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National Nuclear Security Administration  
Mission Support and Test Services, LLC  
Performance Evaluation Report  
Contract No. DE-NA0003624

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Nevada Field Office

Evaluation Period:

October 1, 2024, through September 30,  
2025

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December 12, 2025

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## Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration's (NNSA) assessment of the performing entity, Mission Support and Test Services, LLC's (MSTS), performance of the contract requirements for the period of October 1, 2024, through September 30, 2025, as measured against the applicable 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 MSTS performance, as required by Federal Acquisition Regulation (FAR) Subpart 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 (M&O) 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.”

The NNSA took into consideration all input (e.g., Contractor Assurance System (CAS), Program Reviews) obtained from NNSA Program and Functional Offices both at Headquarters and in the field. This report provides performance feedback, highlighting key accomplishments and issues that need attention.

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

The MSTS workforce maintained operational capabilities required to execute aging/production science experiments to provide data relevant to improving predictive capability, assessing the current stockpile, and certifying the future stockpile in accordance with milestone schedules. Notable contributions include support for three Subcritical Experiment (SCE) series simultaneously. MSTS significantly contributed by fabricating Ultrafast Closure Valve (UCV) units to support experiment schedules. MSTS made valuable contributions to modernize the stockpile through successful execution of experiments aimed at determining plutonium material dynamic property response in support of pit certification for the W87-1 Modification Program and hardware development support to meet W-87, W88 Alteration (Alt) 370 and B61 production needs. MSTS met Dynamic Materials Properties and High Energy Density Physics requirements through design, development, and testing of cutting-edge diagnostics and experimental platforms for future experiments and weapons performance assessment across the nuclear security enterprise (NSE) including diagnostic and component characterizations to support ignition experiments.

MSTS successfully executed multiple experimental campaigns and delivered on experimental testbed construction milestones supporting Defense Nuclear Nonproliferation (DNN) programs. MSTS demonstrated operational excellence conducting worldwide NNSA high-impact, high-visibility operations, drills, and training events supporting Counterterrorism and Counterproliferation (CTCP) programs. Notable contributions include completion of Phase II mining for Low-Yield Nuclear Monitoring (LYNM) Physics Experiment-1 (PE-1) ahead of schedule, completion of corehole drilling and installation of critical instrumentation for the Rock Valley Direct Comparison (RVDC) testbed and the first-ever data collection user event at the scientific Signals Exploratory Testbed (SET). MSTS provided valuable technical expertise and contributions toward U.S. Government support of the Preparatory Commission for the Comprehensive Test Ban Treaty Organization. MSTS provided technical staffing and expertise in support of an unprecedented tempo of National Security Special Events (NSSE) securing the nation from potential radiological/nuclear threats including the U.S. Presidential Inauguration, 2025 Presidential Address to the Joint Session of Congress, U.S. Army 250th Birthday Parade and Celebration. MSTS continued to effectively support Pre-Detonation Device Program Disposition and Forensic Evidence Analysis Team (DFEAT), successfully maintained operational readiness to respond to an incident, and completed a first-of-a-kind nuclear forensics

exercise. MSTS expanded CTCP field training capabilities and completed multiple field training exercises to demonstrate capabilities for Nevada Capabilities.

MSTS increased the experimental pace across multiple facilities and enhanced capabilities associated with mission delivery including execution of a substantial portfolio of recapitalization and maintenance projects. MSTS made significant progress in this portfolio, executing projects, maintaining schedules and budgets within available funding, and providing quality, timely, and reliable reporting. MSTS executed infrastructure and mission critical facility projects to address mission requirements including risk reduction, workforce safety, and site user services, and executed a strong Operations, Maintenance and Repair (OM&R) program, growing M&R cadence across the Nevada National Security Site (NNSS) mission facilities. Enhanced Capabilities for Subcritical Experiments Line-item projects continue to experience some schedule delays and increased costs; however, MSTS has achieved significant improvement in overall line-item project execution performance.

MSTS worked to improve mission enablement in the areas of Environment, Safety, Health, and Quality management. MSTS injury and illness rates decreased below NNSS historical averages, a significant improvement over the last two rating periods. MSTS leveraged Safety Performance Objectives, Measures, and Commitments data to strategically develop and execute safety culture enhancements including Mission Ready, All-In, and Craft Voice in Safety. MSTS achieved Department of Energy (DOE) Laboratory Accreditation Program (DOELAP) approval for the Landauer InLight optical stimulated luminescence (OSL) dosimeter system, the first and only Site implemented within the Department of Energy (DOE) complex.

## Goal 1: Mission Delivery: Nuclear Weapons

Amount of At-Risk Fee Allocation: \$13,401,527

### Goal 1 Summary

MSTS earned a rating of Excellent, and 93 percent of the award fee allocated to this Goal. MSTS 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 1.1

MSTS contributed to NNSA Defense Programs through the development and fielding of diagnostics for small and large-scale experiments used to acquire weapon-relevant data. MSTS provided knowledge, personnel, and capabilities to maintain confidence in the nuclear stockpile including development of diagnostics (e.g. data collection software, radiography techniques, cameras/imaging systems) that capture hard to acquire data required for future assessment and certification efforts. MSTS performed manufacturing studies, assembly, and qualifications of state-of-the-art diagnostics to satisfy new requirements vital to the weapons community and completed cross training to ensure redundancy-in-depth expertise.

MSTS completed 14 focused experiments collecting data to advance the understanding for ejecta production, tailoring/improving deployment of ejecta diagnostics. Data evaluation explored comparison of Asay window configurations, shallow bubble collapse confinement, and diagnostic limitations for near and long-term subcritical experiment series. MSTS performed prompt radiation detector response modelling and analysis for the Neutron Diagnosed Subcritical Experiments program enabling higher accuracy for energy distribution inputs during simulated experiments.

MSTS collected 80 experiments of comparative data with a mission partner for a stepped rod anode and exceeded fiscal year (FY) 2025 Calibration Plan requirements by completing 317 diagnostic and component characterizations. MSTS successfully fielded the multiple Opacity Spectrometer diagnostics with 22 total shots at the National Ignition Facility. These are significant contributions to inertial confinement fusion and build confidence in the fidelity of experimental data.

#### Objective 1.2

MSTS made significant progress in evolving the Nuclear Enterprise Assurance (NEA) program needed to assure secure operations and modernization programs considering growing threats by developing out-of-band-monitoring capabilities, supporting Imperial Exercises, and building a qualification process for NEA workforce. MSTS designed, developed, fielded, and tested a prototype data collection system used to perform out-of-band monitoring of subtractive manufacturing equipment. MSTS collaborated with NNSA nonproliferation mission partners to introduce this unique capability and will perform further algorithm development and verification of methods for operational technology equipment.

MSTS performed risk discovery and analysis on an experiment testbed Data Acquisition System and the NNS work planning process. As a result, NEA provided risk mitigation recommendations, enabling stakeholders to make informed decisions that enhance data assurance for subcritical experiments and strengthen the Stockpile Stewardship mission.

MSTS implemented a proficiency training program for NEA personnel, encompassing 11 key knowledge bases that will be a part of the qualification. All identified assurance personnel were enrolled in the training program, enabling program leadership to track proficiency and meet program requirements.

MSTS actively participated in enterprise-wide production integration working groups and various initiatives for maturing new technologies to leverage for modernization efforts.

### **Objective 1.3**

MSTS supported B61 surveillance high explosive experimental series critical to NNSA's ability to assess and certify the reliability of the existing B61 warhead and development of the B61-12. MSTS also supported the Weapons Dismantlement and Disposition program, executing 100 percent of FY 2025 planned disposition activities.

### **Objective 1.4**

MSTS made valuable contributions to modernizing the stockpile through experiment and hardware development provisions to meet the W87-1 First Production Unit and W88 Alt 370 warhead schedules. MSTS completed successful execution of Joint Actinide Shock Physics Experimental Research (JASPER) facility actinide experiments providing data for W87-1 decision making, with 100 percent data collection for deployed diagnostics of each experiment. MSTS made improvements and upgrades to the JASPER Flash X-ray diagnostic and the control system and delivered additional Quality Grade 1 Primary Target Chambers to support actinide experiments. MSTS coordinated with the Capabilities-Based Investments (CBI) program to issue procurements for strategic and special spare gas gun parts to reduce mission risk.

MSTS Hardware Support Facility successfully fabricated 12 (UCV) units, addressing critical delays in actinide experiments caused by issues with a nuclear weapon laboratory (NWL) vendor. This intricate fabrication was a significant accomplishment due to its complex nature and accelerated timeline. Subsequent UCV testing confirmed readiness of the newly fabricated parts, directly enabling the execution of the next actinide experiment and fulfilled completion for an FY 2025 Level 2 milestone for the NWL. MSTS' notable achievement allows continuation of essential physics experiments on actinide materials.

MSTS leveraged hardware machining capabilities in aid of NNSA's efforts to improve the agility of the enterprise, supporting responsive machining requests from Los Alamos National Laboratory (LANL) and Lawrence Livermore National Laboratory (LLNL) to reduce risk to the W87-1, W88 ALT 370, and B61 programs delivering 113 parts on schedule

### **Objective 1.5**

MSTS contributed to enterprise plutonium storage and transportation challenges through development of the Enhanced Staging Program (ESP). MSTS continued identification of staging requirements, process and procedure development, readiness verification activities, and are on track to achieve Authorized User status for several new shipping containers. MSTS also became key contributing members in two Matrixed Execution Team Working Groups enhancing collaboration across the complex to advance storage and transportation solutions.

MSTS was a key contributor to modeling initiatives that improve production related information security and sharing. MSTS completed systems administration and cyber tasks on multiple platforms, geographic information system software upgrades, and upgrade/migration of product development applications, efforts performed for Integrated Modeling and Analysis and Enterprise Modeling and Analysis Consortium (EMAC) initiatives. MSTS completed development of the program of record EMAC assessment application on the Enterprise Programmatic and Infrastructure Capabilities red network.

MSTS leveraged a new three-dimensional (3D) printing capability to deliver cost and schedule efficiencies across several projects. MSTS printed critical components for a workstation, preventing significant schedule delay for the Advanced Sources Detector (ASD) Line-Item construction project. MSTS reverse-engineered a critical Better Effective Field Focus Imaging camera component after the

vendor ceased operations, enhancing the design to enable adjustable speed and range for diverse experimental parameters. A 3D-printed prototype identified and resolved an actuation issue, preventing costs associated with rework and manufacturing delays. JASPER isolation and connector panels were printed within a single day at a lower cost, mitigating project schedule and cost impacts.

### **Objective 1.6**

MSTS supported NNSA Digital Transformation (DT) priorities through representation on each of the four DT pillars. MSTS actively engaged in culture, policy, infrastructure, and engineering working groups and met all deliverables to support the DT 1.0 Roadmap. MSTS co-chaired the Organizational Excellence Working Group to maintain continuity and establish milestones for DT 2.0. MSTS led Product Realization Integrated Digital Enterprise (PRIDE) dashboard development efforts as the product owner and initiated the Enterprise Secure Network (ESN) Hub onboarding process to deploy foundational applications of the PRIDE analytics and reporting platform and completed the deployment of ESN Hub equipment at all locations. MSTS continued its role as a member of the PRIDE charter team within Multi Weapon Systems and demonstrated leadership in the NSE weapons data dashboard development efforts and the analytics and reporting platform.

### **Key Outcome 1.1**

MSTS maintained operational capabilities to execute SCEs and exceeded milestones associated with Nob Hill.

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

Amount of At-Risk Fee Allocation: \$5,743,511

### **Goal 2 Summary**

MSTS earned a rating of Excellent, and 95 percent of the award fee allocated to this Goal. MSTS 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**

MSTS developed and delivered an unprecedented international nuclear emergency management training program covering radiological detection, equipment usage, and operations management for nuclear and radiological crisis response, incident assessment, and aerial support.

### **Objective 2.2**

MSTS continued to demonstrate effective integration of several multi-laboratory teams to plan and execute NNSA Office of DNN programs at the NNSS contributing scientific expertise and experimental test bed capabilities. MSTS successfully completed the RVDC corehole drilling, the deepest drilling effort in the history of the NNSS. This significant milestone for the multi-laboratory team involved managing multiple geophysical logging operations, collecting diverse data with high capture efficiency, and obtaining groundwater samples and elevation measurements. MSTS installed critical instrumentation to the required depth enabling the DNN venture team to collect seismic and temperature data ahead of schedule. The team achieved an outstanding core recovery rate, collecting substantial footage, including large, sound portions and many pieces exceeding a quarter of a foot.

MSTS successfully completed Phase II mining activities for the LYNM project six weeks ahead of schedule and met all planned FY 2025 procurement and construction milestones. MSTS effectively collaborated with NWLs to prepare for high-explosives (HE) operations. MSTS successfully initiated

borehole drilling activities for FY 2026 scheduled explosive experiments. MSTS procured and modified equipment for precise emplacement of HE packages, facilitating realistic mock emplacement rehearsals. MSTS initiated planning for re-entry drilling into the Experiment A cavity in FY 2026, involving designing, procuring, and testing essential equipment modifications such as a gas shutoff system, to enable readiness and safe operations for the first cavity re-entry at the NNS in over several decades.

MSTS significantly improved its foreign nuclear weapons program detection and characterization capabilities through consistent scientific support. Key achievements include upgrading the SET for enhanced multi-lab venture data collection, demonstrated by the Building Baseline 3 event. MSTS also supported a NEA user event, finalized design requirements with the DNN venture team, and continued to foster cross-organizational collaboration furthering Advanced Manufacturing capabilities. MSTS completed two significant experimental campaigns that probed the underlying physics of radio frequency signals emanating from weaponization tests. MSTS successfully led internal and multi-lab subcritical signatures venture data collection and analysis efforts. MSTS developed a rigorous computational physics-based model for interpreting radiological measurements collected at altitude for Nuclear Emergency Support Team (NEST) Aerial Measurement System (AMS) operations. MSTS also successfully transitioned their state-of-the-art collection tool from the Solids for Gas Capture project to two interagency end-users.

### **Objective 2.3**

MSTS provided excellent Mobile Packaging Exercise performance, with deployment of field-operable Emergency Communications Network (ECN) equipment and mobile communications equipment. MSTS demonstrated multiple innovative methods of communication during this multiagency effort which enabled a successful opportunity for interagency conduct of operations and emphasized relevance to the DOE/NNSA mission as a premier communications network serving national and global security interests.

### **Objective 2.4**

MSTS provided valuable contributions toward U.S. Government support of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, including participation in expert meetings.

### **Objective 2.5**

Through a continued high number of operations, drills, and exercises, MSTS effectively managed the watch bill, including the Foreign Emergency Support Team and Domestic Emergency Support Team, and ensured readiness of DOE Primary Mission Essential Function 2, Protect Against and Respond to Nuclear Incidents, response capability.

MSTS provided exceptional expertise, operational support, and training to the Ukraine mission and North Atlantic Treaty Organization capacity building in the areas of consequence management and disaster response. MSTS also provided significant subject matter expertise on emergency preparedness and response activities for the International Atomic Energy Agency community focused on nuclear security measures for major public events and ports to support worldwide nuclear response readiness. MSTS continued efforts for the CTCP Pre-Detonation Device Program and successfully executed two nuclear forensics exercises, including a first-of-a-kind addressing a key milestone requirement derived from National Security Presidential Memorandum (NSPM-35) with a high level of sustained coordination and integration across the NSE.

MSTS provided technical staffing, expertise, and operations for an unprecedented tempo of National Special Security Events (NSSE), securing the nation from potential radiological/nuclear threats (e.g. 2025 Counting and Certification of Electoral Votes, State Funeral for President Carter, 2025

Presidential Inauguration, and the U.S. Army 250th Birthday Parade and Celebration). MSTS provided critical staffing, expertise, and operations for the NEST drills/exercises and real-world events to protect the public (e.g. Formula 1 Las Vegas Grand Prix, Las Vegas New Years Eve, Rose Bowl, Super Bowl LIX), requiring extensive collaboration with local and federal law enforcement.

MSTS achieved Startup Authorization for unique expanded CTCP field training capabilities with long-term benefits to national and international response teams in preparation for a full-field Render Safe exercise. MSTS expanded classified infrastructure capabilities for Home Team operations with integration into larger OneNEST working environments, improving technologies and vital communications for NEST capabilities. MSTS developed a framework for the Human Performance Analytics Program, including the enterprise-wide deployment of its methods to combat operational fatigue and burnout. This involved designing and delivering a technology suite for the NEST Field Element Mobility Human Performance Center to reflect operational realities faced by NEST responders.

### **Key Outcome 2.1**

MSTS successfully completed Phase II mining activities for LYNM PE-1 six weeks ahead of the agreed upon milestone and met all planned FY 2025 procurement and construction milestones.

### **Key Outcome 2.2**

MSTS enhanced operational effectiveness by designing, documenting, and implementing key partner data streams for a unified Common Operating Picture during major special events, including the 2025 Presidential Inauguration and Super Bowl LIX, and a large-scale test campaign with NEST and nonproliferation partners to identify threat sources in Global Positioning System-denied environments. MSTS also successfully integrated radiological/nuclear detection data from multiple systems into the OneNEST datastore. Radiological data interoperability was enabled using direct server-to-server transmission, Tactical Assault Kit federation and integration, and direct integration of system data via application programming interface to commercial systems. MSTS enabled cloud-based alarming for preventive/radiological nuclear detection and search missions, allowing standardization of data telemetry to the cloud. MSTS executed 100 percent of the assigned international and domestic partner capacity building engagements.

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

Amount of At-Risk Fee Allocation: \$1,914,504

### **Goal 3 Summary**

MSTS earned a rating of Excellent, and 98 percent of the award fee allocated to this Goal. MSTS 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**

MSTS reorganized and streamlined the Site-Directed Research and Development (SDRD) Science and Technology Thrust Areas and proposal guidance, evaluation, and selection processes to enhance alignment with NNSA's current and most pressing mission priorities - Advanced Sources, Advanced Detectors, Hydrodynamic Diagnostics, Geophysics/Seismology, Detection/Sensing, and Artificial Intelligence/Machine Learning (AI/ML). MSTS successfully completed planned SDRD and Technology Transfer (TT) activities, advancing national security missions, with emphasis placed on high-quality and high-impact activities, such as recruitment, development, and retention of Science,

Technology, Engineering, and Mathematics (STEM) personnel. This fostered professional publications and university collaborations, enhancing credibility in the national security sciences.

### **Objective 3.2**

Through SDRD, TT, and university relations, MSTs pursued advanced technology partnerships that benefit broader national security needs and enhance U.S. competitiveness. MSTs consistently demonstrated advances in innovative national security technologies through research and development (R&D) investigations of multiple technologies, benefiting nonproliferation and emergency response toolkits, and stockpile diagnostic portfolios. MSTs' research on expanding and improving capabilities of nuclear fuel cycle gas collection systems was adopted for use by DNN and other partner nonproliferation missions. Leveraging university and industry relationships, MSTs addressed gaps in critical skills and enhanced high energy science capabilities at NNSS.

### **Objective 3.3**

MSTs' FY 2025 SDRD portfolio funded 32 exploratory research projects, including 11 new starts, and one Strategic Initiative focused on training future Scorpius scientists and enhancing existing staff capabilities executing accelerator beam physics and target interactions. An MSTs researcher was awarded the Presidential Early Career Award for Scientists and Engineers, bestowed by the U.S. government on scientists and engineers who demonstrate exceptional innovation and leadership, for developing next-generation detectors for Stockpile Stewardship applications. MSTs was also awarded an FY 2025 Laboratory Directed Research and Development Interlaboratory project in partnership with LANL and Sandia National Laboratories (SNL) for Portable High-Resolution MeV Neutron and X-Ray Radiography. MSTs completed prototype equipment capable of leveraging machine learning to streamline counterterrorism and counterproliferation search missions.

### **Objective 3.4**

MSTs demonstrated exceptional commitment to fostering and strengthening university partnerships that enhance technical workforce competencies and support NNSA mission needs. MSTs was nominated as a 2025 Distinguished Engineering Industry and Community Partner by the University of Nevada, Las Vegas (UNLV) and was inducted into the Howard R. Hughes College of Engineering for outstanding contributions. MSTs was also appointed to the College of Engineering Board of Advisors at both UNLV and the University of Nevada, Reno. MSTs leadership and technical staff collaborated with the Colorado School of Mines to build a partnership focused on a skilled workforce to meet future demands. MSTs strengthened its research environment with five additional Distinguished Members of the Technical Staff, recognized nationally and respected by the NWL for their leadership and subject matter expertise. MSTs launched the Bruno Rossi Distinguished Postdoctoral Fellowship to attract expertise critical to accomplishing NNSA mission priorities, specifically electron beam-target interactions in preparation for Scorpius' post-commissioning efforts. MSTs developed an AI/ML training monthly symposia to develop the technical workforce and improve scientific workflows.

### **Objective 3.5**

MSTs advanced transfer of intellectual property generated through R&D to industry, yielding 21 records of invention, one patent, 12 CRADAs, and three licenses, including commercial agreements for low-cost gas imaging, gas effluent target bags, and low-profile end-tidal carbon dioxide detection technologies. MSTs received the DOE Office of Technology Commercialization (OTC) award for Excellence in Tech Transfer at Single-Purpose Labs, Plants, and Facilities. Additionally, MSTs was selected by DOE OTC as the project lead for an enterprise partnership, marking the first time a site led such a project and NNSA's first co-investment in a DOE OTC Technology Commercialization Fund project.

### Objective 3.6

MSTS effectively supported the national security complex and the Department's legacy waste cleanup mission through the safe and secure operation of the Radioactive Waste Management Complex (RWMC). In FY 2025, MSTS' operation of the RWMC culminated in the compliant disposal of approximately 800,000 cubic feet. MSTS also enabled the fulfillment of regulatory commitments through their support of significantly increased real-time radiography (RTR) sessions and the timely acquisition/set-up of the enhanced RTR with implementation on track for early FY 2026. As part of the ongoing focus on cell closure and post-closure maintenance, MSTS completed revegetation seeding on three closed disposal units.

MSTS provided exceptional contributions to the DOE Office of Environmental Management (DOE-EM) restoration activities at the NNSS through coordination with the DOE-EM Nevada contractor providing prompt document reviews, and performance of infrastructure work at two NNSS locations. MSTS provided timely performance of waste characterization, packaging, shipment, and disposal of hazardous and mixed waste. MSTS also aided the DOE-EM Nevada contractor in the drilling of three groundwater wells providing effective and efficient infrastructure performance of sanitary waste transport and disposal, transportation of materials, and water and cement delivery.

### Goal 4: Mission Enablement

Amount of At-Risk Fee Allocation: \$5,743,511

### Goal 4 Summary

MSTS earned a rating of Very Good, and 85 percent of the award fee allocated to this Goal. MSTS 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

MSTS improved mission enablement in the areas of Environment, Safety, Health, and Quality management. MSTS achieved Total Recordable Incident and Days Away, Restricted and Transfer rates below DOE, NNSA, and significantly below industry rates amidst increased work and maintained a Voluntary Protection Programs Superior Star Award.

MSTS embraced regulatory reform by implementing the Occupational Safety and Health Administration (OSHA) OSHA+ model for construction and maintenance subcontracts and providing actionable proposals. Leveraging Safety Performance Objectives, Measures, and Commitments data, MSTS developed safety culture enhancements including "Mission Ready," "All-In," and "Craft Voice in Safety." Despite these efforts, two significant near-miss incidents occurred: an unauthorized firearm discharge and a failed pre-radiography personnel sweep. MSTS leadership immediately engaged, providing resources to assess and develop corrective actions, which, while positive, revealed workforce complacency and administrative safety control breakdowns. Housekeeping at the PULSE and P-Tunnel facilities significantly improved due to increased senior director involvement, leading to proactive identification and rectification of issues. Continued senior leadership and line management engagement are crucial to sustain effective corrective actions.

Criticality safety, industrial hygiene, worker safety, quality, wildland fire planning, radiation protection, aviation safety, and most enabling functions met expectations. MSTS achieved DOELAP accreditation for the Landauer InLight OSL dosimeter system, the first and only implemented site within the DOE complex. MSTS received the 2024 DOE Aviation Safety Professional of the Year. MSTS completed all corrective actions to address weaknesses in software quality assurance documentation and

implementation previously identified. MSTS addressed the overall fire protection strategy for underground complex facilities through the development of updated fire protection program documentation, fire modeling, and prioritization of backfit analyses issues based on risk and level of consequence. An exemption request was submitted for PULSE and favorably reviewed by DOE/EHSS and NNSA General Counsel. Continued MSTS leadership focus is required to close the remaining backfit analysis issues for all NNSA active underground facilities.

The quality of MSTS safety basis submittals continued to be a challenge. Simple deliverables improved and typically met expectations; however, improvement in complex deliverables has not been fully demonstrated. Partnering meetings between MSTS and the Nevada Field Office enabled timely comment/issue resolution. The Nevada Capabilities Documented Safety Analysis (DSA) was a successful first-of-kind analysis, but the final product required a directive-action Condition of Approval to address analytical deficiencies. Focused attention and a rigorous internal review process are essential to successfully complete future Preliminary DSAs for major projects at PULSE, and the Device Assembly Facility (DAF) DSA Rewrite Project.

Performance weaknesses in waste characterization and waste handling increased environmental compliance regulatory risk. Two events at the Area 9 Solid Waste Disposal Site resulted in a warning letter and increased regulatory inspections from the State of Nevada.

#### **Objective 4.2**

MSTS delivered an overall effective, efficient, and responsive safeguards and security program. MSTS received an interim Authority to Operate for the Counter-Unmanned Aerial System (C-UAS), equipping the Protective Force (PF) with a tool to mitigate threats of unmanned aircraft systems. MSTS developed and implemented an integrated Security and Emergency Management (EM) performance testing program, a first in NNSA and deemed a best practice. The MSTS PF Training Academy had two events that demonstrated a lack of formality of operations and a breakdown of several layers of administrative controls designed to prevent these types of incidents. MSTS revamped its program planning and budget documentation, significantly improving quality and effectively incorporating risk management opportunities. The MSTS Integrated Priority List is the NNSA model for Future-Years Nuclear Security Program deliverables and MSTS leads the NNSA in implementation of the Security Risk Management Framework.

#### **Objective 4.3**

MSTS demonstrated effective financial management operations and systems throughout FY 2025, consistently meeting expectations and delivering efficient and transparent services. MSTS executed the successful transition of Finance and Accounting systems from Oracle EBS to Oracle Fusion. This modernization effort presented stabilization challenges, but all key deliverables were met on time.

#### **Objective 4.4**

MSTS delivered satisfactory management of legal risk, incorporated best legal practices, and responded to FOIA requests in an acceptable manner.

#### **Objective 4.5**

MSTS delivered effective, efficient, secure, and responsive IT systems that support mission and functional area delivery while making improvements. MSTS met expectations for most of the Cybersecurity Program Execution Guide (PEG) Implementation Factors (IF) deliverables; exceeded expectations for cyber threat intelligence analysis and anti-phishing exercises; and made improvement in cybersecurity vulnerability compliance with a reduction in critical, high, and overall backlog vulnerabilities. MSTS integrated physical and cybersecurity requirements for the C-UAS allowing for a comprehensive security strategy. This integration was recognized as a best practice by the Office of Enterprise Assessments during a Cyber Security Assessment. MSTS met expectations for most of the

IT PEG IF deliverables. MSTS provided exceptional ECN exercise/real-world mission support and 24/7 Network Operations Center support to DOE/NNSA.

#### **Objective 4.6**

MSTS successfully completed required EM drills/exercises, including an integrated security Force-on-Force/full-scale exercise, and provided combined training for first responders and the Emergency Operations Center (EOC) cadre, including establishing an MSTS Senior Official emergency response billet, improving senior management involvement in EM responses. Through collaboration events, MSTS fostered critical networking and cooperation with external EM partners from Clark and Nye Counties, and the Southern Nevada Health Preparedness Council. MSTS completed the planned recapitalization of fire apparatus with six new fire engines and coordinated with the Nevada Test and Training Range (NTTR) for C-130 Aerial Spray to control the spread of invasive, highly flammable cheatgrass on the NNSS and adjoining NTTR.

Recent implementation of an updated EOC response plan caused significant confusion and weakened communication between federal senior officials, MSTS senior officials, and cadre leaders due to a poorly planned and executed rollout. This hampered the ability to establish a shared understanding of emergency situations and identify top response priorities. MSTS leadership engagement is required to improve performance and resolve these communication issues.

#### **Objective 4.7**

MSTS delivered effective business operations and systems. Through collaboration with NNSA, MSTS revised its procurement procedures aimed at driving consistency and improving timelines to deliver NNSA's mission faster. MSTS revamped its Acquisition Hub site to improve documentation quality and customer education, and mitigated P-Card program risk by increasing controls and transaction oversight. MSTS exceeded its best-in-the complex small business goal by 15 percent to include all socio-economic goals. MSTS delivered an effective personal property system, with high accountability on precious metals, database integrity, and warehouse cycle, and executed effective recruiting and retention operations.

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

Amount of At-Risk Fee Allocation: \$5,743,511

#### **Goal 5 Summary**

MSTS earned a rating of Excellent, and 91 percent of the award fee allocated to this Goal. MSTS 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 5.1**

MSTS significantly improved integrated planning and prioritization of construction projects for NNSA programs and NNSS user organizations through a continuous improvement culture. Reorganizing its infrastructure directorate, MSTS enhanced cost estimating in planning and development. Integrated planning sessions facilitated communication with stakeholders, informing future requirements and enabling infrastructure. MSTS developed and published three new complex area plans, updated two others, revised NNSA Master Asset Plans for NNSS, and initiated new complex area plans for three NNSS facilities to accelerate mission delivery. This strategic alignment with the Enterprise Blueprint and Build SMART initiatives supports new stockpile certification capabilities, site maintenance, and modernization, all aligned with NNSA priorities.

MSTS successfully advanced planning efforts in support of key infrastructure modernization projects. For the Glove Box Enhanced Capabilities (GBEC) project, MSTS, in collaboration with mission partners, completed the safety design strategy; functional requirements document; 30 percent conceptual design; preliminary risk register, infrastructure utility matrix, work breakdown structure, Class 3 estimate, and a quality assurance integration plan. The GBEC project is instrumental to pit surveillance activities for the Life Extension Program.

MSTS also led construction management for the Security Infrastructure Revitalization Program Perimeter Intrusion Detection and Assessment System project, seamlessly integrating across NNSA to enable alignment between project execution and program commitments. MSTS partnered with multiple stakeholders to develop an alternative approach to NNSA implementation of the advanced system and provided a streamlined structure optimizing project execution, management, and stakeholder reporting.

## **Objective 5.2**

MSTS significantly advanced its recapitalization portfolio, completing projects on schedule and within budget while delivering quality reports. This included executing infrastructure and mission-critical facility projects to enhance safety, reduce risk, and improve site user services. MSTS also effectively managed indirect institutional investments, modernizing and sustaining assets, thereby mitigating risks and lowering operational costs. Furthermore, MSTS managed real estate for all NNSA and satellite locations, strategically acquiring additional space for new and expanding mission needs.

MSTS achieved beneficial occupancy for the DAF Operations Support Facility in FY 2025, remaining significantly under budget (approximately \$4 million (M)). MSTS delivered the Operations Complex Utilities Installation project significantly ahead of schedule (five months) and under budget (\$2.4M). MSTS completed construction of the ESP Deployment Project allowing nuclear facility operational readiness activities to commence, with progress toward achievement of startup authorization, to enable advanced receiving and material staging at DAF. MSTS continued surface infrastructure upgrades at PULSE to meet increasing operations and mission demands, including construction and beneficial occupancy of a new Operations Support Facility and completion of parking and paving upgrades. PULSE recapitalization projects improved underground worker safety with completion of the U1a and U1g Ventilation Upgrade, mobilization of the 02b Refuge Station, and advancement of the Fire Detection and Alarm System Upgrade project.

MSTS advanced projects to ensure reliable water and power for the enduring NNSA mission. Improvements included upgrading the Area 6 CP Hill to Fire Station Junction Water Line and replacing the Tweezer Substation's 28-year-old, 12.5 MVA transformer and associated equipment. MSTS achieved an Issued for Construction design for the Mercury Solar Photovoltaic Project, an alternative to commercial power. The successful disposition program continued, completing demolition activities on schedule and within budget.

MSTS' implementation of NNSA directed scope changes, and broader facility and market conditions impacted MSTS' ability to execute the large capital projects in full accordance with cost, scope, and schedule baseline. MSTS has monitored and reported project performance against baselines; provided accurate and timely deviations on performance to stakeholders; and utilized appropriate risk management processes.

MSTS proposed, obtained approval, and implemented a revised PULSE underground fire protection strategy, including active/passive controls and new egresses. This strategy was briefed to NNSA leadership and changes approved by the Federal Project Director, halting Fire Extinguishing System (FES) design/installation, and pivoting toward development of a FES exemption. MSTS provided excellent support developing the alternate strategy and exemption submittal, which resulted in significant cost savings to the project (\$20M). MSTS implemented the new strategy, managed

associated challenges, maintained the U1a Complex Enhancement Project (UCEP) CD-4 date, returned contingency, and improved safety, cost, and operational posture.

The ASD Project is slightly over budget with a Cost Performance Index (CPI) of 0.95 and behind schedule with a Schedule Performance Index (SPI) of 0.83 for FY 2025. Schedule delays were predominantly associated with partner delays in hardware and supplier delays. MSTs completed Integrated Test Stand Dirty work, a major milestone that enables assembly of the injector. Eight of nine injector modules were received and MSTs worked with SNL to install, fill the modules with oil, and begin alignment/testing of each module. MSTs' timely discovery of two critical issues related to design and manufacture of components of the injector modules provided significant cost and schedule avoidance for future testbed installation.

The UCEP baseline was reset with the approval of the baseline change proposal (BCP) in January. UCEP was slightly over budget with a CPI of 0.91 and behind schedule with an SPI of 0.81 for FY 2025. Schedule delays were associated with equipment delivery and subcontractor construction activities. MSTs completed several activities to support UCEP infrastructure installation milestones for underground site preparation, surface site preparation, and underground construction. MSTs was still able to achieve CD-4 completion ahead of schedule despite initial challenges, and ensured UCEP continued to meet critical milestones for ASD's installation activities.

The ZEUS Test Bed Facilities Improvement (ZTBFI) project, subproject 010 is under budget with a CPI of 1.31 and behind schedule with an SPI of 0.87 for FY 2025. ZTBFI subproject 020 is over budget with a CPI of 0.55 and on schedule with an SPI 0.99 for FY 2025. Development of ZTBFI 020 performance baseline for CD-2/3 was delayed by four months incurring additional project management and engineering support costs. MSTs Cost Performance Reports were inadequate for both subprojects, however performance has improved substantially. MSTs completed several activities for ZTBFI Subproject 010 and 020 including a BCP and Independent Cost Review to transfer scope from Subproject 020 to 010, allowing critical mining activities to continue. MSTs also completed several design packages and completed the Project Definition Rating Index, Preliminary Documented Safety Analysis, and Draft Project Execution Plan. MSTs managed multiple execution challenges with ZTBFI, successfully mitigating many of these challenges and ensuring completion milestones remain unchanged.

The PULSE New Access Project was under budget with a CPI of 1.12 and ahead of schedule with a SPI of 1.02 for FY2025. MSTs successfully developed CD-1 documentation and established outstanding communication through weekly meetings with the Federal Project Director, bi-weekly meetings with the Office of Infrastructure program manager, and monthly Integrated Project Team meetings with all stakeholders. MSTs successfully completed all Conceptual Design Reviews, resolved all comments, and received the 100 percent Conceptual Design package, remaining on schedule toward achieving approval of CD-1. MSTs also collaborated to achieve concurrence on the Safety Design Strategy, a key component to ensure alignment with NNSA expectations.

### **Objective 5.3**

MSTs successfully executed the program of record, aligning Operations and Maintenance strategies towards multiple experimental programs and ensuring reliable facilities for enduring mission demands. Significant Operations, Maintenance, and Repair program activities improved workforce safety, productivity, and mission facility reliability, including PULSE legacy shotcrete remediation, U1h-hoist repair, new ventilation and power systems, and testbed upgrades. MSTs transitioned to a diversified mission support posture, expanding two-shift operations at PULSE and positioning the site for full-scale operation with three concurrent testbeds, increased maintenance, and ongoing construction. MSTs also successfully executed corrective maintenance at DAF, including vital life safety system upgrades and space/equipment modifications, directly supporting Stockpile Stewardship missions and implementing the ESP Deployment Rack bunker for the pit production mission. Key facility projects at

JASPER and HE Facilities ensured water reliability and power redundancy for Stockpile Stewardship and Weapons Disposition and Dismantlement missions.

MSTS significantly improved corrective maintenance across power, water, roads, and telecommunications, anticipating per-unit cost reductions and accelerating execution. Power infrastructure advanced with the NNS Power Initiative completion, centralized Area 25 distribution, and 90 percent microgrid design for the mission power sustainment and resiliency project. Water management included planning the Mission Corridor Well Rehabilitation Subcontract, completing J-12 Well repairs, and issuing the first 5-Year Tank Refurbishments Request For Proposal. MSTS enhanced in-house road maintenance capabilities through new equipment acquisitions, allowing for refined subcontracted scope, maximized execution, and minimized costs, resulting in surfacing/chip-sealing 57 miles of NNS roadways and repairing four helipads. Telecommunications upgrades accelerated with prioritized future projects and procurement for remote communication shelter and equipment replacement.

MSTS ensured safe and efficient mission execution through comprehensive maintenance and modernization, sustaining facility reliability and extending asset life. Key efforts included installing a J Borehole maintenance track integrated with utility lines and leveraging software for enhanced asset tracking. Modernization initiatives encompassed historical building roof restoration, planning for legacy suppression system removal (hazardous waste), comprehensive facility improvements, and future growth upgrades. MSTS developed master task order agreements and streamlined design specifications, accelerating planning for new facilities and creating a standardized framework for rapid subcontractor engagement, optimized acquisition, and faster construction.

The MSTS CBI Program provided state-of-the-art equipment and modernized facilities, enabling enduring capabilities for NNSA mission priorities. These efforts included procuring a trailer-mounted mine rescue hoist (emergency backup for U1a/U1h hoists); installing a new Multi-Axis Lathe (precision custom machined parts for mission facilities and SCE); establishing a Mission Control Center via the Diagnostics Control Connectivity project (monitoring/control of SCEs from the surface); and procuring three state-of-the-art Tektronix scopes for the PULSE Testbed Diagnostics Upgrade Project.

## **Goal 6: Mission Leadership**

Amount of At-Risk Fee Allocation: \$5,743,511

### **Goal 6 Summary**

MSTS earned a rating of Excellent, and 91 percent of the award fee allocated to this Goal. MSTS 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 6.1**

MSTS leadership collaborated with NNSA, National Laboratories, and other government sponsors to strategize and execute missions at the NNS more efficiently. They documented a strategic vision for the NNS, emphasizing integrated efforts with stakeholders and Strategic Partnership Projects customers, and detailing infrastructure and technology investments for future missions. To enhance strategic execution, MSTS used indirect investments to mitigate operational risks and fund initiatives that build future NNS capabilities. Business systems were modernized through Oracle Fusion and cloud migration; despite initial issues, these were resolved to ensure mission continuity. MSTS leadership also continued to develop its Accelerate Program, engaging employees with the NNS strategic vision and empowering their involvement in NNS missions.

MSTS leadership created a technology roadmap for the Global Security and Science and Technology directorates. This roadmap outlines innovation plans, aligns program teams, and funds milestones to efficiently deploy technology for future missions. Additionally, MSTS developed and began implementing a Special Technologies Growth Plan to adapt to future demands and improve mission delivery.

### **Objective 6.2**

MSTS CAS performance and implementation continued to improve and mature. MSTS implemented institutionalized improvements to the CAS trending and analysis processes resulting in an improved culture of critical self-assessments, transparency, and accountability. MSTS collaborated with Pantex and Lawrence Livermore National Laboratory to develop a new Management Assessment training, including best practices from across the NSE.

MSTS leadership recognized the need for enhanced integration across CAS elements and elevated CAS analysis and assessment to the MSTS President's office. MSTS increased performance of self-assessments by 44 percent from the previous FY, demonstrating commitment to a self-critical and transparent culture resulting in fewer overall issues and fewer adverse conditions. MSTS leadership included satellite locations when evaluating safety program efficacy and used parent company reach back to provide oversight and governance to the CAS organization.

### **Objective 6.3**

MSTS collaborated with NSE laboratories, plants, and sites (LPS) to support mission planning, resolve issues, and streamline communications with NNSA. They actively participated in the Energy Facility Contractors Group and various NSE working groups, sharing best practices in risk and transformation. MSTS, in partnership with Kansas City National Security Complex (KCNSC) and Y-12 National Security Complex (Y-12), secured a DOE Office of Technology Commercialization FY 2025 Technology Commercialization Fund award for the BUILTT project, which aims to reduce costs for DOE LPS through TT. MSTS also received the DOE TT Working Group's "Excellence in Technology Transfer at Single-Purpose Laboratories, Plants, and Facilities" award for its impactful TT efforts.

MSTS championed HADES technology integration into NNSC security infrastructure, partnering with SNL and the Office of Defense Nuclear Security on the Security Infrastructure Revitalization Program. They extended Tactical Response Force 1 training to KCNSC personnel, maintained leadership in the Nuclear Security Information Exchange, and initiated threat analysis briefings for the Senior Advisory Group of Executives. MSTS Security is recognized as a leader in Security Risk Management Framework implementation, Integrated Priority List development for Program Planning, Budget, & Evaluation, and enhanced Security and Emergency Management integration.

### **Objective 6.4**

MSTS reorganized key personnel to better align with mission needs, flattening the structure to establish two Vice President positions filled by highly competent and experienced individuals approved through the NNSA key personnel process. This improved internal and external transparent communication, leading to more effective and integrated mission execution across MSTS and with NWL partners. MSTS streamlined work planning organizations to enhance leadership's resource management, reducing delays and improving execution. MSTS leadership prioritized employee engagement as key to driving organizational change and aligning the workforce with the NNSC mission. Increased participation in engagement surveys, particularly among bargaining employees, and the introduction of workforce chats with senior leadership reflect this focus.

MSTS leadership proactively identified twenty cost-saving initiatives to increase the amount of mission work delivered with a 17 percent impact on the total FY 2025 annual budget. Compared to a 2017 baseline, these initiatives yielded results of 116 percent direct workload increase with a 24 percent

reduction to the indirect cost ratio (cost of work performed). MSTS leadership consistently championed indirect investment projects to reduce costs and execution risk for NNSS construction and mission execution projects. Utilizing a formalized, repeatable process for investments, MSTS enabled future PULSE J Borehole access and maintenance, procured equipment for modernization, refreshed equipment at satellite locations, and enhanced security at the North Las Vegas and NNSS facilities.

### **Objective 6.5**

MSTS leadership successfully delivered, performing in three separate SCE series, and nuclear, and high-hazard experiments across all NSE laboratories and the NNSS. MSTS designed, developed, and tested cutting-edge diagnostics for improved data collection systems, continuously improved nuclear and high-hazard testbeds, and responded to real-world events. To enhance interfaces with NWL, NNSA leadership, and political stakeholders, MSTS proactively restructured its executive leadership team, streamlining efforts among Vice Presidents reporting directly to the President, fostering focused engagement and closer connection to mission execution. The initiative yielded positive results in FY 2025, with increased stakeholder engagement, improved project performance, and enhanced mission delivery.

MSTS maintained increased leadership presence and engagement in the field, used safety standdowns, and had a deliberate approach to operations, resulting in positive impacts and reduction of operational upsets. MSTS evaluated Safety Management Programs and functional areas for all NNSS locations, implemented abnormal event guidance to allow for faster return to operations, modified pre-job briefings to increase focus on daily work activities, and expanded standardized work authorization/work release processes across the NNSS.

### **Objective 6.6**

MSTS effectively leveraged parent company reach-back for critical, under-resourced skills in areas such as safety, mining, design engineering, construction technical expertise, engineering support, and project management, notably utilizing an Underground Safety Manager to address construction safety concerns. These decisive actions, backed by strong corporate support, contributed to mission success. MSTS maintained a low voluntary turnover rate (8.3 percent), actively recruited new employees, and ran a successful Student Intern Program with 73 participants, six of whom became full-time employees.

MSTS partnered with universities, providing funding for research, scholarships, and STEM programs to attract and recruit talent for NSE missions. MSTS engaged in extensive community outreach, hosting three STEM Saturdays and seven Atomic Museum field trips, sharing the NNSS history and mission with 500+ Clark County students; sponsored the Nevada Science Bowl, and assisted the Governor's Office of Science, Innovation, and Technology with site visits to boost STEM interest and achievement.

## **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 maintain confidence in the nuclear stockpile without additional nuclear explosive testing by developing diagnostics and executing technical operations on the NNSS to aid in the design, certification and assessment of current and future weapon systems, processes, and components.

### **Objective 1.2**

Work as a team across the Nuclear Security Enterprise to plan and execute production sustainment and integration, nuclear enterprise assurance, 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.

### **K.O. 1.1**

Provide the necessary facilities, diagnostic capabilities, and personnel to execute the Nob Hill subcritical experiment on or before June 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**

Complete Phase II mining for Low Yield Nuclear Monitoring (LYNM) Physics Experiment 1 (PE-1) on or before August 1, 2025.

**Key Outcome 2.2**

Design and document the implementation of a single Common Operating Picture platform for interagency preventative radiological detection missions enabling awareness, assessment, effective response to radiation detection events originating from DOE, interagency, state, and local partner detection systems and provide support and expertise to help build international and domestic partner capacity in emergency preparedness and response by executing at least 90% of assigned capacity building engagements on or before 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 Site Directed Research and Development (SDRD) 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., SDRD) with the NNSS' strategy and supports DOE/NNSA priorities.

**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 NNSS' 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 NNSS 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 site 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 MSTs' 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 NNSS and the Enterprise.

### **Objective 6.1**

Define and implement a realistic strategic vision for the NNSS, 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 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.