

United States Government**National Nuclear Security Administration (NNSA)****Savannah River Site Office (SRSO)**

Memorandum

DATE: **January 27, 2006**

REPLY TO

ATTN OF: SV (McAlhany, 803-208-8230)

SUBJECT: **Feedback and Improvement Assessment and Site Action Plan for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1 Commitment 25**TO: **T. P. D'Agostino, Acting Deputy Administrator for Defense Programs (NA-10), HQ**

Your letter of November 14, 2005, requested sites to perform a site assessment using the Feedback and Improvement (F&I) Criteria Review and Approach Document (CRAD) which was provided. Based on the results of this assessment, we were also asked to develop a site action plan to address any issues relative to F&I.

As you are aware, SRSO and the Department of Energy, Savannah River Operations Office (DOE-SR) both utilize Washington Savannah River Company (WSRC) to accomplish their work activities at the Savannah River Site. DOE-SR performed a detailed assessment of WSRC utilizing the F&I CRAD and provided a copy of their report and action plan to Environmental Management, EM-3. We have reviewed their report relative to WSRC Defense Programs operations and have no issues with their report relative to Objectives 1 and 2 of the CRAD. For Objective 3 of the CRAD, we performed an assessment of line management oversight utilizing prior assessment of SRSO activities by the Chief Defense Nuclear Safety. All F&I related issues from this review have been closed. As you are also aware, we are currently undergoing an assessment by the Office of Environment, Safety, and Health Evaluations, SP-44, and hope to leverage off this review also. Thus far there have been no major issues identified relative to SRSO operations, but the review is still on-going and a final report will not be issued until late February. Upon receipt of the final SP-44 report, a revision of our site action plan may be required. This approach has been discussed with Carl Sykes of your staff.



Richard W. Arkin
Manager

SV:BKM:sy

RA-06-0104

2 Attachments:

1. Attachment – SRSO Site Action Plan
2. Attachment – SRSO Site Assessment Report (w/attach)

cc w/attach:

X. Ascanio, NA-12

C. Sykes, NA-124

D'Agostino

- 2 -

January 27, 2006

bc w/attach
K. McAlhany, SRSO
SV File Copy, File Code: 1300

bc w/o attach
SV Reading File

Site Action Plan
F&I Commitment 25 – DNFSB Recommendation 2004-1

DNFSB Recommendation 2004-1 Implementation Plan

Site Action Plan

Commitment 25, Feedback and Improvement



Approved, Manager, Savannah River Site Office

Note: Change Control for this Site Action Plan (SAP) resides with the Site Office Manager, with a cc to NA-10.

Site Action Plan
F&I Commitment 25 – DNFSB Recommendation 2004-1

Objective 3

Judgment of Need #1

Correct items identified by external review groups and complete implementation of DOE Order 226.1.

Action	Deliverable(s)	Due Date	Owner / Org
Take action to close any items identified by SP-44 for SRSO Action.	Formally close out actions in HQ Corrective Action Tracking System.	9/30/06 (Subject to change pending final report)	R. Arkin/ Site Office Mgr.
Complete implementation of DOE Order 226.1.	None.	9/15/06	R. Arkin/Site Office Mgr

Responsible Manager: R. Arkin, SRSO Manager

Results of Assessment of the
Effectiveness of Feedback & Improvement Processes
at Savannah River Site Office

January 27, 2006

Performance Objective F&I-1: Contractor Program Documentation – Contractor Line Management has established a comprehensive and integrated operational assurance system which encompasses all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation.

Evaluation: Performance Objective partially met

Results:

See attached Savannah River Operations Office (DOE-SR) report to EM-3 dated January 18, 2006. As SRSO and DOE-SR utilize a common contractor with a single contract, a separate assessment was not performed by SRSO as the contractor utilizes the same manuals, processes and procedures site-wide.

Noteworthy Practices – None.

Judgment of Need: See DOE-SR report. (In summary, there was an Opportunity for Improvement identified. The objective was considered to be partially met since the contract was just recently changed (12/27/05) to incorporate DOE Order 226.1.)

Performance Objective F&I-2: Contractor Program Implementation

2.1 Assessments & Performance Indicators: Contractor Line Management has established a rigorous and credible assessment program that evaluates the adequacy of programs, processes, and performance on a recurring basis. Formal mechanisms and processes have been established for collecting both qualitative and quantitative information on performance and this information is effectively used as the basis for informed management decisions to improve performance.

Evaluation: Performance Objective fully met

Site Assessment Report
F&I Commitment 25 – DNFSB Recommendation 2004-1

Results:

See attached Savannah River Operations Office (DOE-SR) report to EM-3 dated January 18, 2006. As SRSO and DOE-SR utilize a common contractor with a single contract, a separate assessment was not performed by SRSO as the contractor utilizes the same manuals, processes and procedures site-wide.

Noteworthy Practices – None.

Judgment of Need: None

2.2 Operating Experience: The Contractor has developed and implemented an Operating Experience program that communicates Effective Practices and Lessons Learned during work activities, process reviews, and incident/event analyses to potential users and applied to future work activities.

Evaluation: Performance Objective partially met

Results:

See attached Savannah River Operations Office (DOE-SR) report to EM-3 dated January 18, 2006. As SRSO and DOE-SR utilize a common contractor with a single contract, a separate assessment was not performed by SRSO as the contractor utilizes the same manuals, processes and procedures site-wide.

Noteworthy Practices – None.

Judgment of Need: See DOE-SR report. (In summary, there was an Opportunity for Improvement identified relative to better screening of site problems/lessons learned for submission to the Site Lessons Learned Coordinator.)

2.3 Event Reporting: Contractor Line Management has established and implemented programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses.

Evaluation: Performance Objective fully met

Results:

See attached Savannah River Operations Office (DOE-SR) report to EM-3 dated January 18, 2006. As SRSO and DOE-SR utilize a common contractor with a single contract, a

Site Assessment Report
F&I Commitment 25 – DNFSB Recommendation 2004-1

separate assessment was not performed as the contractor utilizes the same manuals, processes and procedures site-wide.

Noteworthy Practices – See DOE-SR report. (In summary, Washington Savannah River Company was named as one of the 12 safest companies in America by Occupational Hazards magazine.)

Judgment of Need: None.

2.4 Issues Management: The Contractor has developed and implemented a formal process to evaluate the quality and usefulness of feedback, and track to resolution performance and safety issues and associated corrective actions.

Evaluation: Performance Objective fully met

Results:

See attached Savannah River Operations Office (DOE-SR) report to EM-3 dated January 18, 2006. As SRSO and DOE-SR utilize a common contractor with a single contract, a separate assessment was not performed by SRSO as the contractor utilizes the same manuals, processes and procedures site-wide.

Noteworthy Practices – None.

Judgment of Need: None

Performance Objective F&I-3: DOE Line Management Oversight – DOE line management have established and implemented effective oversight processes that evaluate the adequacy and effectiveness of contractor assurance systems and DOE oversight processes.

Evaluation: Performance Objective partially met

Results:

The SRSO has established and is currently implementing an effective oversight program.

The SRSO was reviewed by the Chief Defense Nuclear Safety (CDNS) in July 2005 and received an overall grade of “Meets Expectations”. The review did point out some deficiencies and weaknesses, and actions have been implemented to correct them. Of the 63 actions, all but 10 have been closed out. The 10 remaining open items are longer term and are being worked by SRSO. The 4 findings related to Feedback and Improvement

Site Assessment Report
F&I Commitment 25 – DNFSB Recommendation 2004-1

have been closed, but 1 Opportunity for Improvement in this area remains open. The SRSO is also currently undergoing a biennial review by the DOE Headquarters Office of Environment, Safety, and Health Evaluations (SP-44) utilizing the DOE Order 226.1 CRADs. This review will not be completed until February 3, 2006. While there have been no major items identified at this time, the final report for the review has not been issued. Once the final report is issued, actions will be taken to correct any issues which have been identified.

The responsibility for line oversight is clearly defined in SV-MAN-002, “SRSO Functions, Responsibilities, and Authorities Manual (FRAM)”. The FRAM provides a mission and function statement for each organizational entity and identifies responsibilities. Personnel are held accountable for their responsibilities through the annual performance appraisal process.

The SRSO utilizes an Annual Assessment Plan which provides an overall schedule for operational assessments, technical assessments, business process assessments, and self-assessment activities. The results of the assessments are entered into the Savannah River Operations Office (DOE-SR) sitewide database – SIMTAS (Site Issues Management and Technical Assessment System) – and transmitted to the contractor for appropriate action. Deficiencies are tracked to closure.

The Washington Savannah River Company (WSRC) Defense Programs Operations has a Contractor Assurance System (CAS) in place. The CAS was developed in March 2004 and all attributes were in full compliance in October 2004. The CAS received its first annual update in November 2005. The SRSO performs a quarterly validation of the CAS, and provides feedback to the contractor on a quarterly basis.

The SRSO provides monthly performance feedback to the contractor with the 4 focus areas being safety and security, technical capability, performance, and corporate perspective. SRSO utilizes a computer based tracking system whereby the contractor inputs performance metric data for mutually agreed upon performance metrics. Monthly meetings are conducted and SRSO then formally transmits the performance feedback to the contractor in writing.

The SRSO has a procedure that establishes and maintains appropriate qualification standards for personnel with oversight responsibility. The current procedure is SV-PRO-015, “SRSO Technical Qualification Training Program”.

The SRSO currently utilizes the DOE-SR Employee Concerns Program, which is available to all SRS employees.

Although all criteria for implementing effective line management oversight have been met, SRSO will still need to validate full implementation of DOE Order 226.1, “Implementation of Department of Energy Oversight Policy” once it has been fully implemented by the contractor and the Site Office. The results of the on-going SP-44 review will assist SRSO in better defining the delta for full implementation.

Site Assessment Report
F&I Commitment 25 – DNFSB Recommendation 2004-1

Noteworthy Practices – None.

Judgment of Need:

Correct items identified by external review groups relative to Feedback and Improvement and complete implementation of DOE Order 226.1. This will be accomplished by:

1. Take appropriate action to close out any items identified by SP-44 for SRSO action by September 2006. (Note that this date may change depending on the outcome of the final report by SP-44.)
2. Complete implementation of DOE Order 226.1 by September 15, 2006.

United States Government

Department of Energy (DOE)

memorandum

Savannah River Operations Office (SR)

DATE: JAN 18 2006

REPLY TO

ATTN OF: OESH (S. Robinson, (803) 952-6015)

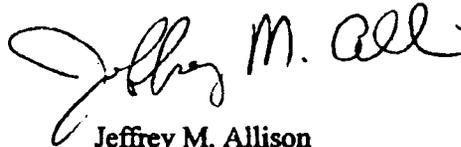
SUBJECT: Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, Integrated Safety Management System Feedback and Improvement (Memorandum, Garman to Rispoli, 11/9/05)

TO: Dr. Inés R. Triay, Chief Operating Officer for Environmental Management (EM-3), HQ

This memorandum transmits the DOE-SR Feedback and Improvement Assessment and associated draft Site Action Plan completed to meet DNFSB 2004-1 Commitment 25. The assessment was conducted in accordance with the Criteria and Review Approach Document (CRAD) at the 2004-1 Knowledge Portal and the supplemental lines of inquiry provided by EM staff via email on December 2, 2005. Attachment 1 provides the completed assessment report. Attachment 2 documents the draft action plan that was developed to address identified areas of improvement. DOE-SR will ensure that the elements associated with the Integrated Safety Management System (ISMS) are effectively addressed as we implement the final Site Action Plan.

As you requested I am providing a copy of the memorandum to Dae Y. Chung and an electronic copy to Terry Krietz.

If you have any questions, please contact me or have your staff contact Dr. Karen Hooker, Director, Office of Environment, Safety and Health at (803) 952-8379.



Jeffrey M. Allison
Manager

Attachments:

1. Assessment Report
2. Draft Site Improvement Action Plan

cc w/attach:

Dae Chung, EM-24
Terry Krietz, EM-22



**Assessment of the
Effectiveness of Feedback & Improvement Processes
at the Savannah River Site**

January 2006

Results of Assessment of the
Effectiveness of Feedback & Improvement Processes
at the Savannah River Site

Executive Summary

This information provides the Performance Objectives and Department of Energy – Savannah River Operations Office (SR) and Washington Savannah River Site's (WSRC) assessment responses for Commitment 25 of the Department of Energy's (DOE) Implementation Plan for the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, Oversight of Complex, High-Hazard Nuclear Operations. The Assessment was performed using the feedback and improvement Criteria and Review Approach Document (CRAD) located online at the 2004-1 Knowledge Portal. As a result of the assessment, it was concluded that Performance Objectives 2.1, 2.3, and 2.4 are fully met, while Performance Objectives 1, 2.2 and 3 are partially met. Below are the identified Opportunities for Improvement:

Opportunity for Improvement F&IP-1-OFI-1: This performance objective is considered to be partially met since the WSRC S/RID (contractual requirement) was just recently (12/27/05) changed to incorporate DOE O 226.1. With this S/RID change, WSRC will now complete a Compliance Assessment and Implementation Report within 60 days and will further schedule a revision to the WSRC Quality Assurance Management Plan to document WSRC's Contractor Assurance System. WSRC believes that the fundamental elements of the program are in place, but they are not documented as the Contractor Assurance System as required by DOE O 226.1.

Opportunity for Improvement F&IP-2.2-OFI-1: An identified Opportunity for Improvement is to review field lessons learned organizations' actions regarding the screening of site problems/issues and how potentially applicable field events (including results from the recently implemented sub-contractor Focused Observation Program) are best submitted to the Site Lessons Learned Coordinator for sitewide applicability determination.

Opportunity for Improvement F&IP-3-OFI-1: DOE has established adequate line management oversight processes per existing DOE-HQ directives. The site continues to upgrade its current tracking and trending databases and coordinate with the contractor(s) to ensure effective and efficient processes are identified and implemented in a timely manner. However, DOE has not completed a compliance and implementation review for DOE O 226.1.

Performance Objective 1: Contractor Program Documentation

Contractor Line management has established a comprehensive and integrated operational assurance system which encompass all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation.

Results

WSRC has established a comprehensive and integrated operational assurance system. The elements of the system are documented in the WSRC Integrated Safety Management Description and the WSRC Quality Assurance Management Plan and approved by the DOE. The key elements of the program are the Management Assessment process, Independent Assessment process, Continuous Improvement process, Corrective Action process, Lessons Learned process, Performance Indicators, Annual ISMS review, and Personnel Qualification process as described below.

WSRC's approach to Management Assessment incorporates two major program activities: Self-Assessment and Performance Analysis. Both of these activities are jointly implemented to ensure the adequacy and effectiveness of WSRC's management control system is appropriately assessed throughout the organization. While retaining overall responsibility for the Management Assessment, senior management requires managers to assess the performance of the activities assigned to their organization. The Management Assessment program is a major mechanism of WSRC's Integrated Safety Management System.

Self-Assessments are planned and performed to verify conformance to applicable requirements and identify opportunities to improve performance and cost effectiveness. Results and conclusions from these assessments are documented and evaluated. Problems identified are documented using a site-wide database system called "Site Tracking, Analysis, and Reporting (STAR)" for management of problem resolution as required by the company level corrective action program includes provisions to track and follow-up on planned corrective actions from the self-assessment.

STAR was implemented site wide July 1, 2004 and was a major step by the company in being able to capture problems in a single database and, more importantly, capture data (causes, functional bins, etc.) associated with problems. The STAR system is a valuable tool that also supports meaningful performance analysis. An effectiveness review has been performed on STAR data, corrective actions have been implemented, and a second effectiveness review has been scheduled in 2006, to ensure the quality and consistency of data input into the system.

Performance Analysis of event-based and review-based data from various sources (i.e., the WSRC Corrective Action Program, WSRC Management and Independent Assessment Programs, and the DOE Occurrence Reporting System (ORPS)), is performed periodically to identify recurring problems and identify potential areas of future concern.

This is accomplished at two different levels within the company. Site-level performance analysis is performed quarterly under the leadership of the Performance Analysis Advisory Group, and overseen by WSRC's Management Council, and is used to identify recurring problems. Organizational-level performance analysis is performed semi-annually, as directed by the Business Unit Directors, and identifies recurring organizational problems within their areas of responsibility. All problems identified as recurring are processed in accordance with the company-level corrective action program and as applicable in the DOE ORPS system and DOE PAAA Non-Compliance Tracking System (NTS). Results from the site-level and organizational-level performance analysis activities are documented, and issues are managed through STAR. (For details see WSRC Manuals 1Q and 12Q, and S/RID FA01 and 02.)

Independent performance-based Integrated Safety Management Evaluations (ISMEs) are planned and conducted by the Internal Oversight organization's Facility Evaluation Board (FEB) team(s). These ISMEs, part of the Integrated Safety Management feedback and improvement function, are separate from, and in addition to, the management assessments. These unannounced assessments provide a factually accurate comparative evaluation of performance; evaluate facility and programmatic self-assessment programs; and verify conformance to established requirements and contractual obligations. The allocation of resources is based on the status, hazard, complexity, and prior performance of the activity or process being assessed. The WSRC President has direct organizational oversight of the FEB process and approves and issues the ISME report to the facility manager. In turn, the evaluated organization responds to the President with the corrective actions taken or being planned in response to the ISME.

The group performing independent assessments has sufficient authority and freedom from the line to carry out its responsibilities. Personnel performing independent assessments do not have direct responsibilities in the area they are assessing. Assessment results are tracked and management responsibilities for their resolution are clearly assigned. The need for follow-up review of areas found deficient during an assessment is determined by cognizant management. Continuous improvement is fostered by applying WSRC's formal corrective action methodology to the assessment results.

Readiness requirements for the startup/restart of nuclear activities are determined in accordance with WSRC Manual 12Q, which implements the requirements of DOE Order 425.1 (series). A graded approach is utilized to determine the scope and depth of readiness determinations, the appropriate level of approval authority and the rigor and formality of process documentation. The methodologies range from use of routine restart procedures, to graded approach Readiness Assessments (RA), up to complete Operational Readiness Reviews (ORR). Each process identifies Core Requirements. Independent audits, assessments, and surveillances are also performed by units within designated WSRC organizations to address special programs. These requirements apply only to specific organizations/Business Units. (For details see WSRC Manuals 1Q, 12Q, SCD-4, and S/RID FA 02). The Operations Evaluation Department has established a start-up readiness manager who oversees the entire process.

Problem prevention and continuous quality improvement are addressed in various implementing procedures. These objectives are met by measuring and evaluating performance against key performance indicators/standards. Item characteristics, process implementation, and other quality-related information are reviewed and the data analyzed to identify items, services, and processes needing improvement. This data is also used to identify adverse trends that impact the quality of items and processes. Examples of quality related information used include:

- process capability studies
- performance analysis results
- studies which define assignable and inherent causes of process variability
- deficiencies identified within the Corrective Action Program
- failure rates
- corrective maintenance performance and backlog analysis
- preventive maintenance performance

To assure that appropriate improvement opportunities are identified, information from internal and external sources (DOE, industry data, various subcontractors/suppliers) is used. WSRC policies for managing and continuously improving how work is performed, in order to meet customer expectations for quality and to measure and produce results aligned with strategic objectives, involves all personnel in the respective organizations. (For details see WSRC Policy Manual 1-01 and WSRC Manuals 1B, 9B, 11B, 1Q, 1S, 2S, 11Q, 12Q, E7, and S/RID FA 02, 07, and 09).

Corrective action procedures require personnel to report identified nonconforming items and processes. These procedures define the reporting system used to identify such items and processes; to correct deficiencies; and to ensure adequate closure of corrective actions. All personnel are granted the freedom and authority to identify those items and processes determined to be nonconforming, and, as appropriate, to stop work or request that work be stopped until effective corrective action is completed. Procedures for bringing events, conditions, employee concerns, and issues to management's attention have been established by senior management. These procedures are in compliance with DOE Orders for Occurrence Reporting and the processing of operations information, and encourage and support identification and reporting of unsatisfactory conditions.

Processes to detect and prevent quality problems have been established and implemented. Items, services, and processes that do not meet established requirements are identified, controlled, and corrected according to the importance of the problem and the affected work. Correction includes identifying the causes of problems and taking action to prevent recurrence based on the significance of the problem. The WSRC system for identifying and controlling quality problems incorporates a single company-level problem identification and corrective action control system.

The WSRC Corrective Action Policy is described in WSRC Policy Manual 1-01, MP 5.35, *Corrective Action Program*. While the inputs to the system come from multiple problem identification sources per MP 5.35, the tools used to resolve each type of problem have consistent process steps. The corrective action system, as a whole, forms a comprehensive process with site-wide applicability as defined in implementing procedures. Continuous improvement is fostered by integrating the Corrective Action Program with feedback processes such as:

- Price Anderson Amendments Act (PAAA) noncompliances
- Occurrence Reporting
- Management Assessments
- Independent Assessments
- Lessons Learned processes
- Customer reviews

The corrective action program includes the following elements:

- problem identification/extent of problem determinations
- problem significance determination
- problem evaluation
- lessons learned evaluation
- corrective action development/extent of condition determination
- corrective action implementation
- corrective action closure
- effectiveness reviews of those corrective actions implemented to prevent recurrence.

The corrective action methodology yields quality improvements that are implemented in a tailored manner. The significance of identified problems is the basis for the tailored application of the requirements within the corrective action process. The extent of causal analysis (i.e., Apparent Cause, Root Cause) is commensurate with the importance or significance of the problem: Significance Category 1 Problems include recurring and significant specific problems; Significance Category 1 and 2 Problems are analyzed for Root Cause through the corrective action program.

Implementation of the required corrective actions to all problems is performed and documented by the responsible organization and verified commensurate with the Significance Category of the problem. The Corrective Action Program also includes the requirement for an effectiveness review to be performed on those corrective actions identified to prevent recurrence of the problem for Significance Category 1 and 2 problems. All problems/issues reported into the DOE-HQ, Office of Enforcements, Noncompliance Tracking System are assigned as Significance Category 1.

The WSRC Corrective Actions Program, along with the Management Assessment Program and STAR system, are being used to address both event-based and review-based problems. The Quarterly company-level WSRC Performance Analysis (PA) reports are being used to identify recurring problems that may represent potential adverse performance trends requiring increased management attention. Additionally, the Quarterly PA Report includes a feature for identifying items to be added to a "Watch List" for further monitoring during the next reporting period. Watch List items are identified since they could be precursors to recurring problems and some type of action may be appropriate to proactively address the situation.

Controls exist for preventing the inadvertent testing, installation, or use of nonconforming items and processes. Established controls include tagging of items, segregation of items when possible, and conditional release for post-installation testing. Nonconformances are reviewed and approved by the organizations that reviewed and approved the original items or processes unless another organization with qualified and knowledgeable personnel is designated. Justification for the disposition action is documented in accordance with procedures for those items or processes not returned to their original, as-designed conditions. Nonconforming items that are subsequently reworked, repaired, or replaced are inspected and/or tested to either the original requirements or to specified alternative requirements. Such inspections or tests are conducted prior to the final acceptance of the items or processes.

The Cognizant Technical Function (CTF), chartered with having an adequate technical understanding of the work and access to pertinent background information, is responsible for the analysis and disposition of nonconformances involving "Repair" or "Use-As-Is" dispositions.

QA activities associated with nonconforming items and processes include validation of the nonconformance, review of dispositions, verification of completion of disposition actions, and closure of the reporting document. Alternative reporting documents (for example, deficiency reports and condition reports) may be used depending on the consequence of failure or operational status. Alternative controls are approved by the WSRC Site Quality Assurance Manager in accordance with established procedure. (For details see WSRC Policy Manual 1-01, and WSRC Manuals 1B, 9B, 1Q, and S/RID FA 02).

WSRC has established a comprehensive Operating Experience/Lessons Learned Program that promotes safe, effective operation of Savannah River Site (SRS) facilities and enhances the safety and health of SRS employees and the public by applying the lessons learned from the systematic review of operating experience at SRS facilities, and of similar Department of Energy (DOE) complex and commercial nuclear industry facilities.

The WSRC Lessons Learned Program reviews internal and external events for SRS applicability and shares information from these sources as its applicable. Also, the WSRC Lessons Learned Program routinely submits lessons learned to the DOE ESH Lessons Learned System for sharing of events across the DOE Complex. Also, post-job critiques and reviews are held after job performance to assure that lessons learned/worker feedback/job history information is captured for future improvement.

An effective employee concerns program is established and implemented that encourages the reporting of ES&H concerns. The ECP program provides thorough investigations and effective corrective actions and recurrence controls. All WSRC employees have the right and responsibility to express their workplace issues and concerns with the expectation that they will be addressed, and no adverse action will be taken against them as a result of their voicing concerns.

WSRC uses three individually focused sets of performance measures and indicators:

- The Key Performance Indicators (KPIs), a comprehensive set of metrics developed to measure and guide improvements in overall performance. These metrics are kept on a site basis for corporate use and tailored metrics are kept at lower levels of the organization and at the facility level for internal use. The methodology and display of these metrics were patterned after a system utilized by the commercial nuclear industry.
- The WSRC Disciplined Operations Summary Indicator (DOSI) includes all of the reportable occurrences in the following ORPS Reporting Group classifications as components of the metric: Personnel Safety and Health, Nuclear Safety Basis, Facility Status, Environmental, Contamination/Radiation Control, Transportation and Noncompliance Notifications.
- The WSRC Safety Goals are established on a calendar year basis and are submitted to DOE-SR in December for the following year. Performance to these goals is tracked monthly by WSRC and the status is updated quarterly to DOE-SR.

The annual ISMS review utilizes a number of feedback mechanisms, such as self-assessments, independent assessments, occurrence reports, external assessments, and a host of others that serve a specific programmatic need. Each of those existing appraisal and assessment activities provides necessary feedback to maintain and, coupled with an effective Corrective Action Program, improve the ISMS. WSRC recognizes a higher need to review, from a high-level, holistic perspective, the effectiveness of the entire WSRC Integrated Safety Management System as a system. By analyzing and reviewing the aggregate of those feedback data, it is possible to gain a perspective that can inform top-level line management of any major adjustments that need to be part of a long-term ISM improvement strategy. The Annual ISMS Review is sponsored by the WSRC Management Council to provide that higher perspective. The Annual ISMS review, conducted according to WSRC-IM-2001-00026, *Guidance for Conducting the WSRC Annual ISMS Review*, serves as a basis for continual improvement of the WSRC ISMS, and:

- provides an overall measure of the effectiveness of Integrated Safety Management (ISM) implementation relative to the Continuing Core Expectations contained in DOE G 450.4-1B, *Integrated Safety Management System Guide*
- provides an integrated macro perspective of company performance
- provides a focused input for strategic planning processes
- allows for refinement and improvement of performance metrics
- captures strengths and improvement opportunities for lessons learned sharing (site, DOE Complex, EFCOG Best Practices etc.)

WSRC personnel are trained and qualified, commensurate with their responsibilities, to ensure they are capable of performing their assigned work. Management establishes initial and continuing training and qualification requirements with supporting processes for specific job categories. The qualification of personnel supports the program, all of the ISM core functions, and satisfies the third ISM Guiding Principle to ensure personnel have the competence commensurate with their responsibilities.

Programs are structured to be in compliance with DOE Order requirements for training and qualification of managers, operators, technicians, and maintenance personnel. All requirements are described in WSRC Manual 4B, *Training and Qualification Program Manual*, applicable lower-tier implementing procedures and Training Program plans. (For details see WSRC Manuals 1Q, 4B, and S/RID FA 02 and 04.)

WSRC has demonstrated the sufficiency of the comprehensiveness and integration of the program throughout the organization and its associated programs and operations. During FY05, this was assured by feedback from the following examples of internal and external reviews and assessments:

- Annual WSRC ISMS Review
- Independent Evaluations by WSRC's Independent Oversight Department using the Facility Evaluation Board (FEB) process
- Company Key Performance Indicators (KPIs) presented in this ISMS Declaration
- Quarterly WSRC Performance Analysis Reports
- INPO Assist Visits
- DOE Office of Price-Anderson Enforcement (EH-6) PAAA Program review

Additionally, WSRC has leveraged the feedback and improvement process to manage and direct the program. Examples of effective use of feedback and improvement are evidenced in the Assisted Hazards Analysis process, Employee Concerns, Management Assessment process, and Corrective Action process as cited below.

WSRC has implemented an improved Assisted Hazards Analysis (AHA) process and a new Safe Work Permit (SWP) tool that is responsive to feedback received from several assessments that identified specific weaknesses in the AHA process initiated in FY04.

Elements of work control have been improved to ensure scopes of work are defined in a way that supports proper identification of specific hazards relating to that work scope. The SWP will ensure that any identified controls are in place and remain intact until the completion of the specified scope of work

Industrial Hygiene staff has been increased to better support the exposure monitoring requirements, but continues to be challenged by frequent changes in activity schedules requiring quick unplanned deployment of monitoring personnel and equipment. IH is focusing on improvements in the area of field support and has personnel assigned to work with field operations management to develop solutions for some of the challenges involving their specific activities.

WSRC has an established program to independently investigate concerns raised by employees in the areas of environment, safety, health, safeguards and security, quality assurance, waste, fraud, and abuse, management practices, reprisal, and others. A site Key Performance Indicator is maintained to alert senior managers to adverse trends in the timely resolution of ECP issues. In cases where the resolution process takes more than 30 days, the originator is notified of that fact in writing.

Feedback information from DOE oversight and WSRC's ongoing Integrated Safety Management Evaluations (unannounced Independent Assessments) and implementation of a Management Assessment Program that includes both Self-Assessments and Performance Analysis, have provided the following important conclusions about the WSRC processes:

- WSRC currently has an effective program that has the mechanisms to maintain that effectiveness into the future.
- The WSRC program exhibits minor weaknesses yielding opportunities for improvement that are addressed by maturing causal analysis and corrective action methods and are tracked to closure using a single site electronic corrective action program database (STAR).

As both identified low-significance precursor problems and opportunities for improvement are processed by the improved Corrective Action process, the entire program will benefit. Additionally, the WSRC Lessons Learned Program examines DOE program reviews and other feedback information from other DOE sites to identify similar problems and best practices for possible applicability at SRS. One of those items was a "Best Practices Summary" for "Effective Uses of Time Outs" as a tool to prevent safety incidents and improve performance.

Last year, WSRC introduced a re-engineered Management Assessment Program (MAP) comprised of Self-Assessments and Performance Analysis, institutionalized in WSRC Manual 12Q, Assessment Manual Procedures SA-1 and PA-1 respectively. To fully integrate these two elements into the WSRC ISMS, it was necessary to make revisions to the WSRC 1Q Quality Assurance Manual Procedure 18-4, Management Assessment Program and to ensure full integration with the WSRC Corrective Action program in WSRC 1-01, MP 5.35. Implementation of these improvements began in FY04 with the benefits being fully realized in FY05.

In March 2005, an Effectiveness Review of the Management Assessment Program was conducted to evaluate the implementation of the program from the perspective of management's understanding, support and involvement within their areas of responsibility. Also reviewed were the institutionalization and implementation of the program at the company and business unit levels.

The conclusion from the review was that WSRC has adequately implemented the requirements of the MAP as specified in WSRC Manual 12Q. Opportunities for Improvement identified during the review provided a framework of actions that are being addressed with associated actions being tracked and managed using STAR described in WSRC Manual 1B, MRP 4.23.

WSRC has a mature system for the flowdown of requirements into work performed by the WSRC team, and to work and materials obtained through subcontracts and vendors. The primary mechanism for the flowdown of DOE ES&H-related requirements is the WSRC Standards/Requirements Identification Document (S/RID) feeding requirements in 20 Functional Areas (two of which are Environmental Management and Quality Assurance) into the WSRC system of company-level policies and procedures used in the performance of work. That process is governed by WSRC company-level procedures.

The flowdown of requirements for all work performed under the WSRC team contract, regardless of the performer of the work is further satisfied by specific company-level procedures for management of construction and services subcontracts. Those procedures are a well-coordinated set including Requirement Specifications, Purchase Requisitioning, and Workplace Safety and Health Program for SRS Visitors, Vendors, and WSRC/BSRI Subcontracts. Company-level procedures, programmatic tools, and subject matter experts in the 20 S/RID Functional Areas are available to assist the requester in defining the statement of work to include performance of the work to an appropriate set of requirements from the WSRC S/RID that are specifically cited in the subcontracts. Depending on the level of hazard and other considerations, the subcontractor will be required to either develop a task specific worker protection plan or work to the subcontractor's existing safety plans if they are relevant and approved by WSRC. Likewise, the company-level procedures for the procurement process ensure that those and other regulatory requirements are placed as General (and/or Special) Provisions into the subcontracts. All quality requirements associated with the performance of work and the procurement of services and materials are driven by the company-level Quality Assurance Manual and specific roles and responsibilities and controls for quality are specified in each company-level procedure and in the subcontract. After the award of subcontracts, during the conduct of work (delivery of service) phase, monitoring of the subcontractor's performance of work by the appropriately trained WSRC Subcontract Technical Representative assigned to the subcontract, who keeps detailed records of actions and issues associated with the subcontract. Additionally, Focused Safety Observations are conducted by WSRC ES&H staff personnel as defined by the procedures. Subcontractor safety performance data is kept for evaluation of any future bid for work by that subcontractor. At the completion of the subcontract, all records are kept by the procurement organization.

The WSRC Subcontract Management Program defines the process functions, roles, responsibilities and authority of WSRC personnel involved in subcontract management activities. This Program is implemented by WSRC Manual 11B and includes responsibilities and expectations of Procurement Representatives, Subcontract Technical Representatives, and Subcontract Management Representatives. Subcontract Management includes all relationships between WSRC and the Subcontractor which grow out of subcontract performance. It encompasses all dealings between the parties from the time the subcontract is awarded until the work has been completed and accepted, all badges have been returned, government-furnished equipment has been returned, payment has been made and disputes have been resolved.

Evaluation: Performance Objective partially met.

Opportunity for Improvement F&IP-1-OFI-1:

This performance objective is considered to be partially met since the WSRC S/RID (contractual requirement) was just recently (12/27/05) changed to incorporate DOE O 226.1. With this S/RID change, WSRC will now complete a Compliance Assessment and Implementation Report within 60 days and will further schedule a revision to the WSRC Quality Assurance Management Plan to document WSRC's Contractor Assurance System. WSRC believes that the fundamental elements of the program are in place, but they are not documented as the Contractor Assurance System as required by DOE O 226.1.

Performance Objective 2: Contractor Program Implementation

2.1 Assessments & Performance Indicators

Contractor Line management has established a rigorous and credible assessment program that evaluates the adequacy of programs, processes, and performance on a recurring basis. Formal mechanisms and processes have been established for collecting both qualitative and quantitative information on performance and this information is effectively used as the basis for informed management decisions to improve performance.

Results

WSRC has an established assessment program consisting of self assessments, management assessments, performance analysis and independent assessments. These programs are used to evaluate and demonstrate the adequacy of the WSRC Functional Areas and programs on a periodic basis. The WSRC assessment program is formalized and documented in controlling procedures to ensure a consistent rigor is applied in evaluating processes as well as obtaining performance information. The qualitative and quantitative information resulting from the WSRC assessment program is analyzed and presented to management for their direction on making process improvements.

The WSRC assessment program is detailed in WSRC Manuals 1Q and 12Q, and SCD-4 documents. WSRC Manuals 1Q and 12Q describe the assessment process while the SCD-4 document contains a smart sample of requirements that can be used to perform assessments in each of the various Functional Areas. Assessments and evaluations of contractors are performed under the WSRC supplier surveillance and supplier audit programs.

Construction subcontract field verifications are performed and assessed in accordance with the Construction Management Department Manual (1E6). Operations subcontracts are controlled in accordance with WSRC Manual 11B, *Subcontract Management Manual*.

These programs are applied using a graded approach based on a number of factors including risk. The scope and frequency of management assessments are defined in assessment plans or schedules that are based on past performance as well as importance to the process. Independent assessment schedules are not published and are unannounced. The schedules are based on past performance and emerging issues. The assessment program allows for both performance based and review based evaluations. The performance analysis element of the assessment process is designed to identify precursor issues and trends as well as cross cutting issues.

Self assessments are identified in assessment plans or schedules, performed, and documented. The self assessments are used to determine the effectiveness of processes, compliance to requirements, or degree of implementation.

WSRC independent internal assessments are performed by Internal Oversight's independent Facility Evaluation Board, which reports to the office of the president. These assessments are typically unannounced and focused on key emerging issues. The assessors have the authority and independence from line management to provide in depth unbiased evaluations.

WSRC management has various programs, in addition to the assessment program, established to identify, gather, verify, analyze, trend, disseminate, and improve performance. These include Behavior Based Safety observations, management observations, management-by-walking-around (MBWA), time outs, near miss, lessons learned, post-job work histories, and corporate metrics. The trends are used to identify best practices as well as opportunities for improvement. The corporate metrics have clearly identified goals and standards as well as analysis of the trend. The metrics are indicative of work performance and are clearly linked to various parts of WSRC programs/processes and clearly delineate management expectations.

WSRC uses a Key Performance Indicators (KPIs) system (described in *Savannah River Site Performance Metric Manual*, WSRC-RP-2002-00252, latest revision) that measures performance across the company in the following Focus Areas: Safety and Security; Technical Capability and Performance; Community, State and Regulatory Relationships; Cost Effectiveness; and Contract Performance. Under the Safety and Security Focus Area the specific performance measures are:

- Industrial Safety and Health
- Emergency Services
- Radiological Safety
- Nuclear Safety
- Physical Security

The format for the KPIs is an annunciator-type system of Key Performance Indicators (KPIs) with a color rollup scheme, established by the commercial nuclear industry. It provides a quick status, overall summary of key operational, safety, and business performance. The underlying principle behind each metric is the use of objectivity to assess performance. This system provides not only key information at a glance, but also provides WSRC and DOE-SR Program and Project Managers the ability to “drill down” through the Focus Area Level 1 metrics to help identify the sources and effects of issues and actions. Instead of focusing only on individual events, it provides a view of emerging trends over the past twelve months. These KPIs are kept at the site (company) level. WSRC also uses the same annunciator-type system tailored to the needs of lower levels of the organization and facilities. Senior management reviews the corporate metrics and holds responsible managers accountable. Performance analysis reviews focus on performance improvement, degradation, or identification of precursor minor events before they become serious events.

WSRC management uses the various performance improvement tools in conjunction with the budget process to determine performance against established goals or revise goals as necessary, allocate resources, establish compensatory measures and corrective actions. Management also makes use of the lessons learned process to facilitate the sharing of good practices.

An example of performance trends being evaluated and used to improve performance are the quarterly Site Performance Analysis reports that are used identify repetitive issues and minor problems before they become significant issues.

Evaluation: Performance Objective fully met.

2.2 Operating Experience

The Contractor has developed and implemented an Operating Experience program that communicates Effective Practices and Lessons Learned during work activities, process reviews, incident/event analyses, and post-job work histories to potential users for application to future work activities.

WSRC has established a comprehensive Operating Experience/Lessons Learned Program that promotes safe, effective operation of Savannah River Site (SRS) facilities and enhances the safety and health of SRS employees and the public by applying the lessons learned from the systematic review of operating experience at SRS facilities, and of similar Department of Energy (DOE) complex and commercial nuclear industry facilities.

The program is defined in WSRC Manual 1B, Procedure 4.14, and is the responsibility of Regulatory Services Section of Technical and Quality Services. The program is administered by the Site Lessons Learned Coordinator. A staff of technical reviewers assists in the screening and dissemination of lessons learned information. Lessons Learned Coordinators from each business unit/organization, matrixed to the Site Lessons Learned Coordinator, have the responsibility for implementing and directing their own organizational Lessons Learned Programs. These programs effectively evaluate issues disseminated by the Site Lessons Learned Coordinator and implement appropriate corrective actions.

The Site Lessons Learned Group technical reviewers, who report to the Site Lessons Learned Coordinator, obtain and screen information from several sources for Site applicability. These sources include, but are not limited to:

- DOE Notification Occurrence Reports
- DOE Final Occurrence Reports
- DOE ESH Suspect/Counterfeit Web Page data
- DOE ESH Defective Item Web Page data
- DOE ESH Operating Experience Special Operations Reports
- DOE ESH Operating Experience Safety Alerts
- DOE ESH Special Reports
- DOE ESH Safety Bulletins
- DOE ESH Operating Experience Summaries
- DOE ESH Just-In-Time Reports
- DOE ESH Advisories
- DOE ESH Operating Experience Program Lessons Learned Alerts
- DOE Office of Independent Oversight and Performance Assurance reviews
- DOE Type A & B Investigation Reports
- INPO Operating Experience Reports
- PAAA items from WSRC and the complex
- Defense Nuclear Facility Safety Board information
- OSHA Safety and Health Bulletins

- SRS events
- Wackenhut-SR Lessons Learned items
- Savannah River Ecology Lab (SREL) Lessons Learned items
- US Forestry Service-SR Lessons Learned items

Items with potential lessons learned value to SRS facilities are forwarded to the appropriate Functional Program Manager/Subject Matter Expert (FPM/SME) or designee, for further evaluation or information to assist in making an applicability determination.

Applicable lessons learned documents are then prepared and distributed to the Organization Lesson Learned Coordinators.

All Site Lessons Learned items that are distributed by the Site Lessons Learned Group are entered into STAR and each Organization Lessons Learned Coordinator is given an action in STAR regarding each lessons learned.

The Organization Lesson Learned Coordinators determine which departments in their organizations may need to take action on the lessons learned documents they receive from the Site Lessons Learned Group. They monitor progress of the departmental evaluation, corrective actions, and report the status to the Site Lessons Learned Coordinator. In addition, these coordinators screen their organization occurrences/events for lessons learned that may apply to other WSRC business units/organizations and forward to the Site Lessons Learned Coordinator, if applicable.

The Site Lessons Learned Coordinator administers the program and tracks the progress of required lessons learned item evaluations and corrective actions within STAR. The Site Lessons Learned Coordinator makes the final decision on whether an issue should be brought to the attention of organizational safety committees or WSRC Senior Managers. A hierarchy of lessons learned documents has been established to help identify the relative significance of the items and assist in the development of appropriate corrective actions. These include:

- Site Lessons Learned Directive
- Site Lessons Learned Bulletin
- Site Lessons Learned Product Information Notice
- Site Lessons Learned Special Information Notice
- Site Lessons Learned First Alert
- Site Lessons Learned Best Practice

The WSRC Lessons Learned Program has been effective at communicating lessons learned to potential users. As of 12/16/05, the WSRC Lessons Learned Program has issued 75 site lessons learned internally at WSRC and have shared 45 lessons learned to the other sites in the DOE Complex via the DOE ESH Operating Experience/Lessons Learned System.

At WSRC, a recent lessons learned (2005-LL-0074, Site Excavation Working Group Clarifies Excavation Sketch Layout Information) was issued to the site, clarifying information regarding excavation activities. This information was received/distributed by the Organization Lessons Learned Coordinators, including the Bechtel Savannah River Incorporated (BSRI) Lessons Learned Coordinator. The BSRI Lessons Learned Coordinator shared with BSRI personnel, and subsequently led to this lessons learned being reviewed by all Direct Hire Construction and Construction Managed Subcontractors who perform excavation or trenching activities at SRS. This isn't the only group who has received this information, but does demonstrate how lessons learned information gets shared throughout the site.

Also, WSRC Lessons Learned Program information that has been shared with the DOE Complex has proven to be valuable. Lessons learned shared with the DOE Complex include SRS's Time Out program, results from the DOE Type A Investigation (Pond B Fatality), under-responding neutron electronic personal dosimeters, etc.

An effective employee concerns program is established and implemented that encourages the reporting of ES&H concerns. The ECP program provides thorough investigations and effective corrective actions and recurrence controls. All WSRC employees have the right and responsibility to express their workplace issues and concerns with the expectation that they will be addressed, and no adverse action will be taken against them as a result of their voicing concerns. A technical assistance review was conducted of the Savannah River Site Equal Employment Opportunity and Employee Concerns Program July 18 -27, 2005.

Evaluation: Performance Objective partially met.

Opportunity for Improvement F&IP-2.2-OFI-1:

An identified Opportunity for Improvement is to review field lessons learned organizations' actions regarding the screening of site problems/issues and how potentially applicable field events (including results from the recently implemented sub-contractor Focused Observation Program) are best submitted to the Site Lessons Learned Coordinator for sitewide applicability determination.

2.3 Event Reporting

Contractor line management has established and implemented programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses.

Results

WSRC has established formal programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses.

Management of operational events and incidents is contractually required {through direct inclusion in the WSRC Standards/Requirements Identification Document (S/RID)} to comply with the Contractor Requirements Document (CRD) specified as Attachment 2 to DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*. In accordance with this CRD, WSRC procedural controls are specified in WSRC Manual 9B, Procedure 1-0, *Occurrence Reporting*.

Management of occupational injuries and illnesses is contractually required (through direct inclusion in the WSRC S/RID) to comply with the CRD specified as Attachment 2 to DOE O 440.1A, *Worker Protection Management for DOE Contractor Employees*, as well as the recordkeeping and reporting CRD requirements specified as Attachment 2 to DOE M 231.1-1A, *Environment, Safety, and Health Reporting*. In accordance with the applicable portions of these CRDs, WSRC procedural controls are specified in WSRC Manual 8B, Procedure 18, *Reporting, Responding, Investigation, and Recording of Operational Injury/Illness or Near Miss*.

These programs and processes are further integrated through the WSRC Corrective Action Program (WSRC Manual 1-01, MP 5.35) to ensure, based on a graded approach tied to problem significance, completion of a problem analysis (to identify causes), identification of corrective actions, determination of lessons learned, and completion of appropriate action verifications and effectiveness reviews. Formal Extent of Problem and Extent of Condition determinations are also performed for problems categorized at higher levels of significance. Performance in these areas is routinely evaluated in a variety of manners to determine trends, possible recurrent problems, and/or the need for performance improvements. These include:

- A company-level Quarterly Performance Analysis of reportable occurrences of all significance categories, plus WSRC-determined non-reportable events in order to prevent serious events from occurring.
- A monthly statistical trending of reportable and non-reportable events to identify any statistical trends or “alerts” where statistical trends are being approached.

- A weekly management review of all occupational injuries/illness, along with a monthly review of performance indicators, directed at an overall goal of “zero injuries”.

While some elements of the WSRC processes are still relatively new and should be expected to improve as they continue to be implemented, some specific performance improvements can be attributed to these programs. For example, one of the WSRC Quarterly Performance Analyses identified recurring problems related to Inadvertent Transfer and TSR Violation events. This identification led to a rigorous causal analysis that identified corrective actions to realize a performance improvement. Those actions have been completed and WSRC's performance has benefited with measurable performance improvement in both areas.

As another example, WSRC routinely screens Price-Anderson items reported by other contractors across the complex. Occasionally these reviews result in identification of an appropriate action for WSRC to take to determine whether the same or similar problem exists at SRS. Such application of lessons learned from other sites is an important component of feedback and improvement to help identify potential problems before they turn into an event with more serious consequences.

WSRC reporting of operational events and incidents into ORPS is reasonably consistent with the DOE reporting criteria and other contractor practices across the complex. Some WSRC ORPS reported events are conservatively reported into ORPS for some of the subjective reporting criteria. WSRC recently completed an evaluation of 364 H-Completion Project problems/critiques identified between 11/1/03 and 11/1/05 to determine whether any of the items should have been (but were not) reported into ORPS. This evaluation (considered as a representative sample for the site) did not identify any items that should have been reported into ORPS.

Evaluation: Performance Objective fully met.

Noteworthy Practice: Also, WSRC as named one of the 12 safest companies in America by Occupational Hazards magazine. According to the magazine, their choices for safest companies not only have employee involvement and empowerment in safety, but they also have upper management commitment to safety.

2.4 Issues Management

The Contractor has developed and implemented a formal process to evaluate the quality and usefulness of feedback, and track to resolution performance and safety issues and associated corrective actions.

Results

WSRC has implemented an issues management process, detailed in WSRC Manual 1B, to provide documented analysis, resolution and tracking of program and performance deficiencies based on the requirements of the WSRC Policy for the Corrective Action Program identified in WSRC Manual 1-01. The corrective action program has been established to prevent recurrence of problems affecting personnel safety, operational safety, regulatory compliance, or business operations. All personnel are granted the freedom and authority to identify those processes determined to be deficient and, as appropriate, to stop work or request that work be stopped until effective corrective action is completed. While the inputs to the issues management process come from multiple problem identification sources, each type of deficiency is resolved through application of the following process elements in a tailored manner:

- Deficiency identification
- Determination of extent of deficiency
- Determination of deficiency significance
- Evaluation of deficiency for cause
- Evaluation for lessons learned
- Development of corrective action
- Determination of the extent of the condition
- Implementation of corrective action
- Verification of corrective action performance
- Closure of corrective action
- Review for the effectiveness of those corrective actions implemented to prevent recurrence

The significance of identified deficiencies is the basis for the tailored application of the process elements. The extent of causal analysis (i.e., Apparent Cause, Root Cause) is commensurate with the importance or significance of the problem.

Significance Category 1 deficiencies include recurring and significant specific deficiencies. Significance Category 1 and 2 deficiencies are analyzed by qualified personnel for Root Cause through structured methodologies detailed in the SCD-9 Manual. Implementation of the required corrective actions to all deficiencies is performed and documented by the responsible organization and verified commensurate with the Significance Category of the deficiency. The Corrective Action Program also includes the requirement for an effectiveness review to be performed on those corrective actions identified to prevent recurrence of the deficiency for Significance Category 1 and 2 deficiencies.

A site-wide effectiveness review of the issues management system was performed in February of 2005. Findings and observations/opportunities for improvement identified during performance of the effectiveness review were managed through the issues management system established in WSRC Manual 1B.

While some elements of the WSRC issues management process are still relatively new and should be expected to improve as they continue to be implemented, some specific performance improvements can be attributed to this program. For example, this process is now utilized to provide consistent screening of issues for the identification of Price-Anderson items. In conjunction with this, resolution of the Price-Anderson item is consolidated in the single issues management process. Another example of improvements attributable to this new process is in the area of trending. Through this process, issues, integrated from multiple sources across the site, are now trended at lower levels before significant problems result.

Controls exist in WSRC Manual 1Q for preventing the inadvertent testing, installation, or use of nonconforming items and processes. Established controls include tagging of items, segregation of items when possible, and conditional release for post-installation testing. Nonconformances are reviewed and approved by the organizations that reviewed and approved the original items or processes unless another organization with qualified and knowledgeable personnel is designated. Justification for the disposition action is documented in accordance with procedures for those items or processes not returned to their original, as-designed conditions. Nonconforming items that are subsequently reworked, repaired, or replaced are inspected and/or tested to either the original requirements or to specified alternative requirements. Such inspections or tests are conducted prior to the final acceptance of the items or processes. The Cognizant Technical Function, chartered with having an adequate technical understanding of the work and access to pertinent background information, is responsible for the analysis and disposition of nonconformances involving repair or use-as-is dispositions.

A site-wide assessment of the process for documenting identified nonconforming items and managing their resolution to meet the requirements of WSRC Manual 1Q was performed in November of 2004. Findings and observations/opportunities for improvement identified during performance of the assessment were managed through the issues management system established in WSRC Manual 1B.

Evaluation: Performance Objective fully met.

Performance Objective 3: DOE Line Management Oversight

DOE line management have established and implemented effective oversight processes that evaluate the adequacy and effectiveness of contractor assurance systems and DOE oversight processes.

Results

DOE line management oversight at SR is designed with multiple channels to provide diverse perspectives and a degree of check/balance. The organization is structured such that programs/projects, engineering, and operations report through different supervision with some degree of overlap in responsibilities. Information flow starts with morning staff meetings where input from the Facility Representatives is reviewed along with other emergent issues. Daily Reports distribute the FR information internal and external to the organization. Weekly reports summarize both programmatic and performance status/issues. An integrated FR and Technical Assessment Plan is developed for the organization. The results of the technical assessments are reported routinely to their contractor counterparts. Contract performance reports are prepared usually on monthly basis.

Safety Evaluation Reports are prepared for every Safety Analysis change to provide management a technical basis to judge risks and benefits of the proposed limits for operations. The AM and each Director are required to be Senior Technical Safety Manager qualified. In addition, DOE has a management walkthrough program to encourage direct observation of activities and facility material condition.

Per SRIP 200, Chapter 223.4, "Savannah River Technical Assessment Program", the DOE line management develops an "Assessment Plan for Calendar Year 200#", that outlines an integrated plan for all required technical assessments and evaluations of the contractor performed self-assessments (2006 Plan signed out by AM on November 2, 2005). The required assessments historically represent slightly less than half the actual number of assessments performed. This balance allows for individuals and supervisors to conduct reactive assessments of emergent issues and other management areas of interest as well. A list of program elements to be considered for assessment can be found in the Technical Assessment procedure. The Quality Assurance program is included in that listing. In addition, the Assessment Plan integrates Facility Representative walk-downs

and broad-based assessments as required by SRIP 400, Chapter 430.1, "Facility Representative Program".

The results of individual assessment and operational awareness activities are entered into the SR wide database – SIMTAS – and tracked to closure. The results are informally communicated to the contractor at time of performance and formally transmitted under cover letter to the contractor on a routine basis. Formal responses are required for findings and concerns and corrective actions are tracked to closure. Closure is accomplished in the SIMTAS database and formally documented by DOE.

Primary products of the line organizations' contractor oversight activities are comprised of assessments, weekly facility representative (FR) reports documenting operational awareness of their facilities and contractor activities, field walk downs performed by line managers, Safety Evaluation Reviews (SERs) submitted by the line for my approval, and letters of concern or direction to the contractor issued by my line managers. An important source of information for DOE management is the planned and unscheduled assessments performed by both the facility representatives and the line organizations' technical support personnel. In FY05 there were 1020 FR assessments and 508 technical assessments completed and entered into the DOE SIMTAS.. These were a mixture of scheduled and reactive assessments. Also recorded in SIMTAS were 337 FR weekly reports and 1264 management walk downs representing over 1900 field hours. The line organizations also review the contractor's self-assessments, conducted internally by the contractor's facility staff and externally by the contractor's independent Facility Evaluation Board (FEB). This is done to validate that the contractor is performing effective self-assessments, to compare results from these activities with the conclusions generated by the performance monitoring systems at the Site and facility/program level and provide assurance that there is a robust feedback and improvement process. Information from the facility representatives on their operational awareness on facility activities, and occurrences/events is gathered to support my morning staff meeting.

The oversight and analysis of WSRC performance provided by the line organizations has identified issues that are consistent with those flagged by the performance indicators monitored. This provides assurance that the performance indicators that are monitored are a reasonable set to use for monitoring safety performance as well as a validation of the quality and effectiveness of the line organizations oversight. The PIs used by the federal and contractor staff are constantly scrutinized and challenged by internal and by external organizations. A six-month trend assessment is required in the annual Technical Assessment Plan that typically addresses both events, assessment results, and other performance indications.

The adequacy of the line organizations' contractor oversight activities and the quality and accuracy of analysis, conclusions and information resulting from this oversight is critical in enabling DOE-SR to effectively interface with senior contractor management, DOE HQs, and the DNFSB, and to properly manage the site. An example of this are the routine meetings senior staff and line managers have with the site representative from the

Defense Nuclear Facility Safety Board to discuss issues and to ensure we have their perspective on safety. To ensure a balance of perspective the DOE Manager meets routinely with Environment, Safety, and Health (ES&H) staff and line organizations to review and discuss trends that may be emerging from the site safety metrics. To add continuity we also use a technical advisor, who briefs the Manager on all occurrences/safety issues and follow-up research of details to augment the daily flow of information emanating from line organizations and ES&H staff.

Over the past year, there have been several instances in various projects where the contractor has been in some cases slow to recognize some of the performance issues which have required letters to be issued by DOE or line managers. The line organizations are engaged in the daily operation of facilities under their oversight responsibilities by ensuring that the contractor conducts their operations and work in a safe manner and in accordance with the contract. This expectation includes providing the contractor with clear and timely notice of issues and safety concerns identified by DOE through routinely conducted performance out briefs and through formal correspondence when warranted. Examples of this are Documented Safety Basis DSA issues involving transuranic (TRU) waste at the Solid Waste Management Facility (see letter from Charlie Hansen to Conner dated 2/10/05), criticality safety issues identified at H-Canyon (see letter from Kevin Smith to WSRC dated 6/08/05), and the industrial and radiological safety issues affecting D&D projects (see letter from William Spader to Devine dated 3/25/05). All of these performance issues resulted in the contractor voluntarily placing their respective projects in operational stand downs. Once identified, the contractor has been prompt to take corrective actions to address the problems identified. The line organizations are tasked by the DOE-SR Manager to validate their basis and rationale for my issuing letters of direction to the contractor or challenge it if they believe there is information that does not support the action. An example where the line organizations and ES&H staff provided sufficient evidence supporting specific direction to the contractor is my 6/15/05 letter addressing Electrical Safety.

The responsibility for line oversight is clearly defined in the SRM 300.1.1B, Chapter 1, Section 1.1, "SR Functions, Responsibilities, and Authorities Procedure (FRAP)". The FRAP provides a mission and function statements for each DOE organizational entity identifying responsibilities assigned to each organization as defined by the DOE Strategic Plan, the Savannah River Site Environmental Management Program Performance Management Plan, and the DOE-SR Organizational Performance Management Plan. Personnel are held accountable for their responsibilities through the annual performance appraisal process.

Specifically, a six month trend assessment is required in the annual assessment plan that typically addresses both events and assessment results.

DOE-SR currently has a process procedure that establishes and maintains appropriate qualification standards for personnel with oversight responsibility. The current procedure is SRM 300.1.1B, Chapter 6, Section 6.1, "DOE-SR Technical Training and

Qualification Program". This procedure is being revised and was submitted to DOE-SR for review and comments. All comments have been resolved and properly dispositioned and the procedure is currently being formatted for the Manager's signature. The revised procedure is titled: DOE-SR Technical Qualification Program and Acquisition Career Development Program Process Procedure. It should be issued shortly.

DOE implements an Employee Concerns Program (ECP), which is available to all SRS employees, in compliance with DOE Order 442.1A, *Employee Concerns Program*. The mechanism for implementing the programmatic requirements within SR is SRIP 400, Chapter 442.1, *Employee Concerns Program*. SR requires that its prime contractors implement ECPs that comply with the Order requirements, accomplished through specific requirements. The DOE ECP is also available to employees of US Forrest Service, SR Ecology Lab, and DOE-managed contracts through provisions of their agreements and/or contracts with DOE regarding operations-related concerns.

All site employees are provided initial information about the ECP by attending General Employee Training and are reminded annually in Consolidated Annual Training. ECP contact information is posted on bulletin boards across the site. Companies on DOE-managed contracts and subcontractors of WSRC and Wackenhut are required to post contact information for the ECP at their respective work sites.

All three ECPs maintain toll-free, 24-hour hotlines, which employees may call to report all types of concerns, including ESH. It is DOE ECPs practice to ensure that, during normal duty hours, the Hotline is answered by ECP personnel, whenever possible, to ensure that all concerns, especially ESH concerns, are addressed expeditiously; however, ECP Hotlines have voice-mail capability for employees to report concerns during off-duty hours. Employees calling during off-duty hours to report imminent danger concerns are instructed to contact the SRS Emergency Operations Center.

DOE O 442.1A has established timeframes for safety-related concerns to be investigated and resolved, based on the severity of the alleged unsafe condition. Concerns received by an ECP identifying imminent danger conditions must be investigated within 24 hours of receipt of the concern. Concerns identifying serious conditions must be investigated within three working days. Concerns identifying other-than-serious conditions must be investigated within 20 working days. Immediately upon receipt of ESH concerns, ECP personnel notify appropriate management and/or ESH organizations in order for the appropriate actions to be taken, such as issuing a Stop Work Order.

Safety-related concerns received by the DOE ECP are coordinated with the appropriate DOE line management with oversight responsibility to determine the appropriate method for investigation of the concern. Since the majority of ESH concerns received by the DOE ECP relate to WSRC operations, the majority of safety-related concerns are referred to the WSRC ECP to investigate. WSRC ECP staff includes investigators with health and safety-related experience appropriate for investigating ESH concerns. A small

percentage of safety-related concerns received by the DOE ECP are investigated by DOE line organizations.

Upon receipt, concern investigation reports are routed to appropriate DOE line management and ESH for review and concurrence. Concern investigations that are inadequate are referred back to the investigating organization for further fact-finding. Upon completion of the investigation and review process, DOE ECP provides a written response, summarizing the results of the investigation, to employees who have identified themselves at the time of raising the concern.

DOE ECP conducts oversight of contractor ECP performance through monthly evaluation reports and meetings with the contractor ECP management. Performance metrics have been established regarding quality of investigation reports and timeliness of concern closure.

In addition to the database that tracks open concerns, DOE ECP maintains a database that tracks corrective actions resulting from substantiated EC investigations. When they concur with EC investigations relating to their line organization responsibilities, DOE line managers commit to ensuring that identified recommendations are implemented. DOE ECP tracks the completion of those corrective actions and periodically assesses the effectiveness of corrective actions identified for concerns.

DOE ECP provides periodic reports and briefings to DOE management regarding concerns received, in addition to complying with quarterly reporting requirements to DOE HQ.

Evaluation: Performance Objective partially met.

Opportunity for Improvement F&IP-3-OFI-1:

DOE has established adequate line management oversight processes per existing DOE-HQ directives. The site continues to upgrade its current tracking and trending databases and coordinate with the contractor(s) to ensure effective and efficient processes are identified and implemented in a timely manner. However, DOE has not completed a compliance and implementation review for DOE O 226.1.

References

WSRC Manual 1Q, *Quality Assurance Manual*

WSRC Manual 12Q, *Assessment Manual*

Standards/Requirements Identification Documents (S/RID) FA 01, *Management Systems*

S/RID FA 02, *Quality Assurance*

WSRC SCD-4, *Assessment Performance Objectives and Criteria*

WSRC Manual 1-01, *Management Policies*

WSRC Manual 1B, *Management Requirements and Procedures*

WSRC Manual 9B, *Site Item Reportability and Issue Management (SIRIM)*

WSRC Manual 11B, *Subcontract Management Manual*

WSRC Manual 1S, *SRS Waste Acceptance Criteria Manual*

WSRC Manual 2S, *Conduct of Operations Manual*

WSRC Manual 11Q, *Facility Safety Document Manual*

WSRC Manual E7, *Conduct of Engineering*

S/RID FA 07, *Engineering Program*

S/RID FA 09, *Conduct of Operations*

WSRC Manual 1-01, MP 5.35, *Corrective Action Program*

S/RID FA 04, *Training and Qualifications*

WSRC Manual 4B, *Training and Qualifications Manual*

WSRC Manual 12Q, Procedure SA-1, *Self-Assessment*

WSRC Manual 12Q, Procedure PA-1, *Performance Analysis*

WSRC Manual 1Q, Procedure 18-4, *Management Assessment Program*

WSRC Manual 1B, MRP 4.23, *Site Tracking, Analysis, and Reporting (STAR)*

WSRC Manual 1B, MRP 4.14, *WSRC Lessons Learned Program*

WSRC SCD-9, *Problem Analysis Manual*

SRIP 200, Chapter 223.4, *Technical Assessment Program*

SRIP 400, Chapter 430.1, *Facility Representative Program*

SRIP 400, Chapter 442.1, *Employee Concerns Program*

SRM 300.1.1B *Human Capital Management Systems Manual*

Contributors

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January 6, 2006
Site Action Plan
F&I Commitment 25 – DNFSB Recommendation 2004-1



DNFSB Recommendation 2004-1
Commitment 25, Feedback and Improvement
Site Action Plan

Approved, Jeffrey Allison, Manager
Savannah River Site

Note: Change Control for this Site Action Plan (SAP) resides with the Site Office Manager, with a cc to NA-10.

January 6, 2006
 Site Action Plan
 F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement F&I-1-OFI-1

This performance objective is considered to be partially met since the WSRC S/RID (contractual requirement) was just recently (12/27/05) changed to incorporate DOE O 226.1. With this S/RID change, WSRC will now complete a Compliance Assessment and Implementation Report within 60 days and will further schedule a revision to the WSRC Quality Assurance Management Plan to document WSRC's Contractor Assurance System. WSRC believes that the fundamental elements of the program are in place, but they are not documented as the Contractor Assurance System as required by DOE O 226.1.

Action	Deliverable(s)	Due Date	Owner / Org
Complete WSRC actions to provide for programmatic compliance with DOE O 226.1.	1. Develop and issue the Compliance Assessment and Implementation Report for DOE O 226.1.	02/24/06	W.L. Luce/WSRC Regulatory Services
(Tracked via STAR 2006-CTS-000288)	2. Revise (and submit for DOE-SR approval) the WSRC Quality Assurance Management Plan, as part of its scheduled annual update, to include a Contractor Assurance System description.	08/31/06	L.A. Vaught/WSRC Quality Services

Responsible Manager: W. L. Luce/WSRC Regulatory Services

January 6, 2006
 Site Action Plan
 F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement F&I-2.2-OFI-1

An identified Opportunity for Improvement is to review field lessons learned organizations' actions regarding the screening of site problems/issues and how potentially applicable field events (including results from the recently implemented sub-contractor Focused Observation Program) are best submitted to the Site Lessons Learned Coordinator for sitewide applicability determination.

Action	Deliverable(s)	Due Date	Owner / Org
Coordinate a review of field lessons learned implementation and process any resulting changes to MRP 4.14. (Tracked via STAR 2006-CTS-000289)	1. Documented review of field lessons learned implementation.	03/31/06	C.R. Hutto/WSRC Regulatory Services
	2. Issue any resulting changes to MRP 4.14.	04/28/06	C.R. Hutto/WSRC Regulatory Services

Responsible Manager: W. L. Luce/WSRC Regulatory Services

Opportunity for Improvement F&I-3-OFI-1

DOE has established adequate line management oversight processes per existing DOE-HQ directives. The site continues to upgrade its current tracking and trending databases and coordinate with the contractor(s) to ensure effective and efficient processes are identified and implemented in a timely manner. However, DOE has not completed a compliance and implementation review for DOE O 226.1.

Action	Deliverable(s)	Due Date	Owner / Org
Complete DOE actions to provide for programmatic compliance with DOE O 226.1.	1. Complete a documented review of DOE requirements included in DOE O 226.1 and a plan addressing corrective action(s) for any identified issue(s).	01/31/06	R. Clendenning/DOE-SRPD

Responsible Manager: R. Clendenning/DOE-SRPD