterprise to provide the knowledge, personnel, and capabilities to enable development of new and innovative materials, processes, and components to accelerate towards higher technology and manufacturing readiness levels and rate production.

#### Objective 1.2

Work as a team across the Nuclear Security Enterprise to plan and execute production sustainment and integration, nuclear enterprise assurance, ensure nuclear explosive safety, and effective weapon quality assurance to ensure the nuclear security enterprise optimizes production operations, minimizes quality escapes, and increases the resiliency of nuclear weapons and nuclear weapon production and sustainment activities within normal, abnormal, and adversarial environments well into the future.

#### Objective 1.3

Work as a team across the Nuclear Security Enterprise to execute assigned work to maintain and enhance the safety, security, reliability, and performance of the US nuclear weapon stockpile. Execute planning, development, certification, assessment/surveillance, production, and maintenance of the current U.S. nuclear weapon stockpile, including all associated documentation and hardware, consistent with mission and task assignments.

#### Objective 1.4

Work as a team across the Nuclear Security Enterprise on stockpile modernization program scope to 1) achieve and maintain program delivery schedules; 2) lower risk to achieving First Production Unit (FPU), Last Production Unit (LPU), and program overbuilds; 3) improve supply chain execution; and 4) control costs.

#### Objective 1.5

Work as a team across the Nuclear Security Enterprise to develop and execute modernization strategies to ensure NNSA's strategic materials and component manufacturing capabilities will meet future nuclear weapons production requirements. Execute work focused on sustainment of existing capabilities, re-establishment of lost capabilities, deployment of new capabilities and technologies, and strategic investments to ensure timely material and component deliveries.

#### Objective 1.6

Work as a team across the Nuclear Security Enterprise to implement Digital Transformation principles by using Digital Engineering to improve product design, production, sustainment, and business practices.

#### Key Outcome 1.1

Produce eight production Vacuum Arc Remelt (VAR) secondary ingots for VAR qualification by September 30, 2025.

### Goal 2

Successfully execute the cost, scope, and schedule of the authorized global nuclear security mission work in a safe and secure manner to include the Defense Nuclear Nonproliferation, Nuclear

Counterterrorism and Counterproliferation, and Incident Response missions in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

**Objective 2.1**

Support efforts to enhance global nuclear security by securing and preventing the trafficking of nuclear and radioactive materials.

**Objective 2.2**

Support U.S. national and nuclear security objectives in reducing global nuclear security threats through the innovation of technical capabilities to detect, identify, and characterize: 1) foreign nuclear weapons programs, 2) illicit diversion of special nuclear materials, and 3) global nuclear detonations.

**Objective 2.3**

Support efforts to achieve permanent threat reduction by managing and minimizing excess weapons-useable nuclear materials and providing nuclear materials for peaceful uses.

**Objective 2.4**

Support efforts to prevent proliferation, ensure peaceful nuclear uses, and enable verifiable nuclear reductions to strengthen the nonproliferation and arms control regimes.

**Objective 2.5**

Sustain and improve nuclear counterterrorism, counterproliferation, and forensic science, technology, expertise and associated Nuclear Emergency Support Team (NEST) capabilities; execute response missions, implement policies and procedures in support of response and forensics missions, and assist international partners/organizations.

**Key Outcome 2.1**

Produce no less than 2,500 KgU of High Assay Low Enriched Uranium (HALEU) castings (assuming availability of sufficient feedstock), while sustaining a quantity of HALEU on hand that equals or exceeds the expected demand for the Fiscal Year by September 30, 2025.

**Goal 3**

Successfully advance national security missions through innovation by expanding the frontiers of Science, Technology, and Engineering (ST&E). Execute transformative and leading-edge Research and Development (R&D) by creating a vibrant, creative, environment that leverages effective partnerships and technology transfer endeavors. Effectively manage high-impact DOE Work and Plant Directed Research and Development (PDRD) and Technology Transfer, etc. in a safe and secure manner consistent with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

**Objective 3.1**

Execute a research strategy that is clear and aligns discretionary investments (e.g., PDRD) with plant strategy and supports DOE/NNSA priorities particularly to improve manufacturing and production technology.

**Objective 3.2**

Ensure that research is relevant, enables the national security missions, and benefits DOE/NNSA and the nation.

**Objective 3.3**

Ensure that research is transformative, innovative, leading edge, high quality, and advances the frontiers of science and engineering.

### **Objective 3.4**

Maintain a healthy and vibrant research environment that enhances technical workforce competencies and research capabilities.

### **Objective 3.5**

Research and develop high-impact technologies through effective partnerships and technology transfer mechanisms that support the plant’s strategy, DOE/NNSA priorities and impact the public good; and ensure that reporting, publishing, and information management requirements of federally funded scientific research and development are implemented (via DOE’s Public Access Plan) and per DOE’s Scientific and Technical Information Management directive (DOE O 241.1B or its successor).

### **Objective 3.6**

Pursue and perform high-impact work for DOE that strategically integrates with the DOE/NNSA mission, and leverages, sustains and strengthens unique science and engineering capabilities, facilities, and essential skills.

### **Goal 4**

Effectively and efficiently manage the safe and secure operations of the plant in accordance with cost, scope, and schedule, while maintaining an NNSA enterprise-wide focus; demonstrating accountability for mission performance and management controls; successfully executing cyber, technical, informational, and physical security requirements, and assure mission commitments are met with high-quality products and services.

### **Objective 4.1**

Deliver effective, efficient, and responsive Environment, Safety, and Health (ES&H), Quality (including a Weapon Quality Management System and software quality) and waste management. Advance DOE/NNSA’s energy security and resilience by progressing onsite generation where applicable.

### **Objective 4.2**

Deliver effective, efficient, and responsive safeguards and security, including assigned enterprise initiatives.

### **Objective 4.3**

Deliver efficient, effective, supportable, and transparent financial management operations and systems including financial integration reporting; budget formulation and execution; programmatic cost estimates; and internal controls.

### **Objective 4.4**

Deliver efficient and effective management of legal risk and incorporation of best legal practices. Deliver timely and actionable recommendations and analysis to Freedom of Information Act and Privacy Act requests.

### **Objective 4.5**

Deliver effective, efficient, secure, and responsive information technology (IT) systems that support mission and functional area delivery. Ensure execution of all implementation factors established in the NA-IM IT and Cybersecurity Program Execution Guidance to strengthen day-to-day IT and cybersecurity operations.

### **Objective 4.6**

Deliver effective, efficient, and responsive plant emergency management programs in support of the DOE/NNSA Emergency Management Enterprise.

### **Objective 4.7**

Deliver efficient, effective, and compliant business operations including, but not limited to, procurement, human resources, and property systems, in support of NNSA missions. Focus areas include; achieving small business and socioeconomic goals; evaluating opportunities for, and implementing, as necessary, effective subcontracting approaches to expand the small business industrial base for appropriate construction work scope; performing timely and high-quality subcontract actions; and supporting enterprise-wide recruitment events and retention efforts.

### **Goal 5**

Effectively and efficiently manage the infrastructure lifecycle process to meet current and emerging national security challenges through integrated infrastructure planning, acquisition, and prioritization. For clarity, projects with separate award-fee structures are not considered under this Goal.

### **Objective 5.1**

Implement a comprehensive and integrated infrastructure prioritization and planning process. Update planning data and mission needs in the G2 Program Management system planning module for the FYNSP to support strategic planning elements, such as the Enterprise Blueprint, Master Asset Plan, Area Plans, and Deep Dives. Provide cost and schedule estimates in accordance with established guidance to ensure mission delivery.

### **Objective 5.2**

Plan and execute Capital Asset Line-Item Construction Projects, minor construction projects, capital equipment projects (including Major Items of Equipment), real property acquisitions, and disposition projects in accordance with cost, scope, schedule baselines, technical requirements, code of record and/or execution plans. Monitor and report on project performance against baselines, provide accurate and timely deviations on performance to stakeholders, and utilize risk management processes.

### **Objective 5.3**

Develop and execute operations and maintenance strategies, consistent with available funding, that enable reliable asset performance and enduring facility capabilities that align with mission requirements and priorities.

### **Goal 6**

Successfully demonstrate leadership in supporting the direction of the overall DOE/NNSA mission, cultivating a Performance Excellence Culture that encompasses all aspects of operations and continues to emphasize safety and security, improving the responsiveness of CNS leadership team to issues and opportunities for continuous improvement internally and across the Enterprise, and parent company involvement/commitment to the overall success of the plant and the Enterprise.

### **Objective 6.1**

Define and implement a realistic strategic vision for the plant, in alignment with the NNSA Strategic Vision, which demonstrates enterprise leadership and effective collaborations across the NNSA enterprise to ensure DOE/NNSA success.

### **Objective 6.2**

Demonstrate performance results through the institutional utilization of a Contractor Assurance System and promoting a culture of critical self-assessment, transparency, and accountability through the entire organization, while also leveraging parent company resources and expertise.

### **Objective 6.3**

Develop and implement a Nuclear Security Enterprise-wide partnership model that enhances collaboration, reinforces shared fate and enables mission success including transformation (e.g., digital) of the stockpile and the enterprise.

**Objective 6.4**

Exhibit professional excellence in performing roles/responsibilities while pursuing collaborative opportunities for continuous organizational and enterprise learning and demonstrated improvements that will enhance productivity, grow the capacity to execute mission, and manage, rather than avoid risk when appropriate. Pursue innovations to increase agility and resilience while controlling costs. Advance the operational capabilities of the Nuclear Security Enterprise by identifying and employing latent capacity existing in the enterprise.

**Objective 6.5**

Demonstrate leadership in driving enhanced and sustainable formality and rigor of operations through proactive implementation of effective and efficient measures to minimize operational upsets that have potential to impact mission.

**Objective 6.6**

Leadership takes decisive action, as a cooperative partner of NNSA, to attract and retain the workforce needed to achieve the nuclear security enterprise missions, with particular emphasis on critical and under-resourced skill sets, reaching back to parent company resources as necessary.

**Key Outcome 6.1**

Conduct and deploy a multi-disciplinary digital transformation pilot focused on a limited deployment of a new wireless Commercial Solutions for Classified Capability Package in HEUMF to demonstrate enabling mission capability with effective wireless monitoring and security response processes by September 30, 2025.

**Goal 7**

Successfully execute the cost, schedule, and scope of the separation of Y-12 and Pantex in accordance with the DOE/NNSA approved site separation implementation plan (SSIP).

**Objective 7.1**

Execute activities necessary to prepare Pantex and Y-12 for full autonomous operations in accordance with approved SSIP.

**Key Outcome 7.1**

Complete all SSIP Step 1 activities by February 18, 2025, consistent with the schedule in the SSIP.

### **1. Effective Interactions and Timely Responses**

The Contractor shall ensure project issues identified by NNSA and/or Contractor(s), particularly those affecting safety, security, quality, and project performance, are promptly, effectively, and transparently addressed. The Contractor shall respond to issues identified by NNSA, including but not limited to assessment issues, reviews, and awareness activities within requested timeframes. The Contractor shall notify the appropriate NNSA functional counterpart of Contractor identified issues and take appropriate project or contract actions to adequately address. The Contractor shall support NNSA in project related areas such as budget exercises, quarterly reviews, tours, etc.

The Contractors Primary Evidence for this Factor:

- Contractor Assurance System (CAS) Resolutions.
- UPF Nonconformance Reports (NCRs)/Field Change Documents (FCDs).
- Responsiveness to requests and meeting Contractor commitments.
- Contractor's Estimate at Completion (CEAC) and Spend Plans (obligations and expenditures) efforts that support budget cycle.

### **2. Effective Integrated Project Management**

The Contractor shall sustain a fully integrated project organization focused on executing the UPF Capital Line-Item Project in accordance with the approved project performance baselines, work authorizations, and Contract. The Contractor shall perform and manage in a transparent and quality manner that applies effective cost controls and decisions to stay on schedule. This includes a rightsized integrated organization with personnel empowered to lead change within a disciplined conduct of project management utilizing project management systems, processes and procedures aligned with Department of Energy Order 413.3B, DOE/NNSA guides and industry standards. The Contractor's project management system, personnel and organization are competent, appropriately rigorous, integrated, and agile for large, complex and long duration projects. Primary evidence for this Factor shall be demonstrated performance that meets and/or exceeds planned productivity and production rates while actively integrating functional inputs into the design, procurement, and construction outputs. The Contractor shall strive to minimize rework, idle time, unit rate changes, and put in controls to eliminate inaccurate earning.

The Contractor's Project Management Control System shall at a minimum:

- Maintain a compliant Earned Value Management System (EVMS) that timely resolves any Corrective Action Requests (CARs) and Discrepancy Reports (DRs).
- Variances and resulting impacts to the projects shall be analyzed at least monthly and appropriate, timely actions shall be taken to mitigate future variances/impacts.
- The trend program shall identify, document, approve and implement working performance baseline changes in a timely and cost-effective manner considering both cost and schedule impacts of each trend.
- Maintain an Integrated Master Schedule that accurately status design, procurement, technology development and integration fabrication, construction, assembly, test activities, commissioning and turnover of operations, including critical path schedules, monthly status reports, and PARS uploads on a regular and timely basis.
- Provide timely and thorough analysis and basis to support development of impact-based decisions (i.e., date at which decisions need to be made to avoid impact, and recommend prioritization, actions/options, with sufficient time for Government to act.

### 3. Execution within Cost Parameters

The Contractor shall execute Cost Performance efficiently and effectively within the NNSA approved Target Cost and PMB to ensure NNSA mission commitments and Contractor commitments are met with timely, high-quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748, as defined on Contract. For the avoidance of doubt, the ability to earn fee under this Subjective Fee Criterion in no way modifies any provision of the Settlement Agreement or any provision under the Contract as it relates to the method in which fee is earned for the Cost Objective. Primary evidence for this Factor shall be demonstrated effective cost performance against the PMB.

The Contractor's Cost Parameters shall at a minimum:

- Complete authorized scope in accordance with the PMB; provide timely and accurate project cost reporting.
- Manage and maintain a deliverable-based resource-loaded Work Breakdown Structure (WBS) baseline; cost control accounts, work packages and planning packages consistent with industry best practices and standards and compliant with the
- Contractor's Earned Value Management System Description (EVM-SD).
- Implement improved change control management of scope, cost, and schedule in accordance with the applicable threshold tables contained in the approved Project Execution Plans and in accordance with DOE orders and the EVM-SD.
- Update Earned Value Management System (EVMS) tools with PMB data in accordance with Construction Contracting Officer (CCO) direction.
- Provide early warning accurate cost forecasting and analyze cost performance during each monthly period.
- Accurately measure earnings, e.g., work accomplished; implement controls to identify, report, and correct problems within the next reporting period after problems identified.
- Expend funds and resources that optimally provide maximum benefit to tax payer;
- Generate cost savings opportunities and ways to reduce project costs.
- Demonstrate cost effective procurement and subcontract management.
- Actively mitigate cost growth and performance impacts and only approve Trends after all mitigation steps have been exhausted.
- Execute the Trend program in accordance with April 5, 2023 CO direction, "UPF Project Usage of Management Reserve."
- Identify, quantify and mitigate technical, programmatic, schedule, and cost risks.
- Ensure prompt resolution of any post IBR findings and corrective actions.

### 4. Execution within Schedule Parameters

The Contractor shall execute Schedule Performance effectively and efficiently within the approved NNSA approved Integrated Master Schedule (IMS) and PMB to ensure NNSA mission commitments and Contractor commitments are met with timely, high-quality deliverables, in accordance with DOE Order 413.3B and ANSI/EIA-748, as defined on Contract.

Primary evidence for this Factor shall be demonstrated effective schedule performance against the IMS and PMB.

The Contractor's Schedule Parameters shall at a minimum:

- Complete authorized scope in accordance with the PMB; provide timely and accurate project cost reporting.
- Manage and maintain an IMS to support project management, execution and control; include the total scope of baselined work and identify WBS elements for all activities and milestones; identify interdependencies between project activities/milestones to reflect a credible, logical project sequence; activity durations which are reasonable, measurable, and appropriately detailed for effective management; appropriate activity and resource calendars are employed.

- Update EVMS tools with PMB data in accordance with CO Direction.
- Implement improved change control management of scope, cost, and schedule in accordance with the applicable threshold tables contained in the approved Project Execution Plans and in accordance with DOE orders and the EVM-SD.
- Maintain current project status and credible start/finish forecasts for all to-go tasks and milestones; include project and management controls milestones.
- Ensure there are no changes to NNSA activities without direction from CO.
- Manage a credible critical path and near critical paths as determined by the calculated IMS logic network. This includes prioritization of near-term critical paths and mitigation of delays prior to finalization of critical path reporting.
- Ensure adequate schedule margin has been included and clearly defined;
- Ensure the number of lags/leads and activity constraints is limited and reasonable and within limits established by DOE.
- Schedule should include subcontracted scope detail into schedule/critical path to ensure successful integration. This includes identification of prerequisite work to ensure timely completion of subcontracted scope at a sufficient level of detail to manage required interfaces.
- Hold subcontractors accountable and avoid/mitigate impacting subcontract performance.
- Minimize construction down times; delays to construction activities are minimal, and all delays are proactively identified, tracked, analyzed for patterns, evaluated for quick resolution, and reported expeditiously to NNSA.
- Actively mitigate schedule growth and performance impacts and only approve Trends after all mitigation steps have been exhausted.
- Identify, quantify and mitigate project schedule risks; perform schedule risk analysis to accurately predict the probability of completing on time.
- Ensure prompt resolution of any post IBR findings and corrective actions.