

Savannah River Site Office

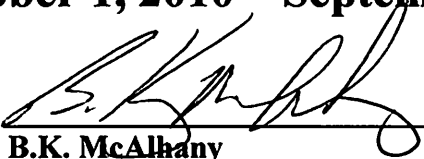
Year-End Performance Evaluation Report of

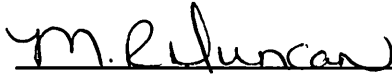
Savannah River Nuclear Solutions, LLC

Contract No. DE-AC09-08SR22470


for Performance Period

October 1, 2010 – September 30, 2011

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Executive Summary

Work within the Tritium Facilities at the Savannah River Site is performed by Savannah River Nuclear Solutions (SRNS) under Management and Operating Contract #DE-AC09-08SR22470. This is an Office of Environmental Management contract under which NNSA-funded and directed work is also performed. For FY11, SRNS was under an Award Fee format with all fee “at-risk”. This report covers the October 1, 2010 – September 30, 2011 incentive based performance period.

The SRNS Performance Evaluation Plan contains eight basic contract outputs for the management and operation of the Tritium Facilities. The NNSA’s Savannah River Site Office (SRSO) worked with SRNS to develop which objectives were required to successfully meet these outputs and agreed on which metrics were appropriate to adequately assess acceptable performance.

The SRSO feedback process utilizes the *PsViews* software package to track and document contractor performance, as well as the SRSO evaluation of that performance, on a monthly basis. Monthly feedback meetings with SRNS were held throughout the performance period and SRNS was apprised of performance, favorable and unfavorable, in each area. Where performance was rated as unsatisfactory, SRNS was informed of the deficiencies and the impacts to the program. These reports were then formally transmitted to SRNS for appropriate action. The monthly feedback reports are provided as an Appendix, and are also available on the iPortal.

The SRNS performance received a recommended aggregate rating of Excellent with an aggregate score of 92. An overall summary assessment of each of the eight outputs is provided below. Detailed discussions are provided within each of the monthly reports. Note that outputs 1-4 are *objective*, output 5 is *multi-site*, and outputs 6-8 are *subjective*.

SRSO Assessment of Contract Output 1 (Objective):

Overall performance for this output was rated as Excellent.

The six focus areas within this output were Loading & Shipping, Reservoir Quality, Helium-3 Program, Classified Parts Reduction, Function Testing & Reporting, and Post-Function Testing.

SRNS met all requirements for loading, packaging, and shipment of reservoirs per SRSO directives and schedules for the year with the exception of the month of April. Failure to follow procedures resulted in a H1616 container being shipped with an expired certification. The container was returned without being delivered and as a result, a shipment was not satisfactorily completed. Failure to meet this goal for the one month resulted in a fee reduction of \$72,551. The Cost of Non-Conformance was below the monthly goal of less than 1.75% during the period. The actual annualized rate was 0.05%

which was a significant improvement over last year's rate of 1.30%. Processing of Helium-3 gas continued as needed with no adverse impacts on the mission. SRNS successfully completed the packaging and disposal of 2,634 legacy classified parts. This effort, combined with that of FY09 and FY10, has reduced the backlog to a point where it is now manageable without specific additional incentive.

SRNS satisfactorily completed all requirements and commitments related to the reservoir surveillance program. SRNS exceeded the goal of 140 function test equivalents (151.85 equivalents completed) and all test data was satisfactorily documented in RAPTOR and RAISIN reports, as required. Destructive examinations were performed on 30 Life Storage Program units and the results were documented.

SRSO Assessment of Contract Output 2 (Objective):

Overall performance for this output was rated as Excellent.

Performance during Responsive Operations (RO) continues to improve each year as the facility gains more experience in transitioning between operational modes. From FY10 to FY11, SRNS achieved a 6% reduction in average staffing required to operate the Tritium Extraction Facility. Extraction of Cycle 9B tritium-Producing Burnable Absorption Rods (TPBARs) was completed and the facility was returned to the RO mode. The return to the RO mode allowed resources to be assigned to other work activities within the Tritium Facilities.

SRSO Assessment of Contract Output 3 (Objective):

Overall performance for this output was rated as Excellent.

Savannah River National Laboratory (SRNL) supported the Enhanced Surveillance stockpile aging annual assessment and developed a design and cost estimate for the enhanced fracture toughness test high-pressure hydrogen apparatus. SRNL also completed testing of the Zinc-65 filter configurations which validated the effectiveness of contamination control during TEF operations of extraction of TPBARs. SRNL also installed the next suite of Gas Transfer System diagnostics by developing an ultrasonic inspection method for the W76-0 reservoir. The most significant work was done in the Plant Directed Research and Development (PDRD) area with the mini and micro-Thermal Cyclic Absorption Process (TCAP) experimental units. The latest design of the micro-TCAP is more compact, easier to fabricate and maintain. SRNL has identified customers for the micro-TCAP and is marketing these which will assist in maintaining skill and core competencies at the site that are critical to mission sustainability and execution. The mini-TCAP system has a much smaller footprint requirement than the existing TCAP system and will be much more efficient to operate.

SRSO Assessment of Contract Output 4 (Objective):

Overall performance for this output was rated as Excellent.

All project milestones listed in this output were completed on or ahead of schedule. Projects completed included items such as H Area Old Manufacturing (HAOM) Remote Alarm Monitoring, Purge Stripper/Z-Bed Recovery (PS/ZR) Glovebox Piping Modification, Hydro Burst Relocation, and the He-3 Separation and Bottling Process. All of these projects, with the exception of the PS/ZR Glove box Piping Modification, supported the Tritium Responsive Infrastructure Modifications (TRIM) initiative by allowing consolidation of activities and moving into more efficient facilities.

SRSO/HQ Assessment of Contract Output 5 (Multi-Site):

Overall performance of this output was rated as Excellent.

This output was evaluated by NA-10 on an Enterprise level. NNSA-HQ analysis of the overall Enterprise performance on the Multi-Site Incentive was provided via e-mail on November 9, 2011 from NA-10.2. All multi-site incentives in which SRS was identified as being a contributor were successfully completed.

SRSO Assessment of Contract Output 6 (Subjective):

Overall performance for this output was rated as Very Good.

Within the Operations area, SRNS had many positive accomplishments including a successful extraction run at the Tritium Extraction Facility (TEF), and modification to the PS/ZR Stripper System in the H Area New Manufacturing (HANM). Facility availability was outstanding with outages being well planned and executed, causing minimal impact on the facilities. Actual facility availability was 98.5% versus the goal of >95%. Improvement was demonstrated in several of the Maintenance program performance metrics. Good progress was made in establishing a pipeline of operators to replace retiring staff. Quality was effectively managed with the initiation of a continuous improvement (CI) program. This CI program produced several improvement projects. The Engineering organization supported a number of efforts to improve facility operations and cost effectiveness. Nuclear Safety, Fire Protection, and Radiation Safety programs effectively enabled facility operations. The annual Safety Basis updates were submitted as required and final comments are being resolved to support issuance of the update. SRNS Tritium Programs took over all fire alarm system testing from the site fire protection group. This resulted in cost savings as those more familiar with the facility equipment and procedures now perform the testing.

Throughout the year NNSA noted instances of complacency, inattention to detail, and lack of rigor by the Operations, Engineering, and Maintenance organizations when executing procedures and implementing technical safety requirements. The year began with a TSR violation due to the inadequate performance of a TSR surveillance on a TAM

monitor. SRSO also noted an increase in the number of lockout/tagout errors. Contractor management worked to combat these issues and ensured they were aggressively addressed through various methods such as the CAMP process and Senior Supervisory Watches. Subsequently, SRSO noted a positive improvement in this area. Management focus to improve this facet of operations continued into the new fiscal year.

Responding to a program request, SRNS was also able to meet increased loading commitments to support the Reservoir Acceleration Program (RAP) without sacrificing safety. At the close of the year, SRNS had loaded all reservoirs and was ahead of schedule in finishing and packaging in order to ship 4 months' worth of reservoirs in a single month. SRNS managed this un-forecasted change well and balanced with the other items in the PEP.

SRSO Assessment of Contract Output 7 (Subjective):

Overall performance of this output was rated as Very Good.

Within the Health and Safety area, SRNS had many positive accomplishments. Implementation of the Integrated Safety Management System (ISMS) continued to be a program strength as evidenced by strong and effective execution in managing all Health and Safety program elements in accordance with applicable regulations, DOE Orders, and Site requirements. Employee involvement remained strong as evidenced by Behavior Based Safety (BBS) observations. The routine safety and housekeeping audits, walk-downs of chemical storage areas, and hazard assessment surveys all contributed to a strong health and safety program. SRNS continues to be recognized as a leader in the NNSA complex for the HPI program. There were no environmental or waste management issues noted during the year. SRNS ended FY11 with a Total Recordable Case (TRC) rate of 0.00. The last TRC occurred in October 2009.

Tritium Emergency Management initiated integrated Natural Phenomenon Hazard drills which included tornado and seismic drills. Tritium led the site in this significant effort and helped address DNFSB concerns after the Fukushima, Japan event.

SRNS was the first in the NNSA complex to implement the two finalized NNSA NAPs, *Information Protection* and *Physical Security*, and were active participants in complex-wide conferences providing input for the remaining draft NAPs. SRNS has significantly reduced classified holdings. In an effort to reduce the time and cost in support of the HSPD-12 re-key effort, SRNS provided a terminal within the Tritium Facilities for Tritium employees to utilize. Utilization of the terminal at the SRS Badge Office would have required each employee to travel approximately 8 miles (one way) and lose 1 - 2 hours of productive work time. Through the 3rd quarter of FY11, SRNS experienced a number of Incidents of Security Concern (IoSC), but put appropriate corrective actions in place to turn around the trend. After implementation of the corrective actions, there was only one IoSC for the remainder of FY11.

Within Cyber Security, SRNS completed the work needed to accredit systems pursuant to the NNSA NAPs guidelines and submitted several supporting documents. The quality of the work and completeness of the documentation was Very Good. SRNS did an excellent job on completing all data calls and supporting various NNSA headquarters initiatives.

SRSO Assessment of Contract Output 8 (Subjective):

Overall performance of this output was rated as Very Good.

SRNS maintained an effective Contractor Assurance System (CAS) during the rating period and made progress in transitioning the CAS into a Management Assurance System (MAS). SRNS continued to make progress in implementing the Governance Reform initiative and completed all planned FY11 activities. Completion of the CAS Self-Assessment and growing use of the transparency website are two significant accomplishments.

Fiscal management and budget execution generally met NNSA expectations and SRNS was responsive to the various budget scenario requests from NNSA HQ during the rating period. SRNS did an excellent job constraining spending and avoiding plant interruptions during multiple CRs over the first six months of the fiscal year. SRNS became proficient with the new Enterprise Portfolio Analysis Tool (EPAT) designed by HQ to assist NNSA in managing activities across the complex. In response to Site Office concerns, the SRNS Tritium Financial Group increased its involvement with the SRNS Chief Financial Officer Division (CFOD). The increased interaction improved SRSO awareness of accounting decisions made by SRNS which could have a negative impact on Tritium funding. The results of this effort were generally positive with more direct contact with CFOD. However, the year-end re-cost was a significant disappointment and serves as a clear indicator that continued work on communication within SRNS is required and an improved understanding of all cost assumptions underlying the SRNS cost forecasts is paramount.

SRNS continued to plan, manage, and execute Tritium programs effectively and provided strong support to SRSO and NNSA-HQ on countless requests for information. Due to projected long term budget scenarios, SRNS worked to plan and refocus the Tritium Responsive Infrastructure Modifications (TRIM) project to significantly reduce the need for line item funding. SRNS responded extremely well to an NNSA-HQ request to accelerate reservoir shipments in first two months of FY12. This required a substantial amount of work in the last two months of FY11 to plan then execute the effort. All Level 2 milestones were timely met with the exception of MRT 4053, complete Bulk Tritium Shipping Package Safety Analysis Report for Packaging Issuance of Offsite Transportation Certificate. This was completed about two months late but had no adverse impact on the mission as the UC609 certification was extended for five years. However, the reason for the missed milestone was wholly within SRNS control and spoke to a lack of attention to administrative details.

The SRNS project management team successfully completed all PBI milestones within the required completion dates. SRNS experienced two incidents mid-way through the fiscal year. The first involved the collapse of an electrical duct bank during backfill of an adjacent underground pipe trench. The second involved the severing of a static line for a 13.8 KV power feed due to a dump truck driver failing to lower the dump bed while driving forward. The SRNS response to these problems was commendable as it redoubled its emphasis on field oversight and paying attention to detail regarding subcontract work. In particular, SRNS modified protocol responsibilities of spotters during truck unloading activities. SRNS also held Pause meetings with project personnel to discuss construction issues. There were no repeat problems and SRNS completed other high hazard work in the facilities without any other safety, operations or Radcon issues.

The eSourcing requirement called for an implementation plan by the end of FY11 with implementation in FY12. However, SRNS determined it was more beneficial to begin implementation immediately. SRNS began using a Supply Chain Management Center contract to purchase lab supplies for SRNL, expanded the use of eSourcing to the rest of the contract and began to realize savings across the site, not just in Tritium, a year early.

Overall Summary

SRNS successfully completed all but one of its objective requirements which resulted in SRNS earning 98.3% of available fee. SRNS also worked with others in the NNSA complex on the Multi-Site Incentives which resulted in earning 100% of available fee. Within the subjective areas, SRNS managed and operated the Tritium Facilities and continued to meet mission requirements. This resulted in SRNS earning 87.27% of available fee and this effort is considered to be Very Good. Overall, SRNS ended the rating period earning 92% of available fee (subjective + objective + multi-site).