National Nuclear Security Administration

Savannah River Nuclear Solutions, LLC

Performance Evaluation Report (PER)

NNSA Savannah River Field Office (SRFO)

Evaluation Period:
October 1, 2021 –
September 30, 2022

December 8, 2022

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Department of Energy review required before public release.

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Date: October 14, 2022
Guidance: Exemption 5

Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration (NNSA) assessment of Savannah River Nuclear Solutions, LLC (SRNS), performance of the contract requirements for the period of October 1, 2021 – September 30, 2022 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. 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 a M&O Contract for Fiscal Year (FY) 2022. This is a Department of Energy Office of Environmental Management (DOE-EM) contract under which NNSA-funded and -directed work is performed.

*Note: SRNS's performance for Fiscal Year FY 2022 on NNSA efforts is measured against the NNSA Corporate PEMP. The NNSA Corporate PEMP consists of six Performance Goals supplemented with Objectives and Key Outcomes for each Goal. Fee is distributed among the six Goals as specified in the PEMP. For SRNS, Goals 3 and 4 are not applicable and therefore have no associated fee. The work measured against the NNSA Corporate PEMP is discussed under Goals 1 through 6 below.

SRNS earned an overall rating of Very Good during this performance period. SRNS earned Excellent ratings for Goals 1, 2, and 6, and a Very Good rating for Goal 5. Specific observations for each Goal are provided in the following pages.

Goal 1: Mission Execution: Nuclear Weapons ($19,034,846 At-Risk Available)

Under this goal, SRNS earned a rating of Excellent, and $18,083,104.00 of the award fee allocated to this goal with a percentage of 95 percent. SRNS exceeded almost all the Objectives and Key Outcomes under this Goal, and is generally meeting the overall cost, schedule, and technical performance requirements of the Contract in the aggregate. During this period, the accomplishments significantly outweigh issues, and no significant issues in performance exist. SRNS is meeting performance expectations within expected cost.

Major Accomplishments:

- SRNS completed its first several shipments of B61-12 gas transfer assemblies to the U.S. Air Force and is on schedule to support Program Control Document requirements.
- SRNS participated in the Producibility Working Group led by NNSA. All Gas Transfer System (GTS) products at SRNS are currently at level "B". This has been reported at both Boost Gas Transfer System (BGTS) and work Gas Transfer System (wGTS) reviews and gates, led by the design agency.

Throughout the fiscal year, SRNS faced difficulties with fluctuations in staffing based on COVID-19 effects and attrition. SRNS provided continuous improvement through implementation of measures for improving production capabilities. This was attained through pivoting to meet emerging needs in the areas of production and shipping with relation to schedules to meet the needs of the Department of Defense (DoD) customers. In doing so, SRS demonstrated both resilience and responsiveness with marginal impact to facility operations in the continued support of limited life components (LLC) production.

SRNS had no unsatisfactory reports, incoming material reports, or shipped material reports during this reporting period. SRNS has consistently demonstrated this level of significant quality performance since 2015.

SRNS coordinated and worked with NA-192 and Tennessee Valley Authority to make modeling and analysis adjustments to aid in the formulation of a working plan to address Tritium-Producing Burnable Absorber Rod shipment delays in support of maintaining adequate tritium supply.

From May through late August, SRS performed open glove box maintenance to modernization facility infrastructure for future mission objectives. During this period equivalence testing was paused. Prior to the pause, SRNS exceeded all lead time metrics for reservoir processing, loading, finishing, and packaging.

The Plant Directed Research and Development (PDRD) program met expectations. SRNS hosted a FY 2022 PDRD program review to share the progress and accomplishments achieved by the SRS projects with the NNSA enterprise PDRD community and to begin discussions on next year's portfolio. SRNS adequately executed all ten Research and Development projects for the fiscal year.

SRNS loaded/processed early development reservoirs in support of future LLC exchange efforts. The units produced were shipped to laboratories for testing and disposition. Additionally, reservoirs were received from the DoD customer to begin the process of conversion in support of the trainer refurbishment endeavors. A product shortfall for a War Reserve (WR) legacy material was evaluated. A replacement material was procured from a vendor and a production lot underwent inspection. SRNS continued to support the Life Extension Program work for the B61-12 program.

The Multi-Weapon System Federal Program Manager was briefed on the history and continued need of procurements within his program for Directed Stockpile Work to understand the financial profile for LLC, Limited Life Component Exchange (LLCE) and LEP programs. This meeting was held to lower risk to achievement of First Production Unit and facilitate improvement in end user Final Operations Capability execution. SRNS developed and issued the SRS GTS surveillance capability analysis, which outlined its ability to meet the stockpile surveillance mission and address possible equipment and personnel risks of mission impact. In addition, SRNS met its Level 2 production site milestone to issue a multi-weapon systems/surveillance program plan. Both accomplishments demonstrate the continued ability to support the stockpile modernization program mission. SRNS participated in the Producibility Working Group led by NNSA. All GTS products at SRNS are currently at level "B". This has been reported at both BGTS and wGTS reviews and gates, led by the design agency.

SRNS supported program goals and milestones for the Plutonium Modernization program. SRNS met milestones by establishing an Operator Representative function for design maturation in the Design Authority organization; updated the staffing plan and staffing dictionary; issued the Savannah River Plutonium Processing Facility (SRPPF) Weapon Quality Management System Plan; and issued a plan to address classified computing and workspace.

SRNS collaborated with Los Alamos National Laboratory (LANL) to establish NNSA's ability to produce at least 80 pits per year. Knowledge Transfer personnel presented on-site briefings to project and program personnel regarding their experiences at LANL on various process topics. The personnel helping LANL will be an asset in the future for Savannah River production. SRNS received LANL concurrence on the Mutual Support Program Plan outlining the control arrangements for SRNS to provide mutual support to pit production activities at LANL. SRNS, in collaboration with LANL, procured additional lathes that have been installed at Savannah River.

Goal 2: Mission Execution: Global Nuclear Security ($2,959,577 At-Risk Available)

Under this goal, SRNS earned a rating of Excellent and $2,693,215.00 of the award fee allocated to this goal with a percentage of 91 percent. SRNS exceeded almost all the Objectives and Key Outcomes under this Goal, and is generally meeting the overall cost, schedule, and technical performance requirements of the Contract in the aggregate. SRNS achieved many accomplishments that significantly outweigh performance issues. SRNS generally met performance expectations within expected cost and with no significant issues.

SRNS supported transport planning and receipt activities for the combined Category I and III shipment of nuclear material from Japan as well as technical support for future shipments of spent nuclear fuel from Canada and Japan.

SRNS made substantial progress on downblend operations this year by completing 3,013 equivalent downblends, which was above the required number.

SRNS demonstrated outstanding performance in developing the initial K-Area Complex (KAC) Surplus Plutonium Disposition (SPD) Packaging and Transportation Model. SRNS issued the startup authorization letter for shipments from the KAC and Storage Pad. SRNS successfully placed the KAC and Storage Pad minor construction project in service on April 13, 2022. SRNS did an outstanding job maintaining cost within the project limits and successfully completed the project in time to support near-term shipment goals. The Characterization and Storage Pad minor construction project has completed financial closure and submitted for final project capitalization/closure. SRNS also completed shipment readiness activities on the pad, demonstrating its readiness to begin shipments to the Waste Isolation Pilot Plant (WIPP) once Carlsbad Field Office (CBFO) approval of the certification program is received.

SRNS K-Area personnel successfully developed two separate Simio process models, one for the K-Area Interim Surveillance (KIS) and one for Critical Control Overpack (CCO) Pad Operations. Both were demonstrated on July 11, 2022.

SRNS made progress on the two Entry Control Facility (ECF) minor construction projects:

- ECF-3 – The vendor completed fabrication of the building. SRNS placed the building on the concrete slab and completed the grout/tile floor. Construction rework was required for portions of the electrical installation due to design/construction errors. Preparations for startup testing (development of functional acceptance criteria and testing procedures) continue.
- Material Access Area ECF – Design and procurement continue. Fabrication of the security inspector operational area continues. Field work for the K-Area discards scope of work began.

SRNS developed and demonstrated a packaging and transportation model for plutonium disposition activities across the complex. SRNS coordinated the successful completion of Transport Remotely Monitored Sealing Array (TRMSA) Phase 1 road tests and conducted additional road tests. SRNS completed the infrastructure upgrade and TRMSA equipment installation at DOE Headquarters. TRMSA project activities were delayed due to multiple issues with component installation, field testing, and component performance.

SRNS supported integration efforts with CBFO, Nuclear Waste Partnership, DOE-EM and, NNSA regarding the certification of the K-Area Transuranic (TRU) waste program in efforts to initiate the first shipment of defense TRU waste containing diluted surplus plutonium oxide.

SRNS successfully installed the new dissolver and bi-cell supporting the Fast Critical Assembly (FCA) disposition mission. The FCA project team remained under budget and on schedule.

SRNS completed the annual update of the SPD Safeguards and Security Campaign Plan ahead of schedule which will allow the reviews/concurrence and approvals to be obtained by the end of the calendar year, four months ahead of last year's update.

SRNS completed development of the FY 2022 plutonium liability estimate and transmitted to NNSA. SRNS supported NNSA in planning for International Atomic Energy Agency verification protocol. SRNS supported an Analysis of Alternatives for pit disassembly and processing, including Critical Decision (CD)-1 planning.

SRNS issued a CCO procurement white paper. The timeliness of this report allowed for the proper procurement strategy for FY 2022. SRNS successfully supported the CBFO audit of the K-Area CCO Characterization and Certification program resulting in only four actions for Centralized Characterization Program to be corrected.

SRNS began an analysis of KAC commodity needs. This analysis will be used to determine if there is a need for a commodity center to support the SPD Program. SRNS supported Battelle Savannah River Alliance (BSRA) in the development and delivery of the first Automatic Guided Vehicle (AGV-1) in support of the K-Area six-year automation plan.

SRNS supported the Strategic Laboratory Assessment (SLA) activities. SRNS personnel helped to coordinate and approve the successful SLA KIS Glovebox Holdup Imaging Demonstration that was conducted during the inventory period for the KIS Glovebox. The outcome of the demonstration showed great promise in support of future SPD operational, radiological, and Material Control and Accountability activities.

Staffing shortages have been realized in multiple organizations impacting the SPD Program. Staffing concerns appear to be growing and are in need of focused attention to ensure the mission can be met in the future.

SRNS provided effective radiological monitoring operational support to the Nuclear Emergency Support Team's (NEST) response to Russia's War on Ukraine. SRNS also provided interagency support to Counterterrorism Operations Support, Federal Bureau of Investigation/Stabilization Program and Hazardous Device School, Augusta University Medical Center, South Carolina State Law Enforcement, South Carolina Department of Health, Defense Threat Reduction Agency, Naval Air Station Jacksonville, the Office of Secure Transportation, U.S. Navy, and the NNSA Offices of Defense Nuclear Nonproliferation and Counterterrorism and Counterproliferation through exercises, training, and planning activities.

Goal 3: DOE and Strategic Partnership Projects Mission Objectives

This goal is N/A for the NNSA Performance Evaluation and Measurement Plan.

Goal 4: Mission Execution: Science, Technology, and Engineering (ST&E)

This goal is N/A for the NNSA Performance Evaluation and Measurement Plan.

Goal 5: Mission Enablement ($13,196,654 At-Risk Available)

Under this goal, SRNS earned a rating of Very Good, and $10,293,390.00 of the award fee allocated to this goal with a percentage of 78 percent. 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. SRNS was successful in its performance under this contract as described below and is meeting most performance expectations within expected cost. SRNS's accomplishments greatly outweighed issues and no significant issues in performance exist.

The SRNS Environmental Stewardship, Safety and Health (ESSH) organization continued to meet expectations, overall. SRNS personnel experienced four Total Recordable Cases (TRCs), and 16 first aid cases. Considering the increased level and complexity of work, these numbers are equivalent to previous year performance. SRNS Health and Safety subject matter experts provided input into the design of the Tritium Finishing Facility (TFF) and supported construction activities in the modernization of the ventilation for the Metallurgical Laboratory, 234-7H.

SRNS Health Physics (HP) and Radiation Protection continued to perform as expected and responded expeditiously to an emergent event involving zinc-65 (Zn-65) and coordinated with all stakeholders including Operations, Maintenance, and Savannah River National Laboratory (SRNL) to determine the root cause and ensure no unanticipated migration. Environmental compliance and waste programs continued to meet expectations with no significant concerns or areas of improvement to report. SRNS maintained compliance with National Pollutant Discharge Elimination System effluent requirements at the H-02 outfall station. SRNS provided outstanding technical support to the HP-50 Low pH War Room which included coordination of effluent sample testing with SRNL.

SRNS Weapons Quality Assurance (WQA) Management leadership successfully executed WQA activities and supported multiple WQA initiatives within their site. SRNS continued to effectively implement DOE O 414.1D and NQA-1. The SRNS "NNSA Capital Projects" organization continued to develop additional systems and procedures to effectively implement NQA-1 requirements for the large NNSA capital line-item projects.

SRNS successfully executed tritium enterprise small projects. Some improvements were made in project execution. SRNS executed the Capabilities Based Investments project portfolio in accordance with the 2022 NA-194 Implementation Plans and Site Execution Plans. SRNS executed small projects within cost and technical performance requirements and improved performance compared to prior years. SRNS small projects exceeded its goal and reached 51

percent of the Recapitalization project spending. 37 of the 38 FY 2022 Recapitalization G2 milestones were met on or ahead of schedule. SRNS executed four oxygen monitor replacement small projects, slated to begin in FY 2023, at an accelerated rate in FY 2022.

SRNS made progress towards the planning of the six Hot and Cold Nitrogen (HCN) Thermal Cycling Absorption Process (TCAP) Calendar Year 2025 (CY25) Outage projects. Final design for half of the projects was completed and a Basic Ordering Agreement (BOA) for compressors and valves final design was awarded. The procurements for the cryogenic valves, chillers, columns, and beds were awarded and gate reviews of project progress began.

SRNS successfully procured and established the exhaust fans, diesel generator, and electrical equipment; and Building 234-7H exhaust ventilation system. Execution of these activities enabled SRNS to finish its 50 percent completion G2 milestone ahead of schedule. SRNS successfully completed installation of four motor control centers (MCC), automatic transfer switches (ATS), fan control cabinet, cable trays and runs for the Building 234-H MCC Replacement project.

The FY 2022 Physical Inventory of Material Balance Area H-Area Tritium Facilities was completed for all of the process buildings and exceeded all performance requirements for the conduct of an inventory.

While SRFO continues to monitor Conduct of Operations (ConOps) performance, overall performance in this area was satisfactory in FY 2022. Key mission deliverables continue to be met, three major open glovebox maintenance outages were successfully performed, and two extractions for FY 2022 were completed.

The Tritium Maintenance Organization (TMO) supported the Tritium Facilities effectively throughout the year: effectively planning and supporting three major Open Glovebox Maintenance (OGM) outages that improved facility reliability and infrastructure. Major program improvements in management of priority work reduced the average number of open high priority work requests by 50 percent. Task readiness initiatives resulted in a significant improvement in Material Request cycle times, and a 76 percent decrease in Pressure Safety Valve deferrals. Additionally, TMO executed a concerted effort at Corrective Maintenance (CM) backlog reduction, reducing the CM backlog from a high of 11,826 hours at its peak in June 2020 to under 5,000 hours currently, the lowest level since 2015.

SRNS engineering supported several efforts to prepare for TEF OGM for the Glovebox Stripper System (GBST). In addition, engineering supported preparations for the Module Glovebox Stripper System (MDST) scheduled for 2023 and pursued multiple paths in order to prepare for the outage. Engineering has also worked on long-term plans for both GBST and MDST to install a new stripper blower design as part of a design change. Engineering continued working with SRNL and a vendor to improve TEF cutterhead performance.

Engineering worked on TEF Extraction system Zn-65 issue where post extraction surveys detected the presence of Zn-65 in areas not expected. Engineering, Operations, Radiation Protection and SRNL worked together to understand the hazards associated with Zn-65 and

established short-term, mid-term, and long-term actions to mitigate further migrations of Zn-65 within the extraction process systems and proposed no delay in the extraction schedule.

Engineering also worked on multiple Defense Nuclear Facility Safety Board (DNFSB) requests including the request for a response on System Health Monitoring for Safety Significant Glovebox Oxygen Monitors in Tritium.

SRNS resolved all SRFO essential and suggested comments on the Tritium Facilities (TF) and TEF safety basis (SB) changes in FY 2022. The major changes were: Revised Fire Suppression System Limiting Conditions for Operations, and the following Specific Administrative Controls: Explosion Prevention Program, Open Glovebox Maintenance Vessel Pressure/Deflagration Controls, and Empty Container Verification Controls. The implementation for both the TF and the TEF SB FY 2022 changes were completed on schedule. SRNS acknowledged concerns raised in the DNFSB letters on both the 296-H Tritium Stack Structural Review and the Observations Related to the Inadvertent Tritium Release Event.

SRNS initiated an evaluation to identify potential projects for in the Energy Resilient Infrastructure and Climate Adaptation program. SRNS supported the Cooling and Heating Asset Management Program and Roof Asset Management Program projects that worked on roof replacements. Roofs 232-H and 264-H were successfully repaired/replaced in July 2022 and project was closed out in August 2022.

236-H deactivation and demolition experienced significant delays impacting the disposition portfolio, additionally SRNS failed to provide timely status reporting to adequately inform decision making.

Energy Independence and Security Act Annual Energy Audit Reports for three buildings (249-H, 264-1H, and 264-H) were successfully completed in FY 2022.

SRNS demonstrated effective financial management, including a review of cost allocation practices for business unit overhead and development of cost share scenarios. These actions enabled SRNS to align cost more appropriately for both capital and operating scope.

SRNS legal provided substantial assistance and invoked best legal practices during discovery of the false claims act litigation involving MOX. These discovery efforts were efficiently and effectively managed, which contributed to an avoidance of court sanctions, and assisted the Government in reaching a full and final settlement with MOX.

SRNS Cybersecurity/Information Technology (IT) completed the decommissioning, sanitization, and destruction of MOXnet in July 2022. The Chief Information Officer established and maintained the Governance Review Board that fulfilled the Federal Information Technology Acquisition Reform Act Requirements for all NNSA SRFO IT acquisitions.

The SRNS Emergency Management staff conducted the first evaluated site exercise in 3 years. Tritium was selected as the site for the exercise in large part due to their preparedness and qualifications that were maintained throughout the pandemic. The exercise was evaluated and

observed by NNSA and DOE Headquarters teams as well as the DNFSB (both local and Headquarters) and numerous SRNS, DOE-SR and NNSA-SRFO senior leadership.

The quality of subcontract consent packages including market research and sole source documents submitted to NNSA need to improve. SRNS supply chain management also needs to integrate early with technical and project management staff to support mission success.

SRNS continued to progress on design performance of the SRPPF project but not at the rate as planned. While some of the FY 2022 design performance issues have been outside of SRNS control (e.g., NNSA program requirements changes and availability of technical resources), those within SRNS control include less than satisfactory performance in design integration and management, design authority requirement definition and oversight and delays in key design input and verification activities such as technology integration, Reliability, Availability, Maintainability, and Inspectability (RAMI) and performance based design. Improvements are needed in operations and maintenance functions in support of design execution and construction planning for system turnover and operation transition. In the area of Nuclear Safety, progress was made in developing a revised Consolidated Hazards Analysis to address NNSA comments. Progress was also made to address DNFSB questions and comments on the safety-in-design aspects of the project. In addition, many preliminary Nuclear Criticality Safety Evaluations have been revised or developed to support the preliminary design phase of the project. In the area of fire protection, SRNS continued to struggle in submitting the performance-based design contract and did not achieve that goal by the end FY 2022. SRNS struggled to develop a position to obtain a compliant glovebox fire suppression system and failed to establish an acceptable path forward by the end of FY 2022.

Project Y786, Electronic Safeguards and Security System Replacement and Argus System Implementation for TEF overcame an eight-week construction suspension due to COVID-19 impacts and completed construction and turned over to Operations. Project Y757, Tritium Argus Responsive Maintenance (TARM) experienced a funding shortfall for seven months, based on a previously submitted SRNS Class 3 estimate to complete the Project. This estimate omitted $1.6 million (M) of scope ranging from additional design scope and functional/project support costs to previously unaccounted for construction support costs and an increase in the direct hire hourly work rate. SRNS and SRFO partnered to mitigate the challenge. Final design was completed for the scopes, material procured, and field work began in September 2022 in 720-H. SRNS collaborated and kept SRFO engaged, involved, and informed in the TARM Project progress and refined the Y757 Argus products. Feedback was provided regarding the NA-70 and NA-19 Argus Tritium monthly reports which was addressed quickly.

SRNS completed all five milestones that SRFO set forth in FY 2022 for the Co-Located Worker Dose Reduction (CLWDR) efforts. SRNS also completed the Evaluation of Metal Tritide Inventory Distribution CLWDR Activity and issued the associating report to enhance the characterization of Material-at-Risk for Loss of Confinement events.

SRNS project management and design performance has been inadequate on the SPD Project, increasing the overall project design costs $108M, extending the CD-2/3 approval from March

2023 to April 2024, and requiring a baseline change. Additionally, a February 2022 external review identified issues with the SPD project integration of nuclear safety into design, primarily associated with safety control strategy with fire protection and ventilation systems. As of the end of the fiscal year, SRNS has yet to adequately document and resolve these findings. The cost and schedule to implement the nuclear safety corrections (during design or construction) have not yet been identified and will be in addition to the earlier change.

SRNS design management and integration has been less than adequate for the SRPPF Project. The overall project design has continued to slip every month following May 2022 Design Performance Measurement Baseline submittal. The SRNS July 2022 Merrick 60 percent process design review identified multiple design integration issues in many of the process rooms. The resolution of these issues are required prior to moving forward with the full design. Additionally, in FY 2022, NNSA identified multiple issues associated with technology integration, fire protection performance based design and RAMI analysis that continue to be open and causing increased project risks. Additionally, SRNS failed to provide, multiple times, an acceptable document identifying the inputs and assumptions of the SRPPF throughput model. SRNS committed to providing this document as mitigation to delays in inputting equipment reliability data into the SRPPF throughput model.

SRNS maintained the TFF Project on schedule and slightly under budget. SRNS completed all seven Implementation Plan milestones on or ahead of due dates. SRNS met the milestones on or ahead of schedule, all of which pertain to achieving engineering and design performance milestones.

SRNS continued to successfully implement a waste program on-site, and supported waste efforts off-site, in accordance with current mission objectives. This included successfully packaging and safely transferring radiological, non-radiological, and universal waste containers to appropriate site facilities for disposition. In addition, Classified Media Destruction for weapon material and component waste was effectively implemented and managed by SRNS, with disposal on-site.

Goal 6: Mission Leadership ($8,797,769 At-Risk Available)

Under this goal, SRNS earned a rating of Excellent, and $8,005,970.00 of the award fee allocated to this goal with a percentage of 91 percent. 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 was successful in its performance under this contract as described below and is meeting most performance expectations within expected cost. SRNS's accomplishments significantly outweighed issues and no significant issues in performance exist.

SRNS management demonstrated a collaborative and cooperative working relationship with SRFO in efforts to resolve a reported funding shortfall for Project Y757 (Tritium Argus Responsive Maintenance Project) due to additional design scope, functional/project support costs, construction support costs, and an increase in the direct hire hourly work rate. SRNS was able to

complete final design for the addition of the Balanced Magnetic Switches scope, procure needed materials, and conduct activities necessary to initiate field work in FY 2022 (e.g., pre-job briefing held).

The SRS 2022 Strategic Plan for NNSA was submitted, through a SRNS collaborative effort with SRNL that aligns with the NNSA Strategic Vision. The Plan supports the increased need in tritium for stockpile use, the continued need to eliminate plutonium from South Carolina in accordance with nonproliferation effort and prepares for the expanding mission of WR pit production. The Plan outlined challenges faced by SRS and the Nuclear Security Enterprise to include maintaining a trained and qualified workforce, information technology, and a trusted supply chain. It also prepares for mission rightsizing between DOE-EM and NNSA, including infrastructure independence, workforce evaluation, and mitigation of risks.

SRNS fostered a healthy Nuclear Safety Culture through the judicious use of corporate independent evaluation boards, independent verification reviews, and frequent and candid interaction with all disciplines of oversight.

SRNS effectively used reachback employees to monitor the IT/Cyber budgets and successfully met established goals with minimal carryover. SRNS made available a distinguished management consultant to help establish and foster a culture of transparency and improve communication with the Government.

SRNS continued weekly Improving Project Performance meetings and efforts to resolve issues hindering project performance. The decision to increase available design engineering resources through utilization of BOA contractors and the development of a path forward for the installation design of mass spectrometer 5 was an example of measurable and sustainable improvements.

SRNS provided continuous learning opportunities and demonstrated improvements for developing its staff. New training programs were provided to improve professional excellence in performing roles and responsibilities, such as Institute for Nuclear Power Operations training on Traits of a Healthy Nuclear Safety Culture, and hands-on Human Performance training for operators. SRNS implemented new worker development programs for personnel to learn and grow professionally such Greet the Green, Advancing ConOps Excellence (ACE), and Total Worker Health programs.

SRNS exhibited improved self-reliance in the management of its responsibilities as a result of the COVID-19 pandemic. This led to an enhanced governance posture and improved performance.

SRNS instituted several initiatives to minimize operational upsets. This included the development of the ACE team which seeks to identify opportunities to enhance conduct of operations from ideas proposed by the workforce and the “Greet the Green” program which recognizes new operators and provide additional mentorship to reduce the likelihood of errors due to inexperience. SRNS has also placed more emphasis on operations leadership development from Shift Operations Managers to Shift Managers. This is to ensure that high standards set by the senior management team flow down through the operating staff. While SRFO has seen benefits of these initiatives, the Field Office will continue to monitor and ensure these

improvements are institutionalized.

SRNS demonstrated some improvement in the planning and execution of small projects. The goal of 51 percent Recapitalization funding used was reached; 38 of the 39 FY 2022 G2 milestones were completed on or ahead of schedule; nine FY 2023 G2 milestones were achieved in FY 2022; and upgrade of the Argus security system in the TEF was completed. SRNS continued efforts to modernize the tritium facilities by initiating three mass spectrometer replacement projects and two scanning electron microscope projects were begun. In addition, final design for three projects and award of procurements for the HCN/TCAP CY25 Outage projects were completed.

SRNS demonstrated good leadership in the management, planning and execution of line-item projects at SRS. All SRS projects continued to progress the design activities and support planning and approvals for early construction activities in FY 2023. Nonetheless, understanding there were impacts resulting from NNSA directed changes, SRNS was challenged to define project performance baselines and provide quality transparent analysis, reporting and responsive corrective actions. SRNS continued to be challenged in defining, documenting and controlling the project's technical basis and requirements. There continued to be delays in key design inputs and design validation activities causing increased project performance risk to the design maturation and potential for rework. There continued to be resource issues and movement or loss of key project personnel across SRS projects causing impacts to the projects. NNSA identified multiple quality issues with SRNS processes and deliverables. Further improvement in quality assurance and contractor assurance assessments is needed to self-identify issues. Continuing to identify and institutionalize lessons learned from other DOE, NNSA or Commercial engineering, procurement and construction activities is needed to further improve execution. SRNS continued to proactively work with Headquarters, LANL, Y-12 National Security Complex, and other sites and this will need to continue to support the overall project and program performance baselines.