



National Nuclear Security Administration

Lawrence Livermore National Security,
LLC

Performance Evaluation Report

Contract No. DE-AC52-07NA27344

Livermore Field Office

Evaluation Period:

October 1, 2024, through September 30,
2025

December 12, 2025

Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration's (NNSA) assessment of the performing entity, Lawrence Livermore National Security, LLC's (LLNS), performance of the contract requirements for the period of 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 LLNS' 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 (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.” In accordance with the regulation, the PER assesses LLNS's performance against the PEMP and provides the basis for determining the amount of award fee earned by LLNS. 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).

LLNS earned an overall rating of Excellent and 91 percent of the award fee during this performance period. LLNS earned Excellent ratings for Goals 1, 2, 3, and 6 and Very Good for Goals 4 and 5. Specific observations for each Goal are discussed in the following pages.

LLNS transitioned El Capitan to the classified network and in September 2025, El Capitan entered production status as LLNS's flagship system under Advanced Technology Computing Campaign. El Capitan has been designated as the most powerful supercomputer in the world. The National Ignition Facility (NIF) executed a successful ignition experiment that set a new yield record delivering 8.6 megajoules (MJ) from 2.05 MJ of energy (Goal 1).

LLNS provided expertise to an International Atomic Energy Agency course on developing nuclear security regulations and continues to provide outstanding support and coordination for high visibility international exercises (Goal 2).

LLNS researchers, BridgeBio Oncology Therapeutics, and the National Cancer Institute have developed a promising cancer drug candidate using supercomputing and artificial intelligence. Laboratory tests show that the drug effectively blocks tumor growth without causing side effects common to many cancer treatments (Goal 3).

LLNS's Cybersecurity Program completed its self-assessment for the applicable Focus Areas of the Multi-Year Cybersecurity Program Execution Guidance which resulted in an evaluation of "exceeded expectations" by the Office of Information Management. LLNS was approved by the Livermore Field Office to conduct high temperature overnight furnace operations, saving thousands of man hours of work within the first three months. LLNS's Procurement exceeded all six small business goals. Some security issues exist, which LLNS must continue to resolve (Goal 4).

LLNS's National Security Innovation Center (NSIC) project successfully achieved Critical Decision (CD)-0. LLNS is currently managing 148 projects in active execution, design, procurement, construction, or demolition and completing 88 projects with a Total Projected Cost of \$222.3 million (M). Digital Infrastructure Capability Expansion is on target to beat baseline CD-4 by 3 months and under baseline budget by 6 percent (Goal 5).

LLNS executed a noncompetitive extension of Contract 44, enabling NNSA a posture to stagger M&O contract competitions every other year cadence to encourage robust industry participation. LLNS agreed to serve as the M&O lead for the Analytics Planning and Execution Center, which will serve as an enterprise resource and act as a force multiplier to explore new infrastructure concepts. LLNS received its 6th Glassdoor Employee's Choice Award recognizing the Best Places to Work in 2025 (Goal 6).

Goal 1: Mission Delivery: Nuclear Weapons

Amount of At-Risk Fee Allocation: \$20,432,348

Goal 1 Summary

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

LLNS provided knowledge, personnel, and capabilities to design, build, certify and assess current and future weapon systems, processes, and components. LLNS successfully provided technical support for headquarters activities that resulted in CD-0 approval, an Analysis of Alternatives (AoA) exemption, and project tailoring efforts for the NIF Enhanced Yield Capability (EYC) project. LLNS successfully produced and executed a NIF shot using a weapons grade plutonium sample, Nob Hill subcritical experiment, the second test of a new target design method on NIF to reduce mix and improve fusion yield, delivered the NIF time-resolved opacity spectrometer, and executed a (b) (7)(E), (b) (7)(F) (b) (7)(E), (b) (7)(F) experiment. These accomplishments supported the stockpile modernization program, provided new capabilities, set a record on NIF of 8.6MJ, and extended advances in (b) (7)(E), (b) (7)(F) assessments to enable identification and evaluation of off-nominal regimes in stockpile options.

LLNS successfully enabled the development of new and innovative materials, processes, and components to achieve higher technology and manufacturing readiness levels and rate production, while driving the state-of-the-art for science and technology. LLNS made progress on deploying a dedicated artificial intelligence (AI) system on the restricted zone network which will eventually transition to the classified network. LLNS improved and validated nuclear data from machine learning techniques integrated into material response and plasma models. LLNS continued to successfully develop quantification of plutonium equation of state uncertainty using NIF and Z experiments, which will add important depth in understanding experimental uncertainties. LLNS continued to make excellent progress in analyzing alternative insensitive high explosives (IHE) options. LLNS completed pressing and machining test articles for upcoming hydrodynamic tests in the first quarter of fiscal year (FY) 2026, (b) (7)(E), (b) (7)(F). LLNS leveraged machine learning that rapidly screens and develops energetic binder candidates (b) (7)(E), (b) (7)(F) for plastic-bonded explosives, that are necessary to meet evolving demands on binder performance. LLNS successfully fostered collaborative efforts across the nuclear security enterprise (NSE), contributing knowledge, personnel, and capabilities to accelerate technological and manufacturing readiness levels. LLNS effectively supported the Weapon Technology Manufacturing and Maturation and the Engineering and Integrated Assessments program, executing cutting-edge experiments and developing new components and materials. LLNS continued to make progress on (b) (7)(E), (b) (7)(F).

Objective 1.2

LLNS continued to support and enable the base capability for weapons programs with independent quality engineering, metrology engineering, and subject matter expertise for enterprise modeling and analysis. LLNS engaged in over 120 Product Realization Teams, leading to the review and/or release of 3,191 Engineering Authorizations and the conduct of 70 Engineering Evaluations across NSE production agencies (PA). LLNS completed nine Qualification and Engineering Releases in support of pit production. LLNS also conducted strategic equipment upgrades for on-site facilities while facing

facility support staff delays. LLNS implemented a corrective action plan to address findings from an NNSA-led Quality Assurance Survey-1 within established timelines. LLNS Enterprise Modeling and Analysis Consortium made analytical and collaborative contributions to enterprise-wide security and planning. LLNS scientists completed operational technology assessments for the DNA Sequencer, High-Performance Computing infrastructure room, Thermal Mechanical Analysis equipment, and Environmental Shakers that help identify potential vulnerabilities.

Objective 1.3

LLNS consistently exceeded expectations in its assigned work to maintain the U.S. nuclear weapon stockpile. For the W87-0 program, LLNS completed instrumented tests to support Sentinel missile development activities and worked in concert with the Y-12 National Security Complex (Y-12) to achieve the first production unit of a (b) (7)(E), (b) (7)(F). This effort will ensure sufficient hardware availability to support future flight test qualifications for Sentinel and Minuteman III. Additionally, LLNS collaborated with the Kansas City National Security Campus (KCNSC), Pantex Plant (Pantex), Sandia National Laboratories (SNL), Savannah River Site (SRS), and Y-12 and completed a comprehensive stockpile extension report for W87-0, which is crucial for defining long-term life of program requirements. For the B83 program, LLNS completed Phase IV technical evaluation, which aimed to provide significant relief to processes at Pantex. The W80-1 team partnered with SNL-CA to develop requirements for new surveillance tests, which will reduce reliance on flight test data; actively engaged with the W80-4 program to plan for its transition to stockpile sustainment; and completed system level high explosive (HE) testing to help characterize performance for more accurate aging predictions. Furthermore, the LLNS surveillance team completed (b) (7)(E), (b) (7)(F) testing to ensure safe storage of pits at Pantex. LLNS successfully shipped legacy high explosives to the Nevada National Security Site (NNSS) to free up valuable storage for use with other weapons programs. Additionally, LLNS actively participated and led key digital engineering initiatives supporting Product Realization Integrated Digital Enterprise (PRIDE) milestones through integration of 14 new data sources into the classified network.

Objective 1.4

The LLNS W80-4 Program demonstrated excellent technical performance and teaming to support on-time First Production Unit (FPU) delivery. LLNS, in collaboration with PA partners, achieved FPU for the W80-4 (b) (7)(E), (b) (7)(F) Subassembly. LLNS successfully completed all path 2 testing and close cross-site teaming enabled an on-time design down-select in support of W80-4, and two joint development flight tests completed successfully with the National Technology and Engineering Solutions of Sandia, LLC (NTESS) and the US Air Force. W80-4 readiness for production and certification has improved rapidly including Qualification Engineering Releases for multiple products and component FPUs. System Thermal Mechanical Testing successfully completed the full lifetime of Stockpile to Target Sequence thermal test exposure. The Full System Engineering Test was completed this fiscal year, demonstrating successful performance of PA-produced hardware for all components. LLNS also successfully fired two Integrated Weapon Experiments (IWE) containing many final-design components at Contained Firing Facility. (b) (7)(E), (b) (7)(F)

(b) (7)(E), (b) (7)(F) LLNS' W87-1 program continues to advance within Phase 6.3, and all LLNS components are on a path to FPU well in advance of its need date to support the current system FPU. LLNS's quick pivot to integrate with Rocket System Launch Program (RSLP) enabled an alternative to delayed Sentinel flights. In addition, LLNS built hardware for and designed two risk mitigation ground tests to further reduce program risk. LLNS successfully completed a key Stockpile to Target Sequence (STS) test providing confidence in the design; however, LLNS's conservative approach to testing for the W87-1 STS could lead to cost impacts and should be carefully reviewed. LLNS's close collaboration with Consolidated Nuclear Security, LLC (CNS) enabled relaxation of a challenging production spec and alleviated risk to W87-1

program schedule. LLNS worked with PA partners to ensure most component FPU's will begin production early, to take advantage of available throughput at the plants and minimize the overlap with other systems. LLNS worked a wide variety of supply chain mitigations to maintain schedules, including assessing suitability of legacy material, onboarding new suppliers for the complex, assessing and supporting new production methods, and working to increase efficiency of production. LLNS also provided exceptional support to Nuclear-Armed Sea-Launched Cruise Missile-Nuclear (SLCM-N) for the Phase 6.2/6.2A Study Report.

Objective 1.5

LLNS successfully led the Pit Product Realization Team (PRT) and managed a challenging operational tempo of activities at Superblock, supported advancement of radiation cases, and supported insensitive high explosive binder production needs. LLNS continued to be an excellent partner in maturing the next generation of NNSA's secondary stage production capabilities. LLNS involvement in the Microwave Readiness and Integration Team (MRIT) significantly improved DA and PA understanding of electric field behavior and microwave absorption physics in the furnace cavity. LLNS produced considerable advancements in (b) (7)(E), (b) (7)(F) by standardizing novel material characterization techniques and working with Y-12 to insert such techniques into production. LLNS made excellent progress on the manufacturing process and process optimization for alternate alloy component production. LLNS evaluated alternative binders for manufacturing IHE and collaborated with Pantex to address supply chain challenges and enhance the production of high explosives. By diversifying manufacturing approaches, the team developed methods to improve reproducibility, increase yield, and build resilience in the production process and worked with KCNSC to identify (b) (7)(E), (b) (7)(F) (b) (7)(E), (b) (7)(F) bulk buys for other product lines.

Objective 1.6

LLNS led the NSE-wide information technology (IT) infrastructure planning, ensuring the digital thread has the necessary understanding it needs for IT infrastructure across the enterprise. This was accomplished by supporting the Digital Transformation Senior Steering Group. Livermore Computing implemented new capabilities for outside enclaves to access high-performance computing resources. LLNS committed to using the enterprise digital thread in all applicable programs by executing existing scope using digital workflows and expanded capabilities in the areas of digital twin and digital reasoning. Significant progress was made in demonstrating the digital thread within the Polymer Enclave, including a LLNS led project with KCNSC to demonstrate a prototype for the full digital thread that will be applied in the future with KCNSC on production agency produced parts utilizing the Enterprise Security Network (ESN) hub.

Key Outcome 1.1

El Capitan was accepted in October 2024 and quickly made available for tri-lab teams to port unclassified libraries, codes, and workflows while continuing to stabilize the system with vendor partners. In November 2024 and June 2025, it was named the most powerful supercomputer on the TOP500 list. By March 2025, El Capitan transitioned to the classified network as planned, and in September 2025, El Capitan entered production status as LLNS' flagship system under the Advanced Technology Computing Campaign.

Goal 2: Mission Delivery: Global Nuclear Security

Amount of At-Risk Fee Allocation: \$5,108,087

Goal 2 Summary

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

LLNS provided key technical expertise to a range of nuclear and radiological security and nuclear forensics exchanges and training, including an International Atomic Energy Agency (IAEA) course on developing nuclear security regulations. LLNS delivered excellent support on nuclear and radiological security upgrade projects in Europe, the Middle East, and Africa, and continued to make progress in establishing new partnerships and promoting the replacement of high-activity radioactive sources with non-radio isotropic alternatives in support of NNSA mission priority.

Objective 2.2

LLNS delivered outstanding project management performance as the lead for the Low Yield Nuclear Monitoring venture and the Tritium Detection and Evaluation for Nuclear Threats venture. LLNS was part of a tri-lab team that received a Secretary of Energy's Achievement Award for its support in space-based nuclear detonation detection. LLNS published a paper performance of a novel plastic scintillator material and received final delivery of scintillator bars produced by a commercial partner to support demonstration of reactor monitoring with antineutrino detection. Furthermore, LLNS advanced data science applications for nonproliferation including increasing a model's predictive fidelity by improving and validating its uncertainty quantification and demonstrating the use of a foundation model to integrate imagery information into a knowledge graph.

Objective 2.3

LLNS was not tasked or funded to support this Objective.

Objective 2.4

LLNS continued to provide significant technical support in completing and transferring two safeguards technologies to IAEA. As an IAEA Network of Analytical Laboratory facility, LLNS provided essential and timely analysis of environmental samples. As an Organization for the Prohibition of Chemical Weapons designated laboratory, LLNS received an "A" grade on both of its environmental and biomedical proficiency tests. LLNS continued to provide integral support to the 10 Code of Federal Regulations (CFR) Part 810 program in the form of end-user reviews concerning proposed transfers of unclassified U.S. nuclear technology to foreign entities and by developing and enhancing the next generation e810 system.

Objective 2.5

LLNS provided key expertise in supporting a multitude of international counterterrorism and counterproliferation priorities, including maintaining the International eXchange Program, supporting a Norway project and training in Greece, and hosting both the U.S.-Republic of Korea Nuclear Security Working Group and the Joint Steering Committee on Civil Nuclear Cooperation with Taiwan. LLNS maintained operational readiness and successfully participated in key Nuclear Emergency Support Team (NEST) exercises, including Diamond Thunder, Cobalt Magnet, Epic Shadow, Emerald Raptor, and Prominent Hunt, and provided excellent NEST operational support including the Rose Bowl and

Presidential Inauguration. LLNS continued to deliver exceptionally on quick-turnaround, short-term requests in support of nuclear security priorities in Eastern Europe.

LLNS continued to build local and state partners' capability to respond to nuclear incidents by providing key expertise and support for a NEST Standards and Training Program course and for the Silent Thunder exercise program. LLNS completed critical and timely assessments of material attractiveness and provided excellent technical support and coordination to the Office of Nuclear Incident Response in the planning and preparation for a high-visibility challenge exercise with international partners. LLNS subject matter experts helped shape a methodology that has transformed NNSA's understanding of AI-related risks and in identifying pathways for the broader US Government to adopt and integrate AI/ Large Language Model technologies.

Key Outcome 2.1

LLNS successfully accomplished its key outcome of target fabrication and completing hydrodynamic experiments as well as designing and building training aids. LLNS demonstrated remarkable leadership, planning, and teamwork in a high-priority, multi-year integrated experiment campaign that has overcome challenges to maintain on schedule during this period and has achieved important milestones. Meanwhile, LLNS's training aid design, the first of its kind, will sufficiently challenge the capabilities of the exercise participants.

Goal 3: Mission Innovation: Advancing Science and Technology

Amount of At-Risk Fee Allocation: \$5,108,087

Goal 3 Summary

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

LLNS's institutional investments, including Laboratory Directed Research and Development (LDRD), produced high-impact, innovative results and capabilities that are aligned with LLNS and Department of Energy (DOE)/NNSA missions and elevated the caliber of the workforce. LLNS's research achieved excellence in core capabilities and produced new intellectual property resulting in high impact publications, enabled workforce development and staff retention, and expanded the frontiers of Science Technology and Engineering (ST&E).

Objective 3.2

LLNS continued to conduct research that is relevant, enables the national security mission, and benefits DOE/NNSA and the nation. LLNS scientists and engineers at NIF conducted nine successful fusion ignition experiments; the eighth resulted in the highest yield (8.6 MJ) and the highest output reached using only 2.08 MJ of laser energy. LLNS, in collaboration with NNSA, Hewlett Packard Enterprise, and Advanced Micro Devices, officially unveiled El Capitan as the world's most powerful supercomputer and first exascale system dedicated to national security. El Capitan is the fastest computing system ever benchmarked and is NNSA's first exascale supercomputer. El Capitan is a premier resource to advance nuclear weapon science and scientific discovery, providing the vast computational power necessary to ensure the safety, security and reliability of the nation's nuclear deterrent without nuclear testing.

Objective 3.3

LLNS researchers discovered a promising new treatment to counteract the effects of fentanyl and related opioids. The treatment is described in a paper published online in the American Chemical Society (ACS) journal, ACS Central Science. The fentanyl treatment discovered by LLNS scientists is subetadex, a compound developed more than two decades ago. The team discovered that when in vivo models were exposed to sub-lethal fentanyl doses, the recovery times were significantly faster when subetadex was administered. LLNS researchers developed a new method to print three-dimensional sturdy silicone structures that are bigger, taller, thinner and more porous. The two-part “fast cure” silicone-based ink for direct ink writing mixes just before printing and sets quickly at room temperature, allowing longer print times, simplifying the fabrication process, and ensuring structures will not collapse or sag, even in complex shapes and configurations. The research appears on the front cover of the October issue of Advanced Materials Technologies. To better understand laser–matter interactions with regard to ablation, researchers from LLNS, the University of California, San Diego, Stanford Linear Accelerator Center and other collaborating institutions conducted a study that represents the first example of using X-ray diffraction to make direct time-resolved measurements of an aluminum sample’s ablation depth. The research appears in Applied Physics Letters.

Objective 3.4

LLNS continued to excel in maintaining a vibrant research environment while nurturing a healthy workforce pipeline. LLNS’s director of the Jupiter Laser Facility was elected to serve as vice chair of the American Physical Society (APS) Division of Plasma Physics (DPP) Executive Committee. Three LLNS scientists were named 2024 APS Fellows. One was selected for “outstanding contributions to the understanding of the stagnation conditions required to achieve ignition.” A second was honored for “extensive contributions to inertial confinement fusion state-of-the-art implosion modeling, innovative ignition designs, novel applications of laser-plasma interactions, and the scientific understanding of hydrodynamic instabilities.” A third was selected for “pioneering dynamic ramp-compression experiments on high-energy laser facilities, resulting in significant discoveries in high-pressure materials physics and planetary science.”

Objective 3.5

LLNS successfully performed innovation and technology transfer to industry through partnerships that include both Cooperative Research and Development Agreement and licensing agreements. LLNS and BioVind, LLC achieved the exclusive licensing of a laboratory pathogen diagnostics technology focused on oil and gas applications. BioID, is a rapid and portable molecular diagnostics platform that can detect up to 18 target DNA or RNA sequences from a sample in 30 to 60 minutes. BioID uses an isothermal amplification technique to detect pathogen nucleic acid. While technology for detecting microorganisms and genomes is not new, BioID is the first adoption into a portable device that avoids the need for expensive machinery. LLNS’s researchers, BridgeBio Oncology Therapeutics, and the National Cancer Institute have developed a promising cancer drug candidate, BBO-8520, using supercomputing and artificial intelligence. The drug targets specific genetic mutations in KRAS proteins, which are implicated in about 30 percent of all cancers. Laboratory tests show BBO-8520 effectively blocks tumor growth without causing side effects common to many cancer treatments. LLNS continued to demonstrate a strong commitment to public access. Submissions of FY 2024-accepted manuscripts surpassed the target of 85 percent, and LLNS made excellent effort toward immediate access to scholarly publications by submitting FY 2025-accepted manuscripts within 90 days of publication.

Objective 3.6

Researchers from LLNS, Los Alamos National Laboratory (LANL), and SNL have unveiled a revolutionary approach to molecular dynamics simulations using the Cerebras Wafer-Scale Engine, the

world's largest computer chip. Running on the second-generation Cerebras WSE-2, teams and Cerebras Systems demonstrated that the chip could perform complex simulations involving hundreds of thousands of atoms at speeds previously thought unattainable. As described in a recent paper, the team achieved simulation timesteps at rates more than 450 times over other exascale systems such as Oak Ridge National Laboratory's Frontier. The work was a finalist for the 2024 Association for Computing Machinery Gordon Bell Prize, one of the highest honors in supercomputing. LLNS researchers and its academic partners have developed a groundbreaking technique that enhances the optical absorptivity of metal powders used in three-dimensional printing. The innovative approach, which involves creating nanoscale surface features on metal powders, promises to improve the efficiency and quality of printed metal parts, particularly for challenging materials like copper and tungsten. In a study published as the September cover of Science Advances, a team led by scientists from LLNS, Stanford University, and the University of Pennsylvania introduced a novel wet chemical etching process that modifies the surface of conventional metal powders. By creating nanoscale grooves and textures, the researchers reported the absorptivity of these powders went up to 70 percent, allowing for more effective energy transfer during the laser-melting process.

Goal 4: Mission Enablement

Amount of At-Risk Fee Allocation: \$7,662,130

Goal 4 Summary

LLNS earned a rating of Very Good, and 76 percent of the award fee allocated to this Goal. LLNS exceeded many of the 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

LLNS achieved a year-over-year reduction in injury and illness rates including a 3.9 percent reduction in Total Recordable Case rate, a significant reduction of 24.5 percent in the Day Away Restricted Time rate, and 28.4 percent in the Day Away Case rate. LLNS completed all 16 actions associated with the Environmental Safety and Health (ES&H) safety culture improvement and implementation of OSHA Plus. LLNS completed all 75 actions for the Hazardous Energy Control and Lockout/Tagout Corrective Action Plan. There were zero environmental violations in FY 2025. The LLNS Explosives Safety Program Office developed and received approval for three key Explosives Safety Site Plans. LLNS identified over 200 thermoluminescent dosimeters that were not returned between 2019 and 2025, which could result in inaccurate and incomplete radiation exposure records. LLNS was approved by the Livermore Field Office (LFO) to conduct high temperature overnight furnace operations as a Type 2 Standby Operation, saving 2,520 hours within the first 3 months.

LLNS developed a Plan of Action to disposition legacy transuranic (TRU) waste currently stored at LLNL through Idaho National Laboratory (INL) facilities and performed a waste optimization study to determine waste treatment recapitalization estimates. LLNS processed 26 TRU waste drums through the Centralized Waste Processing Line and shipped for disposal low-level waste received into the LLNL Waste Storage Facilities.

All nuclear materials management-related efforts proceeded within cost, scope, and schedule constraints. LLNS has implemented a new funding model to enable continued support of nuclear materials management activities. LLNS developed and hosted a multi-site DOE meeting to further define and advance glovebox removals for LLNL that also benefitted multiple NNSA sites. The meeting also resulted in a planned approach for removing and disposing of no longer needed gloveboxes across the department.

In late 2024, the DOE Office of Enforcement issued an Investigation Summary to LLNS regarding deficiencies in its implementation of the Department of Energy's 10 CFR Part 830, Subpart A, *Quality Assurance Requirements*. Since then, LLNS has made significant progress addressing legacy Quality Assurance (QA) and Software QA issues and implementation of new procedures.

Objective 4.2

The Safeguards and Security (S&S) Functional Area maintained a program focused on evaluating protection system effectiveness for essential elements of the core protection strategies and for Protective Force readiness, which enabled thorough analysis and risk-informed decision-making. S&S had notable issues in Security Organization (SO) Assurance, such as inconsistent analysis of recurring and systemic issues, prolonged corrective actions, and slow escalation of Incident of Security Concern (IOSC) have weakened SO's ability to detect and mitigate emerging risks. IOSC challenges are further compounded by data integrity issues such as record completeness and misalignments in the Issues Tracking System. Hiring restrictions in key assurance roles continue to hinder improvement and sustaining mission. S&S also had a high number of unresolved Personnel Security Deficiencies from FY 2023. These deficiencies within the Personnel Security Program stem from misalignment of security functions and are dependent on future planning documents and deliverables. Additionally, unresolved findings from FY 2024 Program Management Operations Survey require continued monitoring, validation and management attention to ensure full closure. Although LLNS has improved its Material Control and Accountability (MC&A) program management and successfully completed a recent inventory; issues continue to persist. However, LLNS needs to focus on completing MC&A Corrective Actions and full compliance with its MC&A Plan and DOE Order 474.2A implementation plan. LLNS solved training and equipment utilization deficiencies in collaboration with LivIT by successfully implementing a new iPad-based system for managing Security Police Officer fitness records using Microsoft Power Apps. This project was completed without additional costs, leveraging existing LLNL resources. The new system has modernized data entry, notifications, and recordkeeping, eliminating paper-based processes, reducing data errors, and resulting in an estimated annual savings of 200 hours and \$10,000, while also supporting federal electronic records initiatives.

Objective 4.3

LLNS collaborated with Savannah River Nuclear Solutions, LLC (SRNS) to demonstrate its process for reporting ES&H accounting liabilities. LLNS' willingness to demonstrate its accounting best practice in this area resulted in improved financial reporting for SRNS and time-saving efficiencies for NNSA. LLNS' consistently accurate cost plans improved the confidence in NNSA's ability to precisely project costs and to realistically defend uncosted balances. Additionally, building accurate cost plans increased LLNS' credibility when defending Future-Years Nuclear Security Program (FYNSP) budget requests. LLNS volunteered time and effort to participate in Cost Estimation and Analysis Group (CEAG) reviews, sharing best practices to help improve project cost estimates across NNSA.

Objective 4.4

The Office of General Counsel (OGC) exercised sound judgment and effectively represented the laboratory in challenging legal matters. OGC's effective representation is exemplified by its handling of several wildfire claims resulting in potential savings and eliminating excessive legal expenses. OGC performed well to process Freedom of Information Act (FOIA) and helped to stand up FOIA teams to facilitate and expedite reviews.

Objective 4.5

LLNS's Cybersecurity Program completed its self-assessments for the applicable Focus Areas of the Multi-Year Cybersecurity Program Execution Guidance. This resulted in an evaluation of "exceeded expectations" by the NNSA Office of Information Management (NA-IM). Furthermore, LLNS's Cybersecurity Program successfully completed two NA-IM Command Cyber Readiness Inspections,

which encompassed both technical and programmatic factors. The Cybersecurity Operations Center constantly monitored vulnerabilities and sent a nightly report to LFO and the Information Assurance Response Center on high visibility items, observations, threat hunting for security enhancements, and continuous monitoring reporting issues.

Objective 4.6

LLNS completed a thorough impact analysis and Implementation Plan (IP) for the recently revised DOE Order 151.1, *Comprehensive Emergency Management System*. LLNS identified programmatic impacts and sequencing of emergency preparedness and response documents and processes for timely compliance with revised directive requirements. LLNS updated more than 40 documents and exceeded the IP goal without disrupting the completion of normal workload deliverables.

LLNS responded to significant, time-sensitive changes to operations and/or hazardous materials at three facilities with Emergency Planning Hazards Assessments. LLNS completed new Emergency Action Levels (EAL) to account for substantial changes in radiological and chemical inventory limits. The new EALs assured LLNS maintained acceptable emergency preparedness and response postures to address credible release scenarios. LLNS conducted various exercises of differing scope to challenge its ERO and test required response capabilities.

LLNS personnel have supported and collaborated with NNSA's Office of Emergency Management by leading several programmatic discussions, providing feedback and suggestions for program enhancement, and participating in and leading Emergency Management Issues Special Interest Group discussions and activities.

Objective 4.7

LLNS delivered efficient, effective, and compliant business operations. LLNS effectively managed NNSA Office of Defense Programs high visibility procurements by coordinating between the procurement and program teams, alerting programs of risks that might affect schedule, and identifying opportunities to streamline. LLNS successfully partnered to develop first-of-a-kind procurement metrics for NNSA for the purpose of understanding and improving procurement timelines to deliver NNSA's mission faster. Furthermore, LLNS consistently submitted robust subcontract actions and Buy American Act exemptions for consent.

LLNS executed effective recruiting and retention operations, some concerns were noted. For example, LLNS's business cases for additional benefits and/or compensation lacked essential details, including comprehensive cost analyses, supporting metrics, and measurable outcomes. Furthermore, responsiveness to NNSA's inquiries for supplementary information was notably slow, hindering timely and thorough evaluations. LLNS exceeded expectations in all six small business categories, including a 30 percent increase in spending with HubZone businesses from FY 2024, and maintained a highly effective property system.

Goal 5: Construction Projects and Infrastructure

Amount of At-Risk Fee Allocation: \$5,108,087

Goal 5 Summary

LLNS earned a rating of Very Good, and 90 percent of the award fee allocated to this Goal. LLNS exceeded many of the 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

LLNS successfully planned, prioritized, and submitted its infrastructure requirements for FYNSP FY 2027-2031 to include projects and budgets for Operations of Facilities, Maintenance, Recapitalization, and Transition and Disposition. All requirements were uploaded into the G2 Program Management system within NNSA FY 2025 guidance. LLNS's planning effort included a 5-to-10-year integrated priority for the Cooling and Heating Asset Management Program (CHAMP).

LLNS submitted a Class 3 estimate for equipment removal from Building 435 which was inaccurate and needed revision. This error resulted in the reduction of \$2.9M in available FY 2026 funding as NNSA was forced to account for this error. Additionally, LLNS provided inadequate submittals for the DOE Environmental Management Excess Facility Walkdown Checklist and the Request for Proposal for Building 212 Deactivation and Decommissioning, both of which impacted the planning and scheduling for disposition of excess process-contaminated facilities.

LLNS created a new AI machine learning tool called "Bernie AI" that facilitated more effective, efficient, and timely infrastructure decision-making using NNSA data. The tool was showcased at the 2025 Y-12 Deep Dive to resounding success which resulted in an invitation to demonstrate it to NNSA Senior Leadership. In just over a year, Bernie AI has gone from conceptual planning to a working tool that has great potential to transform infrastructure planning and execution.

LLNS maintained a zero-alert count for Critical Alerts consistently through FY 2025. LLNS was an active member of the Integrated Infrastructure Planning Sub team 4 and successfully contributed to the development of the Early-Stage Infrastructure Planning document.

LLNS' BUILDER team successfully partnered with Pantex and CNS to conduct a voluntary, focused peer review to identify ways to streamline data management and improve infrastructure delivery. LLNS freely offered its time and technical resources to perform detailed data quality reviews, provide actionable solutions to streamline infrastructure data management, and gave sister sites validated roadmaps to improve organizational culture.

Objective 5.2

LLNS continued to maintain successful execution of its recapitalization project portfolio, with most projects progressing on or ahead of schedule and within or near budgeted cost. Notable examples of projects ahead of baseline include the Building 133 Heating Hot Water System Upgrade, Building 391 Optics and Materials Science Cleanroom Conversion, and Site 200 Mechanical Utility Third Tier Valve and Piping Replacement.

LLNS's Digital Infrastructure Capability Expansion (DICE) project achieved 100 percent Construction Complete ahead of schedule. The Start of Operations is anticipated nine months ahead of schedule and six percent under baseline budget. This project was the first to follow many of the protocols and strategies outlined in NNSA Supplemental Directive (SD) 413.3-7. The project was completed ahead of schedule and under budget despite not receiving \$2.7M in Management Reserve. The project was able to pursue an additional object scope after retiring many risks. LLNS's Advanced Sources and Detectors (ASD)/Scorpius team successfully addressed multiple challenges in production, worked with vendors to ensure quality metrics were met and sought solutions to maintain schedule. LLNS executed behind schedule (Schedule Performance Index [SPI] 0.82) and under budget (Cost Performance Index [CPI] 1.14) for the Advanced Sources and Detectors project. The schedule delays were associated with the late start of subcontract procurements for the Principal Underground Laboratory for Subcritical Experimentation 100 Solid State Pulsed Power Line (SSPP) Replaceable Units (LRUs) and the delivery of the SSPP LRUs, Middle Ware, and Diagnostic Box to the Integrated Test Stand (ITS) due to quality issues. LLNS aggressively worked to address the quality issues ensuring that most of the equipment will be delivered to ITS by the end of FY 2025, reducing the schedule variance by 50 percent. The 220 LRUs ordered for ITS have arrived and are in the process of being installed. Nearly all LRUs that were

tested at ITS passed their suite of electrical tests upon arrival, demonstrating a robust design and quality programs. LLNS successfully streamlined and accelerated delivery of CD-1 deliverables to meet DOE O 413.3B requirements under budget and ahead of schedule for the NIF EYC project.

LLNS's National Security Innovation Center (NSIC) project successfully achieved CD-0. An accelerated AoA was delivered ahead of schedule. PRISM successfully obtained approval to utilize the NNSA SD 413.3-7 and completed the CD-0 package for NNSA approval. Beyond Line-Item projects, LLNS is currently managing 148 projects in active execution, design, procurement, construction, or demolition, completing 88 projects with a Total Projected Cost of \$222.3M. Of the projects being monitored, cost performance exceeded expectations with a CPI of 1.02 and schedule performance SPI of 0.99. LLNS systematically, consistently monitored and reported projects against baseline through quality monthly reports and ad hoc touch points. LLNS also completed all FY 2025 roofs and submitted the list of roofs to be designed in FY 2026 to the Roof Asset Management Plan team in Kansas City.

Objective 5.3

LLNS was exceptional in its management of maintenance and operations activities during a highly constrained budget cycle. LLNS extensively collaborated with various NNSA offices to develop mitigation strategies to address the FY 2025 budget shortfalls ensuring continuity of operations for mission critical facilities. LLNS produced numerous presentations, data calls, and analyzed forward projections to highlight the budget challenges. As a result of these efforts, LLNS obtained more funding to execute the FY 2025 Program of Record. LLNS consistently provided deliverables before deadlines. LLNS continues to provide exceptional support to the CHAMP program ensuring successful project execution. LLNS continued to demonstrate increased attention to risk management and has implemented successful risk management strategies through collaboration with headquarters and M&O sites.

Goal 6: Mission Leadership

Amount of At-Risk Fee Allocation: \$7,662,130

Goal 6 Summary

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

LLNS senior leadership, in support of and in alignment with the NNSA's Enterprise Blueprint, continued its strategic efforts on the “over-the-horizon” actions the laboratory needs to maintain and grow its value to, and impact on, pressing national security concerns that may face the nation over the coming decades. LLNS leadership, through NNSA direction, executed a noncompetitive extension of its M&O contract for LLNL. This allows NNSA a posture to stagger M&O contract competitions at an every-other-year cadence to encourage robust industry participation.

Objective 6.2

LLNS conducted benchmarking at INL to evaluate best practices in QA and CAS. The effort focused on understanding INL's processes for integrating assurance frameworks, fostering a culture of accountability, and driving continuous improvement. LLNS continued to demonstrate maturity in its CAS. However, its effectiveness is compromised by incomplete self-assessments and protracted issue

resolution processes. The discontinuation of the institutional stalls report introduces notable risks. Enhancing the comprehensiveness of internal reviews, timely issue resolution, and reinforcing governance will optimize the CAS, provide clearer insights and mitigate institutional vulnerabilities. LLNS's Office of Laboratory Oversight updated its risk assessment process integrating enterprise risk management, enabling a more comprehensive evaluation of organizational risks. The impact of these efforts has been realized throughout FY 2025, strengthening risk-based audit coverage and strategic alignment.

Objective 6.3

The LLNS Board of Governors and Executive Committee Meeting met with the LFO's new Manager and Deputy Manager, as an introduction between LFO leadership and the Board to discuss enhancing the current partnership, M&O needs, future funding requirements, and Executive Order compliance.

The DOE Office of Intelligence and Counterintelligence inspected three upgraded Sensitive Compartmented Information Facilities (SCIFs) at LLNL. These facilities are critical to LLNL's mission supporting DOE, NNSA, the Department of Defense, and the Intelligence Community. LLNS received final ICD 705 accreditation for (b) (7)(E), (b) (7)(F) and interim accreditations for two SCIFs in (b) (7)(E), (b) (7)(F) pending future testing. LLNS was praised for leading the DCID 6/9 to ICD 705 transition across the complex, citing the Laboratory's efficiency, construction quality, and progress. ICD 705 compliance enhances security, builds sponsor confidence, and streamlines intelligence program work.

LLNS's Nuclear Operations, the Project Management Office, and Weapons Infrastructure personnel in conjunction with LANL benchmarked operations and infrastructure work being performed at the LANL plutonium facility. Follow on topic of interests include integration of the LANL plutonium facility activities through the recently established Operations Integration Center; safety basis activities related to development of the new LANL plutonium facility, and EMDI 2.0 discussions on Radiation Protection, MC&A, Criticality Safety, and Safety Basis.

LLNS was asked to serve as the lead M&O partner for the Analytics, Planning, and EXecution (APEX) Center, a Center of Excellence that will serve as an enterprise resource and act as a force multiplier to explore new infrastructure concepts. LLNS was recognized for helping NNSA pilot infrastructure innovations such as Deep Dives, area plans, campus strategies, polymer enclave, and EMC2.

Objective 6.4

Multiple LLNS organizations, including the Livermore Transformation Office, Livermore Information Technology, Security Organization, Foreign Travel Office, Travel Management, Counterintelligence, Global Security, and Strategic Deterrence, collaborated on a process improvement effort and launched Personal Foreign Travel System. This allowed LLNS staff to complete and submit personal travel reports more efficiently, replacing the need for multiple forms with a single, streamlined solution.

LFO and LLNS are performing an 18-month pilot project to demonstrate the practicality and feasibility of managing risks cross-functionally in multiple projects to include the Superblock Facility complex. This pilot project enables faster decision making and execution, support a risk-managed, agile operations and oversight model, and streamline operations with improved productivity.

LLNS is leading the ESN Hub deployment that modernizes ESN's classified infrastructure and encourages communication across the NSE by transforming the way NNSA uses IT and cybersecurity solutions. ESN Hub deployment is meeting overall cost, schedule, and technical performance requirements and their efforts were recognized with the Administrator Award for their progress.

LLNS achieved a working network connection to the Amazon Web Services (AWS) in the first ever Secret Restricted Data (SRD)-level workloads in the cloud on July 11, 2025. This milestone is a first for DOE/NNSA sites and cloud vendors.

LLNS collaborated with and has begun sending its excess scrap steel to INL for the benefit of high explosives scientists, engineers, and technicians. This effort supports the LLNL Strategic Deterrence High Explosives Awareness class at INL's National Security Test Range. In its first month of operation the initiative has cleared over 80 tons of steel from LLNL sites, saving LLNS close to \$400,000 and saving INL more than \$300,000 in future costs.

LLNS and SNL worked together to provide a W87-1 101 Class to enable fast learning and understanding of the W87-1 system to all new personnel joining the program. This event was open to Air Force, NNSA, and all personnel from laboratories, plants, and sites interested in learning more about the program.

Objective 6.5

NIF personnel designed a tool to provide operators with faster, more accurate troubleshooting guidance, reducing downtime and improving overall operational efficiency. This innovative efficiency project was undertaken to address operational challenges stemming from the facility's complexity, aging infrastructure, and knowledge retention issues. Leveraging AI, the project developed a Natural Language Processor using AWS to intelligently search and analyze over 98,000 archived problem logs and 7,500 critical path delays.

LLNS's Explosives Handler Training Program established a standardized and sustainable approach to explosives handling across the Explosives Enterprise. LLNS developed a two-week in-resident course at Texas A&M which rigorously covers policies, procedures, safety documentation, and regulatory requirements to ensure consistency and operational excellence. Recognized as a benchmark across the DOE complex, the program has trained 17 staff members in this reporting period (300 to date), including participants from Argonne, SNL, LANL, and Pantex, with further expansion to Air Force Research Laboratory participants.

LLNS implemented an enhanced Configuration Management Program for real property and institutional equipment under the Lock Out Tag Out (LOTO) Corrective Action Plan. The new program centralizes the development, revision and storage of facility drawings, utility drawings, electrical panel schedules and other LOTO related documentation to reduce the risk of LOTO incidents stemming from employee and subcontracted maintenance work.

LLNS's MC&A team continued to implement new order requirements and make significant changes in all sub-topical areas to meet requirements and program office intent. MC&A completed physical inventory for two material balance areas. The LLNS MC&A Academy Team received the NNSA Administrator's Achievement Award for creating a contractor technical qualification program to be used as source material for the Academy to train future NNSA MC&A experts. The MC&A team continued to revise and develop program documentation in close coordination with key programmatic stakeholders and oversight.

Objective 6.6

LLNS's senior leadership and Human Resource (HR) staff took prompt actions to comply with new Executive Orders by addressing DEI program staffing, policies, and programs; and gender ideology policies and practices as required. Senior leadership also focused on removing external references to climate change and related topics. Internal reviews and actions continue to ensure all applicable areas are identified and addressed.

LLNS senior leadership continued to drive improvements in HR programs, benefits, and systems. LLNS implemented a new regional compensation program to provide geographic differentials based on the cost of labor. This aligns LLNS's compensation practices with federal agencies, other National Laboratories, and private industry.

LLNS's active external engagement and recruiting continued to benefit current and future staffing efforts as well as promote science, technology and engineering disciplines.

LLNS is creating a new job architecture and job families in support of the Compensation Redesign project, which is one of the laboratory's top culture change initiatives.

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 design, build, certify and assess current and future weapon systems, processes, and components and enable development of new and innovative materials, processes, and components to achieve higher technology and manufacturing readiness levels and rate production, while driving the state-of-the-art for science and technology.

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.

Key Outcome 1.1

Transition El Capitan to production use on the classified network and make the system available to tri-lab users 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.

K.O. 2.1

Execute Nuclear Threat Science plans for integrated experimental campaign activities to study two Assessment Level 1 materials, with completion of hydrodynamic and confirmatory experiments and target fabrication consistent with baseline schedule; and complete the design and initial build of the training aid for a capability challenge exercise with international partners 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 Laboratory Research and Development (LDRD) 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., LDRD) with Laboratory 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 Laboratory'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 Laboratory 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 assuring 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 LLNS' 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 Laboratory and the Enterprise.

Objective 6.1

Define and implement a realistic strategic vision for the Laboratory 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.