



National Nuclear Security
Administration

Savannah River Nuclear
Solutions, LLC

Performance Evaluation
Report (PER)

NNSA Savannah River Field
Office

Evaluation Period:
October 1, 2022 through
September 30, 2023

December 12, 2023

Controlled by: National Nuclear Security Administration, (b)(6),
NA-SV (b)(6) @nnsa.srs.gov (b)(6)

Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration (NNSA) assessment of performing entity, Savannah River Nuclear Solutions, LLC (SRNS), performance of the contract requirements for the period of October 1, 2022 through September 30, 2023, 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 SRNS 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 SRNS performance against the PEMP and provides the basis for determining the amount of award fee earned by SRNS. The NNSA took into consideration all input (e.g., contractor assurance system (CAS), program reviews, etc.) obtained from NNSA Program and Functional Offices both at Headquarters and in the field. The work performed for NNSA programs at the Savannah River Site (SRS) is conducted by SRNS under an M&O Contract for Fiscal Year (FY) 2023. This is a Department of Energy Office of Environmental Management (DOE-EM) contract under which NNSA-funded and -directed work is performed.

In FY 2023, the team at SRNS delivered for the nation, ensuring all Department of Defense shipments were on-time, directly supporting NNSA’s national security mission during a time of geopolitical uncertainty. SRNS effectively used the Knowledge Transfer and Mutual Support Programs to collaborate and establish NNSA’s ability to produce 80 plutonium (Pu) pits per year. Operationally, SRNS surpassed the annual downblend processing objective, completed six tritium extractions, performed well in maintenance, and published the Plutonium Manufacturing Classification Guidance. SRNS successfully executed the Savannah River Plutonium Processing Facility (SRPPF) Project Construction Management subcontract, Dismantlement & Removal Critical Decision-3A activities, and Tiger Team implementation of Critical Decision-3X packages. SRNS leadership further supported complex wide initiatives by supporting NNSA Programmatic visits, Deep Dive meetings, and various interactive forums across the complex.

SRNS’ attention to design production is necessary to recover and maintain the SRPPF Project Design Performance baseline. SRNS exceeded the budget for two tritium small projects, Y788 and Y790 and missed the baseline schedules for projects Y751, Y788, and Y790. Further, additional attention is warranted to strengthen the emergency management and contractor assurance programs.

*Note: SRNS’s performance for FY 2023 on NNSA efforts is measured against the NNSA Corporate PEMP. The NNSA Corporate PEMP consists of five Performance Goals supplemented

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with Objectives and Key Outcomes for each Goal. Fee is distributed among the five Goals as specified in the PEMP. For SRNS, Goal 3 is not applicable and therefore has no associated fee. The work measured against the NNSA Corporate PEMP is discussed under Goals 1 through 5 below.

SRNS earned an overall rating of Very Good during this performance period. SRNS earned Excellent ratings for Goals 1 and 2, and Very Good ratings for Goals 4 and 5. Specific observations for each Goal are provided in the following pages.

**Goal 1: Mission Delivery: Nuclear Weapons
SRNS Amount of At-Risk Fee Allocation: \$19,764,373**

Under this goal, SRNS earned a rating of Excellent, and \$18,776,154 of the available award fee allocated to this goal. Accomplishments significantly weighed issues, and no significant issues in performance existed. SRNS exceeded almost all of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate.

SRNS delivered all Tritium shipments on time. Helium (He-3) cylinder loading exceeded the FY 2023 milestone. SRNS received and processed 11 Legal Weight Transport (LWT) casks and completed 6 extractions. SRNS conducted extensive planning efforts for the calendar year (CY) 2025 outage, initiated procurement of all long-lead items, and ensured the designs were all 90 percent or greater complete. SRNS executed early loading in support of the outage window. SRNS completed Module Stripper and Glovebox Stripper blower repairs during the Open Glovebox Maintenance and developed a mass spectrometer replacement and implementation strategy to address equipment obsolescence. In addition, SRNS showed excellent flexibility by completing an FY 2024 W88 Gas Transfer System (GTS) bottle fill plan. This was part of an accelerated schedule to support the FY 2025 outage. SRNS also submitted a W80-4 baseline replan requested by NA-10 on schedule to support new First Production Unit (FPU) date of FY 2027.

SRNS advanced the establishment of the Pu Pit Production capability through the completion of site acceptance testing of two lathes, finalizations of the Machine Training Center (MTC) equipment maintenance plans, and operational turnover of the lathes to building 766-H operations. The goal of the MTC and High-Fidelity Training Operations Center (HFTOC) is to develop trained operational personnel prior to completion of the Savannah River Plutonium Processing Facility (SRPPF) Project. SRNS also completed the Surrogate Strategy and Implementation Plan for the HFTOC as a collaborative effort among several sites.

SRNS cooperated effectively with Triad. Subject Matter Experts (SMEs) from Los Alamos National Laboratory (LANL) visited SRS to review prototype furnace designs and glovebox layouts for the SRPPF Pyro and Foundry systems. The LANL SMEs provided feedback on the designs and shared invaluable operating experience considerations with the SRS team. SRNS hosted LANL visitors at SRS in support of Tritium maintenance and equipment reliability program benchmarking. The Knowledge Transfer Program (KTP) successfully placed candidates at LANL and several that participated in the program returned to work at SRS.

SRNS submitted the initial Program schedule for the SRPPF FPU, covering Cold Development and Operational Readiness Review preparation activities in the HFTOC and post CD-4 (project completion) activities in Building 226-F. NNSA comment resolution is currently underway.

SRNS diligently worked to improve the Tritium production and modernization processes to sustain production capabilities, equipment, and infrastructure during FY 2023. As a result of the NA-10 directed pause, SRNS exceeded lead time metrics for reservoir processing. The facility worked

diligently to recover from the directed pause through increased review and packaging to improve reservoir process work time metrics. SRNS accommodated evolving program needs by preparing multiple actuators within a month's time to be shipped to Kansas City National Security Campus (KCNSC) under the Weapons Dismantlement and Disposition (WDD) program for re-use. This accomplishment demonstrated the overall ability of SRNS to meet shifting programmatic demand.

SRNS performed multiple tests for both surveillance and quality purposes throughout the fiscal year, including 45 RAPTOR (Rapid Analysis Promulgated to Obtain Results) tests, with an equivalence ranging from 6.45 to 99.65, 24 RAISIN (Reservoir Archive and Integrated Surveillance Information Network) tests, 14 LSP (Life Storage Program) reservoirs/components evaluations, and 9 metallurgical reports. In FY 2023, 23 reservoirs could not be worked because they were not unloaded, activity was not funded, or they were involved in other processes. With the present Metallurgical Lab examination output of approximately 37 reservoirs per year, a Work Pending Inventory (WPI) of 0.46 years exists, excluding reservoirs which cannot be worked.

SRNS executed surveillance activities as scheduled. SRNS completed Ion Current Measurement (ICM) for multiple units judiciously. SRNS loaded and function tested multiple units during the period. Additionally, SRNS transferred three test valves to the Beryllium hood within the Materials Test Facility and performed two W80-4 Life Extension Program (LEP) GTS Function Tests. These tests were significant for the program, as they represented the first set of units processed and function tested in the tritium facilities using tritium. Preliminary data indicates the tests were successful.

SRNS upgraded key capabilities with the installation of a new abrasive saw and laser marker for metallographic examination. SRNS completed installation of the Digital Imaging and Measurement System (DIMS) two weeks ahead of the milestone date and installed a new Electron Discharge Machining (EDM) device in H-Area Old Manufacturing (HAOM) to assist in the reservoir surveillance process. This eliminated the need to transfer units to A-Area, which represented the preexisting process.

SRNS exceeded expectations executing the Plant Directed Research and Development (PDRD) Program and managing the ten individual projects. Highlights include progress on alternate diffuser and pump design, passivation of vessels, and rod cutter head improvements. Personnel completed tensile and fracture mechanics testing on tritium exposed and aged Additively Manufactured (AM) stainless steel. These tests represent the first of their kind on such materials.

Goal 2: Mission Delivery: Global Nuclear Security
SRNS Amount of At-Risk Fee Allocation: \$2,823,482

Under this goal, SRNS earned a rating of Excellent, and \$2,682,308 of the award fee allocated to this goal. Accomplishments significantly weighed issues, and no significant issues in performance existed.

SRNS exceeded almost all the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate.

SRNS executed activities to support removal of plutonium from the Savannah River Site. SRNS exceeded downblend operations annual processing objectives with completion of 111 vs 100 planned downblends in FY 2023.

SRNS submitted several deliverables, including the final draft Surplus Plutonium Disposition (SPD) Strategic Plan, FY 2023 updates to the feed table and Pantex shipping plan, FY 2023 update to the Container Management Plan, FY 2023 annual liability, FY 2023 SPD Program Overview, K-Area staffing plan, annual update to the SPD Safeguards & Security (S&S) campaign plan, K-Area commodities center proposal, and the update to the K-Area space utilization plan. SRNS conducted a Plutonium Oxide Packaging Study with participants from LANL and SRS. SRNS made significant progress on various process model simulations including updates to the SPD integrated process model, Criticality Control Overpack (CCO) pad operations model, and preliminary development of the K-Area complex macro process model.

SRNS supported the engagement with the International Atomic Energy Agency (IAEA) on establishing infrastructure and processes to maintain materials under international safeguards after downblend and through the disposal process.

SRNS supported design change requests for the Enhanced Dilution Process (EDP) including establishing a new process for communicating changes to the blend can vendor.

SRNS conducted key planning activities for future projects including pre-conceptual design of the CCO storage rack project and developing a technology development plan for the Integrated Data Management System (IDMS).

SRNS effectively supported the Nuclear Emergency Support Team (NEST) and its interagency mission partners in the Federal Bureau of Investigation/Stabilization Program and Hazardous Device School, South Carolina State Law Enforcement, South Carolina Department of Health, Defense Threat Reduction Agency, Naval Air Station Jacksonville, the Office of Secure Transportation, United States Navy, and the National Nuclear Security Administration Offices of Defense Nuclear Nonproliferation/Counterterrorism and Counterproliferation through exercises, training, and planning activities.

SRNS successfully supported the completion of the first shipment of downblended surplus plutonium to the Waste Isolation Pilot Plant (WIPP) in December 2022, and 12 additional shipments made by September 2023. In preparation, SRNS supported integration efforts with Carlsbad Field Office (CBFO), Nuclear Waste Partnership (NWP), EM, and NNSA regarding the certification of the K-Area Transuranic (TRU) waste program. The SRNS Vulnerability Assessment Team continued to provide excellent support to WIPP to implement a revised site security plan that supported receipt of downblended plutonium shipments. SRNS supported the Transport Remotely Monitored Sealing Array (TRMSA) system for shipments of downblended plutonium to WIPP and supported the installation and operation of the TRMSA system on all shipments of downblended

plutonium to WIPP in FY 2023.

SRNS made progress for the two Entry Control Facility (ECF) minor construction projects by awarding the subcontract for ballistic steel panels to comply with DOE security requirements and installing the Security Inspector Operational Area (SIOA). The costs for the two K-Area ECF minor construction projects increased substantially (>\$5 million), and completion dates delayed from the pre-conceptual estimates developed in FY 2020 and FY 2021. SRNS implemented process improvements to mitigate cost increases for minor construction projects in the future.

Goal 3: Mission Innovation: Advancing Science and Technology

SRNS Amount of At-Risk Fee Allocation: Not Applicable

This Goal is Not Applicable to SRNS

Goal 4: Mission Enablement

SRNS Amount of At-Risk Fee Allocation: \$25,411,336

Under this goal, SRNS earned a rating of Very Good, and \$20,329,069 of the award fee allocated to this goal. Accomplishments greatly outweighed issues, and no significant issues in performance existed. SRNS exceeded many of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate.

During the period, SRNS consistently met key quality goals including Corrective Action timeliness and Self-Assessment timeliness. SRNS conservatively identified and then actively managed Nonconformance Report (NCR) closure. SRNS performed many self-assessments across all functions on a monthly basis and SRNS management actively monitored each self-assessment. SRNS experienced Quality Assurance (QA) staffing shortfall challenges, but resolved them, and current staffing levels appear adequate. SRNS noted quality issues at one of the key vendors fabricating equipment for the CY 2025 Outage and subsequently increased QA and Engineering surveillance at the facility. Overall, the SRNS QA organization is mature and embraces a culture of self-improvement. SRNS Weapon Quality Assurance (WQA) Management leadership successfully executed WQA activities and supported multiple WQA initiatives. SRNS hosted a widely attended Weapon Quality Forum during the second quarter. SRNS also supported the execution of the Quality Assurance Survey (QAS) Level 2 for reauthorization of Stamping Delegation.

SRNS transmitted the Combined Tritium Facilities (CTF) Safety Basis Documents (SBDs), Revision 1 for approval as scheduled and worked to resolve SRFO essential and suggested comments. SRNS worked with SRFO to incorporate the CY 2025 Outage SBD changes to support Building 233-H that will be undergoing substantial maintenance activities. Further, SRNS self-identified and declared Potential Inadequacy in Safety Analysis (PISA) due to the possible non-conservative material-at-risk (MAR) value for mass spectrometer capillary leaks and another PISA was declared for the less than adequate implementation of the safety basis control regarding the

Tritium Air Monitors during use of the Mechanical Tester. SRNS developed responses to the concerns raised in the Defense Nuclear Facilities Safety Board letters on both the 296-H Tritium Stack Structural Review and the Observations Related to the Inadvertent Tritium Release Event. In support of the Co-located Worker Risk Reduction Strategy, SRNS continued working on Co-located Worker Dose Reduction (CLWDR) efforts by development of multiple systems/structures/components (SSCs) and analytical assumptions, which could reduce the postulated high residual doses to the Co-located Worker. During the fiscal year, SRNS completed the following SSC initiatives: 233-H Seismic Tritium Confinement System (STCS) Back Fit Analysis (BFA) and building 233-H and Tritium Extraction Facility (TEF) Fire Suppression System (FSS) seismic evaluations. In addition, for the analytical initiatives, SRNS completed the Tritide Distribution Inventory, and continued to work with Brigham Young University (BYU) SMEs on the logistics of Tritium Burning for the oxidation analysis work.

SRNS Environmental compliance and waste programs met expectations with no significant concerns or areas of improvement to report. SRNS maintained compliance with National Pollutant Discharge Elimination System (NPDES) effluent requirements at the H-02 outfall station. SRNS Health Physics (HP) and Radiation Protection (RP) ensured 4 Open Glovebox Maintenance (OGM) evolutions, 8 Tritium Producing Burnable Absorber Rods (TPBARs) cutter head rebuilds, 11 LWT container receipts, and 2 waste container shipments. SRNS executed these activities safely and minimized worker exposure.

The SRNS Environmental Stewardship, Safety and Health (ESSH) organization met expectations overall. SRNS personnel experienced 3 Total Recordable Cases (TRCs), and 13 first aid cases. Considering the increased level and complexity of work, these numbers were slightly lower than previous year performance. SRNS Health and Safety subject matter experts provided extensive input into the TEF Modular Stripper work packages for the OGM outage. Industrial Hygiene (IH) completed design reviews in support of NNSA DOE and NNSA Operation & Programs and continued focus on Small Projects and Project work associated with Tritium Finishing Facilities (TFF). IH also provided input to NNSA-HQ regarding Chronic Beryllium Disease Prevention Supplemental Notice of Proposed Rulemaking (SNOPR) and Beryllium Checkboard.

The SRNS Tritium Maintenance Organization (TMO) exceeded expectations this year. SRNS planned and executed multiple Planned Maintenance Period (PMP) outages throughout all three Tritium Facilities, and efficiently planned and executed two of the most successful TEF glovebox stripper (GBST) blower outages to date (no additional rebuilds and lowest vibration readings ever achieved on a GBST blower installation). SRNS also continued to make progress with planning for the upcoming CY 2025 Thermal Cycling Adsorption Process (TCAP) and Room 16 Chiller outage at H-Area New Manufacturing (HANM), and SRNS continued with implementation of the Reliability Centered Maintenance (RCM) during the year. SRNS conducted field work with very little conduct of operations or performance issues.

SRNS Conduct of Operations met all extractions, loading commitments, and project deliverables and successfully performed major maintenance outages this fiscal year. In January 2023, SRNS issued a back-to-basics presentation to staff that included a review of conduct of operations best

practices. In May, SRNS experienced an increase in the number of Conduct of Operations (ConOps) events leading to an operational pause. After which, the conduct of operations events fell significantly. In July and August, SRNS rolled out Conduct of Operations sustaining actions from the recently approved Performance Improvement and Sustainability Plan (PISP), which included updates from the Common Cause Analysis and the SRNS Advancing ConOps Excellence (ACE) team benchmarking trip to Y-12 in May.

SRNS Engineering and Fire Protection put significant efforts into fabricating new TEF cutterheads to replace those from a previous vendor no longer in business, resulting in four (4) new cutterheads received onsite and placed in service. SRNS engineering supported preparations and execution of two OGM outages, Module Stripper System (MDST), and Glovebox Stripper System (GBST). Engineering worked with a vendor to get the motors in the best working condition and continued working on the long-term replacement blower design that will not require an OGM for replacement. Blowers from two respective vendors arrived onsite and are with Savannah River National Lab (SRNL) for testing. Engineering continued working on the Zinc (Zn)-65 issue to control migration. SRNS procured new monitoring equipment to aid in detection and stop migration to other areas. SRNS worked on a design change for the addition of particulate filters. Because SRNS did not follow notification, work scope, and protective equipment protocols, an engineering walkdown in Building 234-7H resulted in potential personnel exposure in a contamination area. This resulted in project impacts for corrective actions and lessons learned implementation.

SRNS had a total of 30 small tritium projects in the design/execution phase. For the evaluation period, SRNS did not meet the project baseline schedules for three of the small projects: Y751, Y788, and Y790. For these three projects, four G2 milestones were missed due to the need for SRNS to issue design changes to modify vendor supplied equipment to meet design and life safety requirements and encountered field conditions that differed from final design documents. Global supply chain issues continued to affect receipt of some equipment. The HCN-TCAP CY 2025 Outage project is a critical effort that includes six of the small projects. Reviews of the updated CY 2025 Outage project schedule occurred monthly, and by the end of the fiscal year, noted that SRNS produced a project schedule with much improved structure. SRNS executed small dollar value (less than \$2 million), less complex projects within cost and schedule.

SRNS successfully planned and hosted an Office of Infrastructure Programs, NA-90, Deep Dive meeting for approximately 200 in-person and virtual attendees. SRNS also volunteered to host the FY 2023 Spring BUILDER Planning Meeting, which benefitted the entire nuclear security enterprise and resulted in significant progress in meeting FY 2023 BUILDER milestones and establishing BUILDER milestones for FY 2024.

In FY 2023, SRNS made changes to the work scope for the Building 236-H Decommission and Deactivation (D&D) project due to potential contamination. As a result, SRNS submitted a Request for Project Authorization, and moved funding from the Building 238-H D&D project to remove Building 236-H as a contaminated facility under project Y864. SRNS also approved the Statement of Work for the D&D subcontract and the hazardous energy isolation document. During this fiscal year, SRNS completed all electrical work and process piping, submitted the site clearance permit for messenger basket removal, and obtained and awarded the Mentor Protegee bid for demolition.

SRNS focused on delivering effective, efficient, and responsive Safeguards and Security (S&S) management and overall performance met expectations. SRNS continued to lead and support multiple security tasks, security training, design reviews, and projects critical to the Savannah River Tritium Enterprise (SRTE) and SRPPF.

SRNS teamed with LANL and the Savannah River Field Office (SRFO) to publish the Pit Manufacturing Classification Aid, three SRPPF classification bulletins, and initiated a major update of the Boosting and Transfer Systems guide. SRNS also led a critical revision to the Classification Guide for Transportation Security and Safeguards. The SRNS SRPPF Material Control and Accountability (MC&A) Team completed the SRPPF MC&A plan and the initial version of the SRPPF MC&A Training Plan.

In support of planning for site transition, SRNS provided substantial assistance in clarifying indirect work scope and compiling financial data. SRNS successfully managed the indirect program budget, enabling completion of additional infrastructure scopes within budget, which benefits NNSA as a large contributor to the indirect program budget.

SRNS' legal team provided prompt assistance, a cooperative environment, and invoked best legal practices while working with NNSA Site Counsel on urgent SRPPF issues including a sole source justification, Supplement 11 to the Organizational Conflict of Interest Plan, and revised and finalized the SRPPF Construction Management (CM) Purchasing Action Under Review (PUR) package for review to enable the Request for Proposal (RFP) release. However, concerns (legal and otherwise) with certain negotiated contract terms and conditions in the CM subcontract existed, which increased the Government's risk and necessitated subsequent discussions with respect to accuracy and transparency in the Terms and Conditions.

During the period, SRNS had challenges demonstrating the ability to meet several implementation factors but obtained an overall Met Expectations for the year. Risk Assessment Reports (RAR) did not provide sufficient risk information to enable thorough evaluation for risk acceptance. SRNS migrated two information systems into the Site Multi-Tenant Architecture, which is a platform used to manage industrial control systems. SRNS consistently responded to all data calls either early or on time. No security events or significant losses in services affecting the confidentiality, integrity and availability of NNSA information systems existed.

The SRNS Emergency Management Program declined in performance in FY 2023. Loss of key SRTE Emergency Management personnel along with a redirection of the program to better align with the SRNS Site Emergency Management Program proved challenging. SRFO issued a letter of decline, relative to emergency management, to SRNS SRTE leadership. In response, SRNS developed an improvement plan in coordination with SRFO. In contrast to the SRTE, the SRNS SRPPF Emergency Management Program conducted its first operational drills, meeting expectations for continued operational drills and further developing the program.

SRNS successfully provided business operations support during the rating period. The SRNS Deputy Vice President, Contracts and Supply Chain Management and SRNS Contracts Manager

raised the quality of communication with SRFO Contracting Officers, providing advance notification of contractual correspondence. The SRNS Procurement Team collaborated with NNSA and DOE-EM on future changes to the SRNS Procurement Practices manual because of the Enhanced Mission Delivery Initiative (EMDI) working group. SRNS worked closely with NNSA to obtain approval of a refurbished item that was critical to Tritium Operations. SRNS Supply Chain Management provided an Acquisition Forecasting Tool; however, the submission was delayed several months, and the tool needs to be adjusted to forecast upcoming actions instead of a summary of actions already awarded. SRNS submitted one subcontract consent package during the rating period, which adequately addressed all NNSA concerns. The quality and completeness of subcontract consent package submissions improved over the previous fiscal year.

The SRPPF project design production to plan and overall completion continued to slip in FY 2023. Even though SRNS actively managed the work, the design performance measurement baseline completion date continued to trend negative due to less than adequate design integration, management and quality design outputs that continued to impact the schedule. SRNS SRPPF CD-3X planning and execution improved greatly with the implementation of the Tiger Team, but overall CD-3X performance baseline execution dates continued to slip due to untimely resolution of the technical design review comments and coordination/integration of the acquisition, technical and project management deliverables to support a quality package submittal and approval process. SRNS SRPPF project submitted the Design Performance Baseline on schedule and overall completeness was satisfactory. However, since May 2023, SRNS did not perform to the submitted Performance Measurement Baseline and did not maintain adequate change control that would enable prudent performance analysis and accurate performance reporting. SRNS SRPPF project Dismantlement & Removal (D&R) execution improved through FY 2023 and is on schedule and within budget. However, Coating Removal execution is behind schedule and over budget and the current path forward remains unclear and imposes potential risks to the overall project's critical path.

SRNS successfully submitted to NNSA, the 90 percent design completion package for the SPD Project. At the end of this rating period, SRNS resolution of NNSA comments remained in process. SRNS also completed the Formal Design Review per the baseline schedule.

SRNS completed 30 percent design of the TFF project and successfully brought the design to a close in accordance with the program's planned pause of the project. SRNS successfully initiated procurement of an electrical Automatic Transfer Switch, which is scheduled for delivery in December 2023. SRNS initiated the site preparation subproject, successfully removing the building 233-22H warehouse ahead of the September 29, 2023 milestone date.

Goal 5: Mission Leadership

SRNS Amount of At-Risk Fee Allocation: \$8,470,446

Under this goal, SRNS earned a rating of Very Good, and \$7,623,401 of the award fee allocated to this goal. Accomplishments greatly outweighed issues, and no significant issues in performance existed. SRNS exceeded many of the Objectives and Key Outcomes, and generally met the overall

cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate.

The SRNS leadership team supported NNSA strategic planning efforts by participating in the NNSA FY 2023 Strategic Planning Summit, the NA-90 Infrastructure Deep Dive, and the initial planning efforts for the EM to NNSA landlord site transition. SRNS hosted the Nuclear Security Enterprise's Weapon Quality Forum. The forum welcomed over 60 M&O and Federal Personnel from around the enterprise to discuss issues, policies, and share best practices.

SRNS' leadership team took a proactive approach to the CY 2025 HCN/TCAP outage by focusing on early procurement and testing of engineered long-lead procurements and large quantity consumables. SRNS leadership took steps to ensure parent company support of initiatives to aid in the accomplishment of the NNSA mission through organizational improvement efforts such as the plutonium pit modernization knowledge transfer, production agency mutual support efforts, and participation on a headquarters led team established to support the revision and rewrite of NNSA Supplemental Directive (SD) 226.1D, Site Governance.

A report from the site Issues Tracking System (ITS), Site Tracking Analysis and Reporting (STAR), shows that SRNS completed a total of 189 self-assessments in FY 2023, resulting in 44 Findings and 49 Opportunities for Improvement (OFIs). Additionally, STAR indicates that SRNS conducted 1,228 Management Field Observations (MFOs) for FY 2023. SRNS did an excellent job meeting CAS metrics in several categories, including self-assessment timeliness, and corrective action timeliness. SRNS' responses to correct and prevent ConOps issues, including Technical Safety Requirement (TSR) violations, support this achievement and demonstrate SRNS' willingness to drive change and be accountable.

Although many of SRNS' metric results trend positively, SRNS had many opportunities to improve and better leverage the CAS data. For example, while SRNS met self-assessment quality metrics, roughly only 36.7 percent of assessments resulted in self-identifying issues, which may not be supportive of a critical and rigorous self-assessment methodology. Additionally, the statistical data from monthly self-assessment reports and metrics scorecards does not align with the information that is found on the ITS database. MFOs are activities that also provide self-identifying data; however, the reports appear to lack consistency in how issues are documented, categorized, or handled, and are not included in any trending data. Furthermore, corrective actions do not consistently rely on CAS data to link trends and weaknesses that can be attributed to a breakdown in CAS elements, unclear expectations, or lack of line management oversight, rather than simply addressing individual events. This weakness was also identified by SRNS' Independent Evaluation Board Semi Annual Performance Analysis Report in June of 2023. SRTE had three Issue Investigations for one Significance Category (SC) 1 and two SC 2 issues for the fiscal year that underwent effectiveness reviews. SRNS' procedure does not require an effectiveness review for any issues categorized as SC 3 or above (261 SC 3 issues existed for FY 2023). Therefore, this CAS element cannot be fully evaluated to determine if the corrective actions, developed for the majority of issues identified, prevented reoccurrences and stabilized performance.

SRNS teamed with LANL, Environment, Health, Safety and Security (EHSS)-60, and SRFO to

publish the Pu Manufacturing Classification guidance that will be used by all organizations for the review and classification of documents. SRNS leadership participated in continuous organizational and enterprise learning by supporting ongoing NNSA program office site visits and data requests by providing a representative for the Nuclear Enterprise Assurance-Integration Working Group.

SRNS formulated, planned, and executed the award for the multi-billion-dollar Construction Management subcontract to manage the SRPPF Engineering, Procurement and Construction (EPC) activities. SRNS leadership proactively integrated and communicated with key external stakeholders to support the execution of the Pu Modernization Program and SRPPF project. SRNS actively participated in the Pu Modernization Matrix Execution Team (MET) and Multiple Lessons Learned (LL) exchanges with LANL, Y-12, Atomic Weapons Establishment (AWE), NNSA headquarters NA-1/NA-10 meetings, and others.

SRNS Leadership demonstrated a proactive initiative to strengthen Conduct of Operations this year. Rather than reacting to a series of operational upsets, SRNS sought to lay the foundational groundwork to institutionalize operational rigor. From benchmarking the team at Y-12 to the development of a new position to focus in on this area (SRTE Conduct of Operations Excellence Manager), these initial steps and follow on actions could be promising in sustaining a culture of disciplined operations. The SRNS Engineering Management team was instrumental in executing Module Stripper System (MDST) and Glovebox Stripper System (GBST) Open Glovebox Maintenance (OGM) outages. During the preparations for the outages, management stayed abreast of issues and involved in the decision-making process, which ensured that the engineers and the facility had their full support in order to execute both outages successfully.

During FY 2023, SRNS increased staffing by 10 percent and annualized attrition decreased by approximately 5 percent. Combining both lower attrition and increased hiring, SRNS ended FY 2023 with the highest headcount growth since FY 2019, with an increase of over 600 full-service employees. SRNS growth in critical skill areas drastically improved in FY 2023 with Engineering at 100 percent of target headcount and IT at 99.4 percent of target headcount.

SRNS implemented the Strive for Five initiative to focus on retaining the population of employees with 0-5 years of site experience. This initiative includes Skip Level Meetings, Stay Interviews, and Retention Roundtables.

In FY 2023, SRNS focused on the increased hiring and staffing demands as NNSA missions continued to grow, further increasing competition for a highly skilled and qualified workforce across the Nuclear Security Enterprise. SRNS maintained a headcount of 97 percent against the targeted goal of 97 percent for FY 2023. SRNS implemented strategic hiring practices to backfill positions and executed a constant state of hiring readiness based on mission requirements. SRNS reinforced the workforce pipeline with 344 total registered apprentices. Approximately 10 percent of all registered apprentices were from S.C. counties targeted for economic opportunity. SRNS participated in several career fairs and hiring events and provided information about careers at SRS to over 300 people in rural areas, such as Barnwell and Allendale counties.

APPENDIX A – Acronyms and Definitions

Acronym	Definition
ACE	Advancing ConOps Excellence
AM	Additively Manufactured
AWE	Atomic Weapons Establishment
BFA	Backfit Analysis
BYU	Brigham Young University
CBFO	Carlsbad Field Office
CAS	Contractor Assurance System
CCO	Criticality Control Overpack
CD	Critical Decision
CLWDR	Co-Located Worker Dose Reduction
CM	Construction Management
ConOps	Conduct of Operations
CTF	Combined Tritium Facilities
CY	Calendar Year
DIMS	Digital Imaging and Measurement System
D&D	Decommission and Deactivation
D&R	Dismantlement and Removal
ECF	Entry Control Facility
EDM	Electron Discharge Machining
EDP	Enhanced Dilution Process
EHHS	Environment, Health, Safety, and Security
EM	Environmental Management
EMDI	Enhanced Mission Delivery Initiative
EPC	Engineering, Procurement and Construction
ESSH	Environmental Stewardship, Safety and Health
FAR	Federal Acquisition Regulation
FPU	First Production Unit
FSS	Fire Suppression System
FY	Fiscal Year
GBST	Glovebox Stripper System
GTS	Gas Transfer System
HANM	H-Area New Manufacturing
HAOM	H-Area Old Manufacturing
HCN	Hot/Cold Nitrogen

He-3	Helium
HFTOC	High-Fidelity Training Operations Center
HP	Health Physics
IDMS	Integrated Data Management System
IAEA	International Atomic Energy Agency
ICM	Ion Current Measurement
IH	Industrial Hygiene
ITS	Issue Tracking System
KCNSC	Kansas City Nuclear Security Complex
KTP	Knowledge Transfer Program
LANL	Los Alamos National Laboratory
LEP	Life Extension Program
LL	Lessons Learned
LSP	Life Storage Program
LWT	Legal Weight Transport
M&O	Management and Operating
MAR	Material-At-Risk
MC&A	Material Control and Accountability
MDST	Module Stripper System
MET	Matrix Evaluation Team
MFO	Management Field Observation
MTC	Machine Training Center
NCR	Nonconformance Report
NEST	Nuclear Emergency Support Team
NNSA	National Nuclear Security Administration
NPDES	National Pollutant Discharge Elimination System
NSE	Nuclear Security Enterprise
NWP	Nuclear Waste Partnership
OFI	Opportunity for Improvement
OGM	Open Glovebox Maintenance
PEMP	Performance Evaluation and Measurement Plan
PER	Performance Evaluation Report
PISA	Potential Inadequacy in Safety Analysis
PISP	Performance Improvement and Sustainability Plan
PDRD	Plant Directed Research and Development Program
PMP	Planned Maintenance Period

Pu	Plutonium
PUR	Purchasing Action Under Review
QA	Quality Assurance
QAS	Quality Assurance Survey
RAISIN	Reservoir Archive and Integration Surveillance Information Network
RAPTOR	Rapid Analysis Promulgated to Obtain Results
RAR	Risk Assessment Reports
RCM	Reliability Centered Maintenance
RFP	Request for Proposal
RP	Radiation Protection
SBD	Safety Basis Documents
SC	Significance Category
SD	Supplemental Directive
SIOA	Security Inspector Operational Area
SME	Subject Matter Expert
SNOPR	Supplemental Notice of Proposed Rulemaking
SPD	Surplus Plutonium Disposition
S&S	Safeguards and Security
SSC	Systems, Structures, Components
SRFO	Savannah River Field Office
SRPPF	Savannah River Plutonium Processing Facility
SRNL	Savannah River National Laboratory
SRNS	Savannah River Nuclear Solutions, LLC
SRS	Savannah River Site
SRTE	Savannah River Tritium Enterprise
STAR	Site Tracking Analysis and Reporting
STCS	Seismic Tritium Confinement System
TCAP	Thermal Cycling Absorption Process
TEF	Tritium Extraction Facility
TFF	Tritium Finishing Facility
TMO	Tritium Maintenance Organization
TPBARS	Tritium Producing Burnable Absorber Rods
TRC	Total Recordable Cases
TRMSA	Transport Remotely Monitored Sealing Array
TRU	Transuranic Waste

TSR	Technical Safety
WDD	Weapons Dismantlement and Disposition
WIPP	Waste Isolation Pilot Plant
WPI	Work Pending Inventory
WQA	Weapons Quality Assurance
ZN	Zinc