

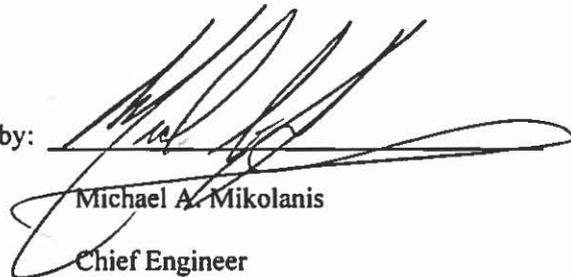
**U.S. Department of Energy
Savannah River Operations Office
SAFETY CONSCIOUS WORK ENVIRONMENT
SELF-ASSESSMENT**

SITE-WIDE SUMMARY REPORT



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EXECUTIVE SUMMARY

Self-assessments were conducted to evaluate the Safety Conscious Work Environment (SCWE) at the U.S. Department of Energy (DOE) Savannah River Operations Office (SR) federal organization and three of its contractors: Savannah River Nuclear Solutions, Savannah River Remediation, and WSI-SRS. Self-assessments were performed between March 2012 and July 2013. Self-assessment teams evaluated observed behaviors and beliefs related to SCWE through the use of structured interviews, document reviews and field observations. This report summarizes the results of those self-assessments and on overall summary of themes affecting SCWE at the Savannah River Site (SRS).

An independent assessment of safety culture was also performed at the Salt Waste Processing Facility Project Office by the Office of Health, Safety and Security. A summary of the methodology and significant results from that independent assessment are included in this roll up report for completeness.

The overall results from the safety conscious work environment assessments indicate safety is a high priority for SRS. This perception was validated during a recent review by the DOE Chief Health, Safety and Security Officer when his team conducted interviews related to the implementation of health and safety programs required by 10 CFR 851. Many of the safety culture expectations of excellence defined in DOE Guide 450.4-1C, *Integrated Safety Management System Guide*, were observed during the performance of self-assessments. Although a chilled work environment was not observed in any organizations assessed at SRS, some findings were identified that could have an adverse impact if not addressed. Interviews indicated bullying and humiliation exist in pockets of some organizations on site and trust issues related to the willingness to bring up safety issues was observed in another organization. These conditions could lead to a chilled work environment if not addressed. A summary of significant themes affecting SCWE at SRS organizations is provided in the following paragraphs.

DOE-SR's self-assessment identified three significant themes that are affecting its SCWE:

1. Interviews indicate bullying and humiliation exists in pockets of the organization. Bullying was reported in interactions both upward and downward within the organization. If not addressed, this situation could eventually lead to conditions favorable to a chilled work environment. A contributing factor to this issue was an employee perception that DOE-SR has not effectively communicated its policies for a retribution-free environment.
2. The majority of staff interviewed had a favorable impression concerning management presence in the field, awareness of issues, and emphasis on safety. There was evidence of open and frequent communication, presence and safety awareness enforced and followed-through upon.
3. In some instances, senior management does not consistently hold poor performers accountable for their level of performance.

Four significant themes were identified to be affecting the SRNS SCWE:

1. Trust and willingness to bring up safety issues: Interviews indicate employees fear some managers' "shoot the messenger" attitude when bringing up problems or bad news. Additional leadership engagement would make employees more comfortable bringing up issues.
2. Communications: Lessons learned and safety alerts are not always received or understood by employees – particularly those that do not have access to email or a computer.
3. Local Safety Improvement Team (LSIT) and Behavior Based Safety (BBS) support and expectations: Interviews indicate employees perceive mixed messages with respect to management support of, and employee participation on the LSIT and BBS activities.
4. New employees and subcontractors: Employees perceive a different set of safety standards exist for subcontractors and they believe the site would benefit from enhanced training on hazard identification for subcontractors and new employees.

Three significant themes were identified to be affecting the SRR SCWE:

1. Problem solving/identification were noted as an overall weakness. This key element of the nuclear safety culture is not recognized by most as a core business for the company.
2. Decisions are not being communicated to strengthen commitment to and understanding of nuclear safety culture.
3. The facility does not have a formal, systematic, and rigorous risk informed approach to decision-making that supports safe and reliable operation.

Three significant themes are affecting the WSI-SRS SCWE:

1. Interviews indicate bullying and humiliation exists in various pockets among the administrative staff. If not addressed, this situation could eventually lead to conditions favorable to a chilled work environment.
2. In general, employees can approach management with safety related issues without concern for retribution; however, some interviews indicate employees may not bring up issues due to management remonstrance of inadequate budget. Further, employees do not feel encouraged or comfortable raising non-safety issues and concerns to supervisors.
3. Insufficient budget and the need to coordinate corrective actions with other contractors represent barriers to effective resolution of reported problems and have led to an employee perception that issues are being heard but not acted upon.

The Secretarial Implementation Plan for Recommendation 2011-1 also committed to evaluating contract incentives and performance metrics when performing the SCWE self-assessments.

DOE-SR reviewed contracts for the three contractor organizations performing self-assessments and concluded contract provisions achieve a reasonable balance between cost/schedule and safety pressures.

Performance metrics generally show decision making reflects a safety first attitude; that managers and supervisors listen to workers and make changes where necessary; and that organizations effectively monitor the SCWE aspects of safety culture. Negative trends in metrics related to equipment status and maintenance are reflective of the current budget challenges at SRS and could eventually impact the ability to support production and safe performance of work. SRS federal and contractor management continues to focus attention upon these metrics and reverse the current trends. Finally, additional work is necessary to define SCWE-related metrics for DOE-SR.

Survey results were generally consistent with self-assessment results for each organization. With the exception of SRR, survey results were positive and consistent with the themes and observations made during each organization's self-assessment. Morale effects of a pending workforce restructuring were concluded to be the likely cause of more negative survey responses for SRR. WSI-SRS survey results were also somewhat negative, but were considered to be consistent with the expectations for the safety culture of a paramilitary organization.

1.0 INTRODUCTION

At the Savannah River Site (SRS), SCWE assessments were performed for five separate organizations. These include DOE-SR, WSI-SRS, SRR, SRNS, and the SWPF Project (SWPF Project Office federal staff and its design-construction contractor Parsons). Four of these organizations (DOE-SR, WSI-SRS, SRR, and SRNS) performed self-assessments per Action 2-5 of the 2011-1 Implementation Plan and one organization (SWPF Project) received an independent review by the Office of Health, Safety and Security (HSS) per Action 2-6 of the 2011-1 Implementation Plan.

SRNS performed its self-assessment between March 12-16, 2012. SRR performed a self-assessment between August 19-24, 2012 and an Integrated Independent Evaluation of the Tank Farms/Effluent Treatment Project in November 2012 to address the supplemental information topics of Reference 2. HSS performed its independent assessment of the SWPF Project during August – September 2012. Finally, DOE-SR and WSI-SRS performed a combined self-assessment starting July 15, 2013, and ending on July 19, 2013.

At a minimum, the purpose of each assessment was to establish a baseline understanding of the organization's SCWE. Assessment results were documented in individual reports for each organization. The information contained within this site-wide summary report provides a summary of those individual assessments and addresses the supplemental information topic described within the Safety Conscious Work Environment Self-Assessment Guidance (Reference 2).

1.1 Team Organization and Composition

DOE-SR and WSI-SRS

A single team was used to assess safety culture at the DOE-SR federal organization and at the Wackenhut Services, Inc. (WSI-SRS). Per Reference 2, the following positions were required:

- **Team leader:** A senior member of the DOE-SR staff was selected as the team leader.
- **Advisor:** The team advisor was selected from the NNSA Savannah River Site Office.
- **Team executive:** The team executive was selected from the NNSA Savannah River Site Office.
- **Safety culture subject matter expert (SME):** The safety culture SME was Chuck Ramsey from Oak Ridge National Lab.
- **Team members:** A total of 21 team members were recruited from DOE-SR, WSI-SRS, and Savannah River Remediation LLC (SRR). The size of the team was based upon what was necessary to complete an assessment of two separate organizations within a 1 week timeframe. One additional team member having subject matter expertise in contracting was recruited to review the special topical area related to contract incentives.

Two additional positions were staffed to provide administrative and logistical support:

- **Data Managers:** There were two data managers – one to manage WSI-SRS data and another for DOE-SR data.
- **Logistics:** The final member of the self-assessment team assisted the team leader with logistical preparations and execution during the assessment.

SRNS

The SRNS self-assessment was performed prior to the issuance of the guidance of Reference 2. SRNS recruited an independent team of corporate personnel experienced in nuclear plant management/operations; nuclear and industrial safety; industrial engineering; DOE facility safety culture review; employ concerns programs; and nuclear safety management. The team leader was a retired executive. This fulfills the intent of the team leader and the team executive functions. An assistant professor of industrial engineering (specializing in research related to high reliability organizations, particularly organizational assessment/performance measurement) assisted the team as a subject matter expert. Four additional senior technical professionals comprised the remainder of the team. The role of team advisor was the only function described in reference 2 that was not represented on the SRNS team. This difference was not considered to be significant given the complete independence of the team as well as the seniority of team members.

SRR

SRR solicited the support of the Institute of Nuclear Power Operations (INPO) to perform their self-assessment. Although the self-assessment was performed prior to the issuance of the guidance of Reference 2, SRR's team composition met the intent of the assessment guidance.

- Team leader: The team leader was manager on loan to INPO. This fulfilled both the team leader and the team executive functions.
- Safety culture subject matter expert (SME): Two safety culture SMEs were recruited from INPO. These SMEs provided expertise in behavioral science and safety culture. They fulfilled both team advisor and SME functions.
- Team members: A total of 13 team members supported the assessment. Seven were recruited from SRR and six were recruited from external organizations.

SWPF Project

The SWPF Project did not perform a self-assessment per Action 2-5 of the 2011-1 Implementation Plan. Instead it received an independent review by HSS per Action 2-6 of the 2011-1 Implementation Plan. Assessment team composition was per HSS protocols.

1.2 Use of Lines of Inquiry

DOE-SR and WSI-SRS

Safety culture Focus Areas and Attributes are described within Attachment 10 of Reference 1. Reference 2 identifies nine SCWE-related Attributes as well as methodologies used to assess behaviors related to an organization's safety culture. The review was performed in accordance with the guidance of Reference 2.

SRNS

Since the SRNS self-assessment was performed prior to the issuance of the guidance of Reference 2, SRNS applied the nine Traits currently used by the Nuclear Regulatory Commission (NRC). SRNS then performed a functional analysis to identify organizational behaviors that were linked to the nine Traits and used to guide the self-assessment. Subsequent to the assessment, SRNS performed a crosswalk of the NRC Traits to the lines of inquiry of Reference 2 in order to confirm appropriate coverage. No significant discrepancies in scope were identified.

SRR

INPO lines of inquiry (Traits and Attributes) were used since the SRR self-assessment was performed prior to the issuance of the guidance of Reference 2. Subsequent to the assessment,

SRR performed a crosswalk of INPO lines of inquiry to the lines of inquiry of Reference 2 in order to confirm appropriate coverage. No significant discrepancies in scope were identified.

SWPF Project

The SWPF Project safety culture review performed independently by HSS utilized its own lines of inquiry vice the guidance of Reference 2.

1.3 Review Methodology

DOE-SR and WSI-SRS

Prior to commencing the self-assessment, DOE-SR enhanced its capability to perform safety culture reviews by consulting with commercial power expertise to benchmark their processes. Consistent with commercial practice, structured interviews were the primary method used to gather data. Structured interviews were conducted using forty one interview questions that have been correlated to the ISM safety culture Focus Areas and Attributes. Working in two person teams, interviewers selected a 10-12 question subset for each 1 hour duration interview.

For review of DOE-SR, independence was provided by pairing the two SRR team members and the safety culture SME with the remaining DOE-SR team members. This resulted in two-two person teams of DOE-SR members, two teams of DOE-SR/SRR members, one team with DOE-SR/EM HQ members, and a final team of the safety culture SME/DOE-SR member conducting interviews on the DOE-SR organization.

SRNS

SRNS adopted the methodology presented by Haber and Barriere¹ to perform its safety culture self-assessment. Haber and Barriere present five methods for collecting information concerning organizational behaviors related to safety culture traits. Two of the methods were applied by SRNS: 1) functional analysis and 2) semi-structured interviews and focus groups.

The purposes of the functional analysis were to 1) identify organizational units; 2) develop an understanding of organizational unit functions and interfaces; 3) examine information flows; and 4) identify key managerial and supervisory positions for each unit. Based upon the results of the functional analysis, SRNS defined organizational behaviors (e.g., attention to safety; coordination of work, organizational learning, etc.) which were correlated to the nine safety culture Traits adopted by the Nuclear Regulatory Commission.

Semi structured interviews were then conducted using questions that had been correlated to its nine safety culture Traits. The set of questions selected were focused upon obtaining information related to safety culture traits from the organizational behaviors identified from the

¹ Haber, S.B. and Barriere, M.T. (1998). "Development of a regulatory organizational and management review method." Research Report RSP-0060, Canadian Nuclear Safety Commission, Research Report, Ottawa, Canada.

functional analysis. During the assessment, 75 interviews and 6 focus groups were conducted with 126 employees. Each interview and focus group lasted approximately one hour.

Documentation reviews and site observations were also used to gather data for assessing SRNS.

Since the self-assessment was performed prior to the issuance of DOE guidance, SRNS performed a cross walk of the interview questions used in the self-assessment against the three safety culture Focus Areas and nine Attributes described in the DOE Integrated Safety Management System Guide to ensure reasonable equivalence in scope.

SRR

Prior to commencing the self-assessment, SRR enhanced its capability to perform safety culture reviews by consulting with INPO to benchmark their process. A pre-assessment survey was administered to identify top performing and underperforming areas related to safety culture. Consistent with commercial practice, the survey results and structured interviews were the primary methods used to gather data. Structured interviews were conducted using questions that had been correlated to the INPO safety culture Traits and related Attributes. Working in two person teams, interviewers selected a 10-12 question subset for each 1 hour duration interview. Each two-person team interviewed one to two employees at a time. During the assessment, 79 interviews were conducted with 110 employees.

SRR's final report also credited performance of an Integrated Independent Evaluation of the Tank Farms/Effluent Treatment Project as part of its self-assessment process. The Integrated Independent Evaluation, performed in November of 2012, was performed as a follow on to the interviews, observations and data analysis of the Nuclear Safety Culture assessment performed in August 2012.

Documentation reviews and site observations were also used to gather data for assessing SRR.

Since the self-assessment was performed prior to the issuance of DOE guidance, SRR developed a cross walk of INPO safety culture Attributes to the three safety culture Focus Areas and nine Attributes described in the DOE Integrated Safety Management System Guide to demonstrate equivalence in scope.

SWPF Project

HSS independent review methods included 1) a functional analysis of the project, 2) structured interviews and focus groups, 3) behavioral anchored rating scales (BARS), 4) behavioral observations, and 5) an organizational and safety culture survey. Details regarding the HSS methodology are described within Reference 7, Appendix B, Section B.4.

2.0 SELF-ASSESSMENT RESULTS

Self-assessment results were obtained in three separate initiatives. The first initiative consisted of self-assessments against the SCWE Focus Areas and Attributes (DOE-SR and WSI-SRS), NRC Safety Culture Traits (SRNS) or INPO Safety Culture Traits and Attributes. The second initiative consisted of a review of supplemental information topics related to 1) contract incentives and 2) performance indicator insights into SCWE. Finally, the third initiative consisted of a seven question EM survey related to SCWE.

The results of these three initiatives to assess SCWE are summarized in the following sections for each organization which performed a SCWE self-assessment.

2.1 SCWE Self-Assessments

Self-assessment results were documented in separate reports for each assessment. The reports generally identified safety culture themes and observations made by the self-assessment teams and included supporting data obtained through interviews, field observations and document reviews. The following paragraphs summarize the themes and observations for the four organizations that performed self-assessments.

DOE-SR

DOE-SR concluded safety is a high priority for the DOE-SR organization. Further, no individuals expressed concerns of retaliation for raising safety concerns. The attitudes and beliefs of DOE-SR align with the Focus Areas and Attributes of Reference 1; however, some observations were identified that could result in adverse impacts if not addressed. The assessment identified three significant themes that are affecting the DOE-SR SCWE :

1. Interviews indicate bullying and humiliation exists in pockets of the organization. Bullying was reported in interactions both upward and downward within the organization. If not addressed, this situation could eventually lead to conditions favorable to a chilled work environment. A contributing factor to this issue was an employee perception that DOE-SR has not effectively communicated its policies for a retribution-free environment.
2. The majority of staff interviewed had a favorable impression concerning management presence in the field, awareness of issues, and emphasis on safety. There was evidence of open and frequent communication, presence, and safety awareness enforced and followed-through upon.
3. In some instances, senior management does not consistently hold poor performers accountable for their level of performance.

The following additional positive and negative observations were identified.

Positive Observations

- The perception of an environment of open communication was generally positive.
- Safety topics are integral to meetings.
- Management uses a variety of tools and techniques to encourage employees to offer innovative ideas, concerns, suggestions, and differing opinions
- Overall, employees felt comfortable raising questions, stopping work as needed and expressing opinions about something they think is not correct.

Negative Observations

- Interview data revealed pockets of inconsistent field presence; engagement, awareness, and knowledge with respect to Management's visibility to DOE staff. Additional areas for improvement are senior management understanding of direction to address safety issues, including assignment of line management actions.
- In some organizations, mistakes were not always used as opportunities to learn.
- Once problems have been identified, many employees do not understand the capabilities resident in the software used to implement DOE's Corrective Action Program.
- There is a lack of, or lack of awareness of, DOE safety indicator tracking and trending (DOE checking DOE)

SRNS

SRNS concluded its overall safety culture was healthy and improving. Further, the self-assessment also concluded production goals are not allowed to override or compromise safety. Finally, through its self-assessment SRNS recognized that contract and budget changes; layoffs/furloughs, organizational leadership changes and revisions to facility safety bases must continue to be monitored as factors affecting its safety culture.

In its final report, SRNS identified 42 "areas in need of attention." No themes or significant issues were identified by the self-assessment team. SRNS then evaluated 35 of the areas in need of attention to close out the items and documented the results in the Site Tracking, Analysis and Reporting system.

DOE-SR reviewed the SRNS self-assessment results as well as the SRNS evaluation of areas in need of attention. As a result of that review the following themes and additional observations were identified:

1. Trust and willingness to bring up safety issues: Interviews indicate employees fear some managers' "shoot the messenger" attitude when bringing up problems or bad news. Additional leadership engagement would make employees more comfortable bringing up issues.
2. Communications: Lessons learned and safety alerts are not always received or understood by employees – particularly those that do not have access to email or a computer.

3. Local Safety Improvement Team (LSIT) and Behavior Based Safety (BBS) support and expectations: Interviews indicate employees perceive mixed messages with respect to management support of, and employee participation on the LSIT and BBS activities.
4. New employees and subcontractors: Employees perceive a different set of safety standards exist for subcontractors and they believe the site would benefit from enhanced training on hazard identification for subcontractors and new employees.

SRR

SRR concluded the attitudes and beliefs of its organization align with the traits of a strong nuclear safety culture documented by the Institute of Nuclear Power Operations (INPO). SRR also concluded the organization demonstrated a respect for nuclear safety that was not compromised by production priorities. No individuals expressed concerns of retaliation for raising safety concerns.

Three significant themes were identified to be affecting the SRR safety culture:

1. Problem solving/identification were noted as an overall weakness. This key element of the nuclear safety culture is not recognized by most as a core business for the company.
2. Decisions are not being communicated to strengthen commitment to and understanding of nuclear safety culture.
3. The facility does not have a formal, systematic, and rigorous risk informed approach to decision-making that supports safe and reliable operation.

While many positive practices were noted during SRR's SCWE self-assessment, the final assessment report focused on areas of improvement. The following negative observations were identified:

Negative Observations

- A systematic and formal process for operational decision making has not been established.
- Management is not sending a consistent message on how resources are prioritized for ensuring nuclear safety during periods of budget uncertainty.
- A formal change management process to guide nontechnical changes does not exist.
- Improvement is needed in the implementation of SRR's clearly stated policy supporting an individual's right to raise safety concerns without fear of harassment, intimidation, retaliation or discrimination.
- Employees voiced a desire for an anonymous feedback system for reporting issues that were not considered to be significant enough to warrant use of the Employee Concern Program or the Differing Professional Opinion Program.
- While SRR has a Differing Professional Opinion Process, most interviews and data revealed that employees are unaware of how to use it and its overall benefit and effectiveness.

- Communications regarding the basis for key decisions should be improved. The team noted that management failed to take advantage of several opportunities to reinforce nuclear safety through their communications following some key decisions.
- The STAR interface for problem identification is perceived to be overly complex and difficult to use for the average user. Some find it intimidating and easy-to-use references are not readily available for the users. Further, it was also noted that expectations regarding when issues should be entered into STAR were not well understood. Multiple alternative issue management systems were found to exist that are being used to collect and track issues.
- Efforts should focus on fully integrating and accepting performance improvement as part of core business. For instance, issue identification (i.e., STAR input) is viewed as a necessary evil focusing on action closure rather than an opportunity for feedback and mistake prevention with a focus on innovation and creative problem solving. Management personnel, at all levels within the organization, were observed placing emphasis on schedule results versus desired results.
- Survey results indicated there is a lack of confidence in the ability of the corrective action program to effectively resolve significant issues in a timely manner. Some stated their belief that symptoms are addressed but that underlying issues are not.
- There is inadequate communication of trend information related to corrective actions. It was noted that the existence of multiple tracking systems makes the trending of issues management data overly difficult.
- The key performance indicators (KPIs) used at the facility level, as well as KPIs used at the SRR level, could use improvement in the area of analysis and data presentation.
- Performance metrics are largely used to status and monitor progress. Data analysis and trending to proactively detect and correct emerging performance issues could be improved.

WSI-SRS

The self-assessment concluded safety is a high priority for WSI-SRS. No individuals expressed concerns of retaliation for raising safety concerns. The attitudes and beliefs of WSI-SRS align with the Focus Areas and Attributes of Reference 1, however, some findings were identified that could result in adverse impacts if not addressed. Three significant themes are affecting the WSI-SRS SCWE:

1. Interviews indicate bullying and humiliation exists in various pockets among the administrative staff. If not addressed, this situation could eventually lead to conditions favorable to a chilled work environment.
2. In general, employees can approach management with safety related issues without concern for retribution; however, some interviews indicate employees may not bring up issues due to management remonstrance of inadequate budget. Further, employees do not feel encouraged or comfortable raising non-safety issues and concerns to supervisors.
3. Insufficient budget and the need to coordinate corrective actions with other contractors represent barriers to effective resolution of reported problems and have led to an employee perception that issues are being heard but not acted upon.

The following additional positive and negative observations were identified.

Positive Observations

- Management is viewed as being visible, engaged and communicating regularly on safety issues and their resolutions. Management displays behaviors where safety issue awareness is demonstrated, enforced, continuously evaluated and issues resolved.
- Employees can approach management with safety related issues without concern for retribution. Employees are encouraged to have open dialogue and debate on issues related to safety and to raise questions during meetings. Management places a high priority on safety concerns and addresses them fairly through established processes.
- Teamwork and cross functional communications are institutionalized within the organization and Safety discussions/topics are integral to meetings and daily operations.
- Overall, credibility, trust, and reporting of errors are valued in the organization.
- WSI-SRS effectiveness reviews are seen as valuable and serve to ensure corrective actions satisfactorily address reported problems.

Negative Observations

- In some areas, management could improve their field presence in order to better appreciate the level of detail required to perform specific tasks.
- Employees do not feel encouraged or comfortable raising non-safety issues and concerns to supervisors.
- Employees readily identified multiple methods of employee award recognition; however, there are pockets of protective force employees that believe good performance is not consistently recognized.
- Interviews indicate bullying and humiliation exists in various pockets among the administrative staff.
- Employees perceive a degree of favoritism exercised by Management.
- Budget and the need to coordinate with other contractors are perceived significant barriers to timely resolution of reported problems.
- WSI-SRS employees are encouraged to participate in performance improvement processes. However, there is a perception that employee opinions/recommendations are not being considered for implementation.

SWPF Project Office

HSS concluded the value of safety is a high priority throughout the SWPF project and is particularly evident in the SWPF contractor organization. However, the assessment identified issues in aspects of communication, coordination of work, and work group cohesiveness. The most significant concern resulting from the assessment was the perception of an adversarial relationship between the DOE Project Office and the SWPF contractor. The HSS assessment team noted a sense of distrust, lack of respect, and a perception of favoritism existed on the project.

In its final report, HSS identified 71 “areas in need of attention.” These “areas in need of attention” represent a collection of employee and management perceptions obtained through interviews and field observations. No other themes or significant issues were identified by the HSS assessment team. When developing an action plan to address issues with its safety culture, DOE-SR will evaluate the “areas in need of attention” to determine whether there are other themes that warrant attention.

2.2 Supplemental Information Topics

2.2.1 Contract Incentives

SRS has three prime contracts. Reference 2 posed a single question related to whether contract incentives achieve a reasonable balance between cost/schedule and safety pressures. DOE-SR reviewed the three contracts and concluded provisions for each contract provide appropriate assurance of safety.

For each contractor organization required to perform a self-assessment, the following paragraphs provide a summary of the results.

SRNS

For the SRNS Contract, fee may be unilaterally reduced by the Contracting Officer, under B.9 DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives. In terms of incentivizing safe performance of work, the B.9 clause (i.e., the “Killer” clause) is significant. Arguably, it requires that all obligations/requirements under the contract be performed safely. Otherwise, fee can and will be adjusted. Other clauses that may be worth mentioning include:

- C-3.4: (a) (“Environment, Safety, and Health (ES&H) which states the Contractor shall include provisions for the protection of human health and safety and environment in all activities for which it has contractual responsibilities...”
- H-34: “Quality Assurance System”
- H-44 “Stop Work and Shut Down Authority - Environment, Safety and Health”
- I.35, which states “the Contractor agrees that it shall affirmatively identify, evaluate, and institute practices, where appropriate, that will improve performance in the areas of environmental and health, safety....”
- I.38, subparagraph (c), which requires the contractor to identify an appropriately tailored set of standards, practices, and controls .
- I.56, subparagraph (s), which states: “Quality Assurance. Contractors shall provide no less protection for the Government in its subcontracts than is provided in the prime contract.”

SRR

For the SRR Contract, one performance based incentive (PBI), SRR2013MGMT-01, directly addresses safety:

“The Contractor shall provide safe, timely, and cost-effective management and execution of the Liquid Waste program. Performance areas evaluated cover all aspects of successful contract execution, with special emphasis on the safe, timely and cost-effective management and execution of Contract Section C, Scope of Work and optimizing liquid waste system performance, i.e., accelerating tank closures and maximizing waste throughput at the DWPF while ensuring sufficient tank space for continued long term operations. Contractor shall be evaluated on efficiency and effectiveness of contract execution; anticipation, identification and avoidance of problems that could adversely impact contract execution; innovation and timeliness in resolution of issues impacting contract execution, and responsiveness to DOE customer needs. Customer service is an implicit performance expectation. The contractor’s performance will be evaluated routinely throughout the period to provide feedback in cross-cutting areas, such as safety, efficient use of trained and qualified human capital, quality, continuous improvement, cost effectiveness, timeliness of deliverables, compliance with contract, etc. The Contractor will work collaboratively with the SR M&O contractor, the Salt Waste Processing Facility Project contractor, and other site contractors as specified in Section J, Appendix N of the contract.

Other than the PBI discussed above, SRR's PBIs do not specifically state that the work must be performed in a safe manner. However, if the contractor does not meet the performance requirements relating to ES&H, fee may be unilaterally reduced by the Contracting Officer, under B.5 DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts (Alternate II) (Jan 2004) (Deviation). For the SRR Contract, the B.5 clause (i.e., the "Killer" clause) is significant. Arguably, it requires that all obligations and requirements under the contract be performed safely. Otherwise, fee can/will be adjusted. Other clauses that may be worth mentioning: C.2.2 ("Environment, Safety, and Health (ES&H) Support and Assurances") and H.3 ("DOE Contract Administration and Oversight"), which states that "DOE oversight activities will focus primarily on ensuring safe operation and management of the Liquid Waste System at SRS."

WSI-SRS

For the WSI-SRS Contract, the B.6 clause (i.e., the "Killer" clause) is significant. Arguably, it requires that all obligations/requirements under the contract be performed safely. Otherwise, fee can and will be adjusted. Other clauses that may be worth mentioning include: C.5.5.1 ("Environment, Safety, Health and Quality Assurances"); H.3 ("DOE Contract Administration and Oversight"), which states (in part) that "DOE oversight activities will focus primarily on ensuring safe operation and management of the site security contract at SRS"; H.25 ("Award Fee Plan"), which identifies "safety" and "regulatory compliance" as factors to be considered when

evaluating performance; and, I.89 ("DEAR 952.223-71 "Integration of Environment, Safety, and Health into Work Planning and Execution"), which states (in part) that "In performing work under this contract, the contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work."

Furthermore, the Fiscal Year 2013 Award Fee Plan states that in order for the Contractor to receive all otherwise earned award fee under the contract in an evaluation period, the Contractor must meet the minimum requirements in paragraphs (a) below. If the Contractor does not meet the minimum requirements, the fee determining official may make a unilateral determination to reduce otherwise earned award fee for the evaluation period.

(a) Minimum requirements for Environment, Safety & Health Program. The Contractor shall develop, obtain DOE approval of, and implement a Safety Management System in accordance with the provisions of the clause entitled, "Integration of Environment, Safety and Health into Work Planning and Execution." The minimal performance requirements of the system will be set forth in the approved Safety Management System, or similar document. If the Contractor fails to obtain approval of the Safety Management System or fails to achieve the minimum performance requirements of the system during the evaluation period, the DOE Operations/Field Office Manager or designee, at his/her sole discretion, may reduce any otherwise earned award fee by an amount up to the amount earned.

Finally, Performance Goal WSI-2013 A-1: Protective Force Operations and Training states "The Contractor shall provide a well-trained, highly motivated Protective Force capable of reliably executing routine and emergency duties, in accordance with DOE directives and site specific requirements, to ensure the overall security and safety of the SRS." Up to 50% of the available Award Fee can be earned for this performance goal. The performance criteria for this goal states "Requirements of the Site Safeguards and Security Plan for all operating conditions are incorporated into Protective Force operating routines. All routine duties are performed in accordance with Security and Post Orders. Protective Force personnel are knowledgeable of and adhere to facility safety requirements. Communications with facility operations management is routinely accomplished for effective integration of security, facility and safety requirements."

2.2.2 Performance Indicators

Reference 2 posed five questions related to performance metric insights into SCWE. For each organization assessed, the following paragraphs provide the question and a summary of the results.

DOE-SR

1. What insight does Performance Assurance System data provide regarding SCWE and whether the organization learns from safety concerns?

There are essentially no formal metrics found that provide data regarding SCWE and organizational learning from safety concerns or issues raised by DOE employees. However, there are three well established DOE programs implemented at DOE-SR that have some relationship to SCWE. These are the Differing Professional Opinion (DPO) Program, Employee Suggestion Process and Employee Concerns Program (ECP).

There has only been one DPO since 2010. Review of the Employee Suggestion Process indicates employees are actively involved in resolving issues. A review of DOE-SR Employee Concerns Program performance indicators indicated that, of the 21 concerns raised in the fiscal year, none were generated by DOE-SR staff. Based upon the SCWE self-assessment interview results, this indicates managers and supervisors are effectively resolving employee issues before they can become a concern.

2. What evidence exists to show decision making reflects a safety first attitude?

DOE-SR has established and implemented procedures for the Employee Concerns Program and Differing Professional Opinions process. Implementation of the Employee Concerns Program was recently independently reviewed and found to be consistent with current requirements; however, some additional effort is needed to bring the Differing Professional Opinion process up to current requirements.

Many of the other metrics recommended in Reference 2 do not apply to DOE-SR (i.e., rate of unplanned LCO entries; rate and nature of procedural violations; and the number of problem identification reports submitted). There were no other formal metrics found that provide data regarding SCWE that show decision making reflects a safety-first attitude.

One area that was investigated was safety support staffing. A recent DOE-SR QA Audit found "DOE-SR Performance Assurance Division is not adequately staffed to implement the required Quality Assurance Program activities." Although a discussion with DOE-SR Human Resources indicated there was no integrated performance measure or metric that was used to facilitate management decisions in balancing priorities between safety-related and administrative staffing demands, recent hires and recruiting priorities were reviewed to assess whether there was a discernible trend regarding how technical and non-technical needs were being staffed. Approximately 71% of the SRS federal staff are technical (198 TQP positions out of 280 authorized positions). An August 27, 2013 recruitment status shows 73% of recent hires were for technical positions (8 of 11). However, only 40% of the top 15 positions prioritized for future filling (6 of 15) were technical positions.

3. What evidence exists to show how effectively the organization monitors the SCWE aspects of their safety culture?

Performance metrics related to assessments, issues, and actions exist, but they cover assessment of contractor activities. None of the measures are specific to DOE-SR self-assessments.

A review was conducted of the status of assessment performance as an indirect measure of how effectively DOE-SR monitors the SCWE aspects of its safety culture. On time performance of planned assessments for technical organizations (ie., AMNMSP, AMWDP, AMIES, OLO, OSQA, and SWPFPO) was assessed. Individual organization performance ranged from a low of 61% completion to a high of 114% completion resulting in a composite completion rate of 86%. While not exceptional, a rate of 14% past due was considered to be acceptable.

Further, a review of DOE self-assessment data was accomplished as part of a recent DOE-SR Quality Assurance Audit. Generally, most DOE self-assessments were found not to raise significant findings - only one example was found that did. Overall; there are no performance indicators related to the number and quality of findings raised in DOE-SR Self Assessments. The recent DOE-SR QA Audit found, "There are no Performance Assurance Division independent oversight activities scheduled that would evaluate DOE-SR activities such as training/qualification, engineering, corrective actions, document control, records control, procurement, and contractor oversight."

4. What evidence exists that demonstrates managers/supervisors perform first hand observations of the work environment, listen to workers, and make changes where necessary?

There is no structured DOE Management Field Observation (MFO) process where managers/supervisors perform observations (assessments) of DOE work environments, activities, or interview with DOE personnel that result in change. DOE MFOs are nearly exclusively focused on contractor activities. However, several unstructured processes exist.

In 2013, the DOE-SR Site Manager held "Buzz Sessions" where he periodically traveled out to meet with DOE staff and supervisors to discuss issues and topics of interest. The manager held a session with each sub-organization twice in Calendar Year 2013. The Site Deputy Manager attends one or two sub-organization "all hands" meetings each quarter. With a few exceptions, both first and second level supervisors are collocated with their staff where they routinely make first hand observations of the work environment. The exceptions to this last statement were noted as a negative observation in the DOE-SR SCWE self-assessment.

5. What evidence exists that demonstrates the organization maintains nuclear facilities in a manner that supports both production and safe performance of work?

DOE-SR does not directly operate or maintain any nuclear facilities.

SRNS

1. What insight does Performance Assurance System data provide regarding SCWE and whether the organization learns from safety concerns?

Performance metrics indicate SRNS operates as an organization that remains interested in learning from employee safety concerns. SRNS tracks this topic through the use of several metrics (Employee Concerns for ESH reprisal; Behavior Based Safety program observations; submissions to the employee suggestion (IDEAS) program; rate of on-time corrective action completion; and percentage of employees participating in continuous improvement initiatives).

Several of these metrics were lower than expected for early Fiscal Year 2013. The Fiscal Year 2013 funding issues have been a significant distraction to the workforce. The Employee Concern for ESH reprisal rate has remained low (below 1 per month) for Fiscal Year 2013. Employee suggestion rate was down slightly in early Fiscal Year 2013, but jumped up significantly during months where prizes were announced for submitting suggestions.

Behavior Based Safety observations have remained strong and are well above the goal established for FY 2013 (400 observations per 200,000 hours, in effect, 1 observation per person per quarter). Corrective Actions completed by their original due date has significantly improved in Fiscal Year 2013 (increased from an average of 83% in 2012 to above 90% in June 2013).

2. What evidence exists to show decision making reflects a safety first attitude?

This area is tracked by SRNS metrics associated with DOE Order 232.2 mandated occurrence reporting (and non-reportable) quarterly trending reports. The Fiscal Year 2013 funding issues have been a significant distraction to the workforce and SRNS entered into deliberate operations to maintain a safety first attitude. Occurrence report rates have decreased in the past year; however, in recent months there has been an increase in operational events and conduct of operations issues, which includes procedure issues. Overall, the rate is still lower than last year.

SRNS procedures for the Employee Concerns Program and Differing Professional Opinions are current.

A newly developed Facility Evaluation Board operations posture metric includes several "safety first" facility metrics such as Fire Systems Impairments, TSR's completed Delinquent or Grace, Preventive Maintenance Deferred, and NCR's more than 180 days old. This metric is being used within the facilities to monitor performance on a monthly basis. The FEB reviews the metric monthly for trends and the facilities discuss performance

during "State of the Plant" and "Operations Excellence Council" reviews both held with senior management.

3. What evidence exists to show how effectively the organization monitors the SCWE aspects of their safety culture?

SRNS actively monitors SCWE aspects of its safety culture. This area is tracked by several SRNS metrics (percent of self-assessments completed on schedule; percentage of self-assessments judged to be adequate in quality; percentage of corrective actions that are self-identified versus externally identified; and occurrence reporting).

From Fiscal Year 2010 to mid-Fiscal Year 2013, the percentage of on time self-assessments has been steadily improving (85% to above 90%). Over the same period of time the quality of self-assessments has also improved (82% to 95%). These metrics are generally showing long term improving trends.

A review of occurrence reports for 7/12 to 7/13 reveals the majority of Significance Category 3 occurrences were related to structure, system and component degradation and most of the Significance Category 2 occurrences were related to nuclear safety analysis inadequacies. Both DOE-SR and SRNS resources are being focused on understanding and addressing the issues associated with these trends.

4. What evidence exists that demonstrates managers/supervisors perform first hand observations of the work environment, listen to workers, and make changes where necessary?

There is significant evidence showing managers and supervisors are getting out observing work and making changes where necessary; however there are opportunities for improvement. This area is tracked by several SRNS metrics (management field observations per 200,000 hours; senior management [General Managers and Executives] field observations per 200,000 hours; and findings/opportunities for improvement generated by management field observations).

From Fiscal Year 2010 to mid-Fiscal Year 2013, the number of management observations per 200,000 hours has more than doubled (less than 100 observations to 207 observations every 200,000 hours). However, during that same period senior management observations peaked (~100 per 200,000 hours) in mid-2011 and then declined to about 40 per 200,000 hours in mid-2013. Management field observations were steady during this period and significantly declined in Fiscal Year 2013 (decrease of about 50%). Although senior management field observations and findings and improvements identified during management field observations declined in FY 2013, activity has increased due to "Disciplined Operations" and Senior Supervisory Watches being put in place as part of the Conduct of Operations corrective action plan at EM Operations.

5. What evidence exists that demonstrates the organization maintains nuclear facilities in a manner that supports both production and safe performance of work?

SRNS monitors this subject through performance metrics related to the corrective maintenance backlog; percentage of maintenance delinquent; percentage of preventative maintenance deferred; and the previously mentioned Facility Evaluation Board operations posture metric. Performance metrics for this topic indicate a significant negative trend in deferred preventative maintenance, delinquent maintenance and a growing maintenance backlog. The Fiscal Year 2013 funding issues significantly contributed to this trend due to productivity and personnel losses when SRNS had to implement furloughs. While measures are being taken to reverse these trends (higher emphasis and additional maintenance personnel) additional resources will likely be needed.

SRR

1. What insight does Performance Assurance System data provide regarding SCWE and whether the organization learns from safety concerns?

Performance metrics indicate SRR operates as an organization that is focused on learning from safety-related issues tracked within the issues management system. SRR monitors the following related metrics as part of its NSC Dashboard: Number of new issues identified in STAR (SRS issues management system); Safety Meeting Attendance; Behavior Based Safety Observations; and Corrective Action Program Timeliness.

New STAR issues are reflective of employee willingness to raise safety-related issues to management in the context of a just organization. During Fiscal Year 2013 this metric has trended relatively constant, with fluctuations occurring principally during times of reduced employee work hours (high vacation periods). The overall year-to-date trend, however, has been fairly level over the last year.

Safety Meeting attendance reflects the open communication forum for safety related topic learning across the company. This indicator trend also has improved during Fiscal Year 2013 and the July metric indicated greater than 95% attendance by employees.

Behavior Based Safety observations were strong but did not always meet company established goals. A significant contributor to this was identified to be distractions associated with the tank farm control room consolidation effort where workers were deeply engaged in job transformations and institutional learning which distracted that portion of the workforce from their normally robust BBS observation performance. Upon completion of this process it is anticipated this portion of the SRR workforce will return to their previous performance level.

Corrective Actions completed on time remained a challenge for SRR during Fiscal Year 2013. SRR personnel routinely closed a steadily increasing number of significant corrective action on or before their scheduled due dates. However, because the number of corrective

actions due increased throughout the year, there was also a corresponding increase in the number of corrective actions which had to be rescheduled and an increase in the number of actions closed after the due date. While the percentage of on-time action item closures remained relatively constant in Fiscal Year 2013, additional SRR management attention is being focused on ensuring on-time completion improves.

2. What evidence exists to show decision making reflects a safety first attitude?

This area is tracked by SRR metrics associated with DOE Order 232.2 mandated occurrence reporting (and non-reportable) trending reports. Occurrence report rates for operational and TSR related events have remained infrequent for SRR operations. Data indicated that there was an increase in the number of DSA/TSR related occurrences from previous years, with most of these events attributed to the discovery of legacy issues. The discovery of this type of issue has been attributed to an increase in questioning by SRR personnel which is indicative of a healthy Nuclear Safety Culture. Additionally, trending of the timeliness of issue categorization for ORPS events in Fiscal Year 2013 demonstrated a strong commitment to prompt understanding of the potential for safety concerns by the management team.

SRR does not maintain a metric related to procedure violations. However, a review of information in STAR for Fiscal Year 2013 demonstrated an extremely low occurrence rate (just over 1 incident per month). This was judged to be relatively acceptable considering the large number of procedures performed on a monthly basis.

SRR follows the site programs for Employee Concerns and Differing Professional Opinion programs. Both of these program procedures are current with upper tier requirements.

As previously discussed, new STAR issues are reflective of employee willingness to raise safety-related issues to management in the context of a just organization. During Fiscal Year 2013 this metric has trended relatively constant, with fluctuations occurring principally during times of reduced employee work hours (high vacation periods). The overall year-to-date trend, however, has been fairly level over the last year.

3. What evidence exists to show how effectively the organization monitors the SCWE aspects of their safety culture?

SRR has established metrics and processes that effectively monitor the SCWE aspects of their safety culture. It has established a Nuclear Safety Culture dashboard that tracks a number of SCWE related performance indicators to monitor the health and trends of this important aspect of operations. The indicators are related to the type of metrics recommended in Attachment 1 to the SCWE Self-Assessment Guidance (Reference 2). Indicators are grouped according to their applicability to the ISMS Safety Culture Focus Areas.

Further, Fiscal Year 2013 showed a consistent level of performance compared to Fiscal Year 2012 in the area of on-time performance of self-assessments scheduled in the SRR Integrated Assessment Plan. However, SRR has only completed approximately 80% of its planned assessments through July 2013. Gapped assessments relate to the functional areas of safety documentation, quality assurance, radcon, and fire protection. Two factors primarily contributed to the 80% completion rate: 1) redirecting assessment resources to support planned readiness assessments and 2) performance of a large number unplanned (emergent) assessments (57 during the period October 2012 through July 2013). If the number of emergent assessments completed was added to the number of planned assessments completed, SRR would have a completion rate of over 90% of the total number of assessments targeted for the period October 2012 to July 2013. Considering the rate of emergent assessments and preparations necessary to support readiness assessments, SRR's self-assessment performance was judged to be healthy.

In Fiscal Year 2013, SRR also began piloting their own version of grading of self-assessments as a learning mechanism. Preliminary evaluation of the data from the first eight months of data revealed no significant fluctuations in the quality of the self-assessments. Mechanisms are being developed to provide corporate learning from the initial year of data.

SRR review of the previous two years of ORPS data indicated that the majority of Significance Category 2 events were related to safety basis related issues (with the majority of these identified to be legacy issues identified through increased scrutiny and questioning during safety basis related management activities). The majority of Significance Category 3 events were related to equipment degradation issues. While the overall number of ORPS events have declined during this period, because there was an increase in the number of Significance Category 2 events the severity index for SRR has increased over the previous year.

4. What evidence exists that demonstrates managers/supervisors perform first hand observations of the work environment, listen to workers, and make changes where necessary?

SRR monitors two different indicators related to this objective. SRR monitors the number of senior managers performing Management Field Observations each month and reports this indicator to SRR's parent company. The indicator has shown an increase in the level of performance to 94% from the value of 84% in Fiscal Year 2012. This is an indicator of increasing senior management attention to work being performed in the field.

Secondly, SRR monitors (collectively) the number of Management Field Observations and the number of those observations which result in the identification of either a finding or an opportunity for improvement. The 25-month trend for this indicator indicates that there has been an overall decline in the total number of Management Field Observations performed; however, the number of Management Field Observations that identified either a finding or improvement opportunity increased. The drop in management field observations has been

attributed to a shift in management focus to prepare for a relatively large number of readiness assessments. While management was still out in the field to assure facility readiness, formal management field observations were not being documented. While there have been fewer documented management field observations, those performed are effectively raising issues for tracking and closure in the corrective action management system.

5. What evidence exists that demonstrates the organization maintains nuclear facilities in a manner that supports both production and safe performance of work?

SRR monitors the maintenance of production facilities through performance metrics, including but not limited to, those related to the Maintenance Program Performance; Fire Protection System Impairment Status; System Health Completions; Temporary Modifications; Schedule Effectiveness; and, Facility Production Performance. Collectively, these indicators are rolled together into a SRR Scorecard encompassing the broad spectrum of SRR indicators and serve as evidence SRR is working to maintain its facilities.

Maintenance performance has shown a slight increase in performance (completed work) during Fiscal Year 2013. Planned maintenance deferrals were reduced during the first part of Fiscal Year 2013 following additional attention from SRR management. The exception to this general trend was PM deferrals waiting for outage periods to complete which resulted in a late year reversal of this trend. This overall trend accompanied the elimination of delinquent PMs within all SRR facilities. However, trending of open maintenance backlog showed approximately a 25% rise (negative trend) over the last 12 months. This is indicative of a need for additional resources and continued management attention.

Management of temporary modifications, especially those that have been installed for greater than 90 days, is an indicator maintained by the operating organizations and rolled up in the SRR Scorecard. The July 2013 scorecard showed that this indicator was in the "good" category. The same scoring exists for fire protection impairments and system health reports. Individual facility performance, identified against mission goals for the various facilities, is reflected in indicators such as tank space available, saltcrete poured, and glass canister production. Defense Waste Processing Facility glass canister production following implementation of system upgrades achieved its highest productivity for any month since its inception. Indicators show a similar high level of success for Saltstone productivity. Both of these results demonstrate the high degree of facility / systems availability resulting from the effective management of these facilities.

WSI-SRS

1. What insight does Performance Assurance System data provide regarding SCWE and whether the organization learns from safety concerns?

Performance metrics indicate WSI-SRS operates as an organization that remains interested in learning from employee safety concerns. WSI-SRS documents demonstrate that employees

are involved in identifying and working on improvement initiatives in their workplace. WSI-SRS has an employee suggestion program (ELITE) which rewards employees for submitting suggestions to improve safety or operational outcomes. Employees receive awards based on the impact of their suggestions. WSI-SRS has received 75 employee suggestions in FY13, of which 18 have been implemented. To date WSI-SRS has received nine issues through the Employee Concerns Program, eight of which have been resolved. WSI-SRS has received no issues through the Differing Professional Opinions Process in FY13.

2. What evidence exists to show decision making reflects a safety-first attitude?

WSI-SRS' procedures for the Employee Concerns Program and Differing Professional Opinions are current.

3. What evidence exists to show how effectively the organization monitors the SCWE aspects of their safety culture?

WSI-SRS appears to be effectively monitoring the SCWE aspects of their safety culture. WSI-SRS has an assessment schedule that is designed to ensure that all areas of the organization are regularly assessed through scheduled audits and surveillances. For FY13, WSI-SRS has scheduled 15 audits and surveillances. None are overdue and one was cancelled because the topical area had received sufficient assessment in the current FY. These assessments result in an average of 5 Findings or Opportunities for Improvement each. Year-to-date, WSI-SRS has identified 82% of all its issues through its internal assessment processes. The Quality Assurance Department has a very low turnover rate. Only one employee has left the Department since January 2012, for an internal promotion. Approximately half the department has been in their positions for more than 20 years.

4. What evidence exists that demonstrates managers/supervisors perform first hand observations of the work environment, listen to workers, and make changes where necessary?

WSI-SRS has a defined Management/Executive Walkdown program that schedules and tracks all managers and executives to conduct walkdowns of employee work areas, listen to employees, and address identified issues. Managers and Executives complete reports of their walkdowns and submit them to the Quality Assurance Issues Analyst. Issues that require Causal Analysis or formal Corrective Action Plans are entered into STAR. Year to Date, WSI-SRS has scheduled 37 Management/Executive Walkdowns, of which 35 (95%) have been completed.

5. What evidence exists that demonstrates the organization maintains nuclear facilities in a manner that supports both production and safe performance of work?

WSI-SRS does not operate or maintain any nuclear facilities.

2.3 Environmental Management Survey Results

As addressed in Sections 2.1 and 2.2 of this report, Reference 2 defined the SCWE Focus Areas, Attributes and supplemental information topics to be addressed in site self-assessments. Subsequent to the issuance of Reference 2, EM issued guidance to implement a seven question survey and report back the results. The results of that survey at SRS are tabulated below.

2.3.1 Survey Data

DOE-SR

Question	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I am responsible for ID problems	0	0	0	1	5	39	88
I can challenge decisions	1	10	5	8	29	45	35
I feel free to approach management	2	2	2	4	18	49	56
Management wants concerns reported	2	3	4	6	20	59	39
Management ensures concerns are addressed	2	4	5	10	24	57	31
Helpful criticism is encouraged	4	5	6	7	23	59	29
Management does not tolerate retaliation	2	5	5	19	15	46	41

SRNS (personnel working EM projects)

Question	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I am responsible for ID problems	8	10	7	33	121	965	2117
I can challenge decisions	71	99	150	258	666	1222	795
I feel free to approach management	34	53	70	141	393	1254	1316
Management wants concerns reported	31	49	97	176	494	1325	1086
Management ensures concerns are addressed	38	50	101	225	657	1389	801
Helpful criticism is encouraged	45	78	124	358	663	1319	674
Management does not tolerate retaliation	43	67	83	391	357	1310	1008

SRR

Question	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I am responsible for ID problems	121	34	28	86	141	277	951
I can challenge decisions	132	131	159	295	343	250	323
I feel free to approach management	111	100	122	177	228	321	571
Management wants concerns reported	101	114	122	238	302	325	419
Management ensures concerns are addressed	97	120	133	277	347	310	342
Helpful criticism is encouraged	97	127	154	292	343	287	328
Management does not tolerate retaliation	108	89	124	236	205	338	528

WSI-SRS

Question	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I am responsible for ID problems	11	3	5	28	25	141	207
I can challenge decisions	52	58	32	48	86	93	50
I feel free to approach management	27	40	32	34	71	126	88
Management wants concerns reported	28	34	33	52	77	130	65
Management ensures concerns are addressed	27	38	33	46	86	126	62
Helpful criticism is encouraged	38	43	33	69	80	106	51
Management does not tolerate retaliation	42	31	26	86	53	118	63

Savannah River Site Overall

Question	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I am responsible for ID problems	140	47	40	148	292	1422	3363
I can challenge decisions	256	298	346	609	1124	1610	1203
I feel free to approach management	174	195	226	356	710	1750	2031
Management wants concerns reported	162	200	256	472	893	1839	1609
Management ensures concerns are addressed	164	212	272	558	1114	1882	1236
Helpful criticism is encouraged	184	253	317	726	1109	1771	1082
Management does not tolerate retaliation	195	192	238	732	630	1812	1640

2.3.2 Preliminary Survey Data Evaluation

DOE-SR performed a preliminary evaluation of the survey data. In evaluating data, neutral responses were counted as negative results. In other words, if a survey respondent provided a neutral response to the statement “I can challenge decisions,” it was assumed the respondent was not likely to challenge decisions.

Overall, DOE-SR responses were very positive. Positive rates were above 80% for six of the seven survey questions. A slightly lower rate of positive responses (76.7%) was observed for the statement “Management does not tolerate retaliation.” This lower rate is consistent with the self-assessment theme that pockets of bullying and humiliation exist in the organization. The overall results were consistent with the Observations and conclusions from the DOE-SR self-assessment.

Overall, SRNS responses were very positive. Positive rates were above 80% for all seven survey questions. The lowest rates of positive responses were observed for the statements “Helpful criticism is encouraged” (81.4%) and “Management does not tolerate retaliation” (82.1%). These lower rates are consistent with the self-assessment theme that interviews indicate employees fear some managers’ “shoot the messenger” attitude when bringing up problems or bad news. The overall results were consistent with the Observations and conclusions from the SRNS self-assessment.

Overall, the SRR responses were not very positive. While employees felt responsible for identifying problems (83.5%), responses for the other six survey questions ranged from 56% up to a high of 69%. SRR included seven questions from the INPO survey previously administered in 2012. Mean scores for the seven INPO survey questions were also lower for all seven questions. These results significantly differed from the self-assessment results obtained in 2012. SRR safety culture experts reviewed the survey results and internal/external events that might affect the organization’s safety culture. SRR safety culture experts evaluated the change and concluded the negative morale impacts of a pending workforce restructuring was the likely cause for the more negative survey results. When the survey was administered, SRR was preparing for a workforce restructuring which was expected to result in significant changes. The pending restructuring had significant impacts to morale in the organization. In an environment of a potential workforce restructuring, workers were less likely to “cause waves” by raising issues and more likely to be angry about possible reductions to the workforce. This rationale is consistent with the relatively large negative responses (i.e., “strongly disagree” and “disagree”) that were observed for all seven EM survey questions. DOE-SR agrees with SRR’s conclusions.

The negative impacts to SRR’s safety are expected reverse itself once the disturbance caused by the workforce restructuring settles out.

Overall, the WSI-SRS responses were not very positive. While employees felt responsible for identifying problems (88.8%), responses for the other six survey questions ranged from 55% up to a high of 68%. The lowest rates of positive responses were observed for the statements “I can challenge decisions” (54.6%), “Helpful criticism is encouraged” (56.4%) and “Management does

not tolerate retaliation” (55.8%). These lower rates are consistent with the self-assessment theme that pockets of bullying and humiliation exist within the organization, particularly within the administrative staff (i.e., not within law enforcement or protective forces). Low positive responses for “Management wants concerns reported” (64.9%) and Management ensures concerns are addressed” (65.6%) are consistent with the self-assessment theme that low budgets are having a negative impact on employee willingness to raise nonsafety related issues and employee perceptions that low budgets impair management’s ability to resolve issues when raised. The overall results were consistent with the organization’s self-assessment results and with the safety culture expectations for a paramilitary organization like WSI-SRS.

3.0 ACTIONS TAKEN TO ADDRESS SELF-ASSESSMENT RESULTS

DOE-SR

DOE-SR completed its self-assessment in late July 2013. An action plan is being developed to address observations made by the self-assessment team.

SRNS

Shortly after completing its self-assessment in 2012, SRNS identified five actions as opportunities for improvement. These actions were entered into the Site Tracking, Analysis, and Reporting (STAR) system.

1. Continue along the current path of Senior Management personal emphasis on safety priority and improvement initiatives.
2. Complete the “Call to Action” deliverables and the resulting safety improvement initiative.
3. Strengthen communication regarding safety improvement initiatives overall and evaluate methods that will focus the SRNS safety culture vision on new employees and subcontractors.
4. Strengthen management support of Local Safety Improvement Teams (LSITs), particularly at the first and second line manager level.
5. As a follow up to this assessment, SRNS should conduct a robust employee safety culture survey and perform a focused on-site assessment of work activities across the site to validate the safety culture, employee work practices, and safe execution of work. Consistent application of the Management Field Observation program would be an excellent method to validate the safety culture and afford leadership the opportunity to coach and re-enforce expected safe behaviors.

Action number 2 (above) recommended completion and implementation of a safety “Call to Action” plan developed by SRNS to renew and redouble its efforts to prevent incidents and accidents at SRS. The plan outlines actions the contractor has taken to drive a cultural transformation in safety. Development of the Call to Action plan was performed concurrently

with efforts to perform a self-assessment of SRNS safety culture. Ten teams, led by executives and managers, reviewed safety concerns related to 10 topical areas:

- Communication – How do we effectively communicate safety?
- Safety Leadership – what do we need to do to lead by example for safety?
- Training – Is our safety training effective and adequate?
- Safety Vision, Culture – What is our common vision and expectations for safety?
- Metrics – Do we have the correct metrics for safety?
- Recognition/celebration – Do we recognize safety successes?
- Individual Accountability - How do we enhance individual accountability as one of the critical elements of a strong safety culture?
- Safety Organization – How do we enhance/improve safety programs, committees, and effectiveness of existing initiatives?
- Willingness to Challenge – What can we do to address concerns that workers are reluctant to challenge each other regarding potentially unsafe work practices?
- Workforce Change Management – How do we maintain our safety posture in light of ongoing changes?

Recommendations from these 10 teams were then prioritized for implementation with the objective of implementing the most urgent tasks by the end of calendar year 2012.

Action number 1 (above) recommended the need for senior management to place personal emphasis on safety and improvement initiatives. SRNS has identified safety improvement programs, several of which were noted in the Call to Action plan. Examples include development of management field observation training with relevant tools; training to strengthen leadership skills of first line managers and shift operation managers; and requirements for senior facility managers to lead monthly safety meetings.

For action number 3 (above), SRNS developed videos and other materials aimed at helping new employees challenge practices or behaviors they observe in the workplace. For example, the “See something, say something” campaign is an element of the “Safety begins with me” campaign where SRS employees fully expect their coworkers, including subcontractors, to proactively speak up and immediately stop work whenever they perceive a potentially unsafe condition to exist. Additionally, SRNS training personnel produced a video currently being used in all GET training (both subcontractor and new hire employee's) that helps indoctrinate the main principles of safety culture at SRNS.

Regarding action number 4 (above), a new LSIT Charter was prepared by the LSIT Forum and clarifies the roles of the LSITs, Management's responsibility, and sets the stage for improved communication between the LSITs through the quarterly LSIT Forum meeting. The quarterly LSIT Forum meetings have been enhanced with training, communication and Lessons Learned sharing opportunities.

Roles, Responsibilities, Actions and Accountability were re-emphasized to managers through the Front Line Managers Leadership Workshop and were covered in the Mid-Level Management Leadership Workshop held in Fiscal Year 2013.

Regarding action number 5 (above), SRNS conducted an employee engagement survey in May 2012. The results of the survey were factored into ongoing activities related to the Call to Action plan.

As discussed in Section 2.1 of this report, additional SCWE themes and observations were identified following a DOE-SR review of the SRNS self-assessment results. An action plan is being developed by SRNS to address these additional themes and observations.

SRR

SRR issued a revised Nuclear Safety Culture Improvement Plan in July 2013. The plan lists a set of actions to address the three themes that were identified in SRR's self-assessment. These topical themes included:

- Communications supporting nuclear safety culture improvements
- Operational decision making and change management
- Problem identification and issue resolution

SRR is implementing a workforce restructuring that will impact the completion dates set in the Nuclear Safety Culture Improvement Plan. The plan is being revised to address those impacts. The following paragraphs describe the status of completing actions and the new forecast dates for completing all remaining open items.

Communications: SRR bench marked practices at a nearby commercial nuclear power facility (Plant Vogtle) to identify multiple organizational levels and venues for communicating nuclear safety topics. Seven actions were identified under this topic. Five are completed and the final two actions are scheduled to be completed by the end of December 2013.

Decision making and change management: SRR identified a need for 1) a structured change management program for use when significant modifications are made to non-technical programs or processes and 2) a structured operational decision making process. Six actions were identified under this topic. The scope of actions included bench marking at other nuclear facilities, developing a change management framework, flowcharting decision making processes, developing decision making tools, and final implementation of a change management program. Four actions have been completed and the last two are scheduled to be completed by the end of March 2014.

Problem Identification/Resolution: SRR identified a need to enhance its problem identification and issue resolution processes. The objective of enhancing the process is to increase the number of self-identified issues; ensuring resources applied to correct/prevent problems is commensurate with problem significance; decreasing the number of repeat issues; and improve customer

satisfaction with SRR's ability to self-identify and correct problems. Ten actions were identified for this topic. The scope of actions included benchmarking problem identification processes at other nuclear facilities (Plant Vogtle, VC Summer, Kansas city, and Hanford); implementing a drop box method for submitting issues; enhancing trending capabilities; and assignment of additional resources to support safety culture improvements in facilities. Four of the 10 actions identified have been completed and the remaining actions are scheduled to be completed by August 2014.

WSI-SRS

WSI-SRS completed its self-assessment in late July 2013. An action plan is being developed to address observations made by the self-assessment team.

SWPF Project

The most significant conclusion identified in the HSS independent assessment of safety culture on the SWPF Project was the negative impact of the adversarial relationship between the DOE project office and Parsons (the design/build/operate contractor). Both DOE and Parsons have made personnel and organizational changes in an effort to improve the level of trust and respect between the two organizations. These actions have resulted in improved management performance as noted in a recent construction project review of the Salt Waste Processing Project. DOE-SR continues to monitor the relationship as the project completes negotiations necessary to develop a revised contract for project completion.

HSS identified other interview results as "areas in need of attention" in its final report. DOE-SR and the SWPF Project Office will evaluate these other issues as the operations office develops an action plan to address the broader observations made by the DOE-SR self-assessment team.

4.0 CONCLUSIONS

The results indicate safety is a high priority for SRS. This perception was validated during a recent review by the DOE Chief Health, Safety and Security Officer when his team conducted interviews related to the implementation of health and safety programs required by 10 CFR 851. Many of the safety culture expectations of excellence defined in DOE Guide 450.4-1C, *Integrated Safety Management System Guide*, were observed during the performance of self-assessments. Although a chilled work environment was not observed in any organizations assessed at SRS, some findings were identified that could have an adverse impact if not addressed. Interviews indicated bullying and humiliation exist in pockets of some organizations on site and trust issues related to the willingness to bring up safety issues was observed in another organization. These conditions could lead to a chilled work environment if not addressed.

DOE-SR reviewed contracts for the three contractor organizations performing self-assessments and concluded contract provisions achieve a reasonable balance between cost/schedule and safety pressures.

Performance metrics generally show decision making reflects a safety first attitude; that managers and supervisors listen to workers and make changes where necessary; and that organizations are effectively monitor the SCWE aspects of safety culture. Negative trends in metrics related to equipment status and maintenance are reflective of the current budget challenges at SRS and could eventually impact the ability to support production and safe performance of work. SRS federal and contractor management continues to focus attention upon these metrics and reverse the current trends. Finally, additional work is necessary to define SCWE-related metrics for DOE-SR.

Survey results were generally consistent with self-assessment results for each organization. With the exception of SRR, survey results were positive and consistent with the themes and observations made during each organization's self-assessment. Morale effects of a pending workforce restructuring were concluded to be the likely cause of more negative survey responses for SRR. WSI-SRS survey results were also somewhat negative, but were considered to be consistent with the expectations for the safety culture of a paramilitary organization.

5.0 REFERENCES

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- 2) *Safety Conscious Work Environment Self-Assessment Guidance*, Revision G.
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- 4) *Safety Call to Action Plan*, Savannah River Nuclear Solutions, 2012.
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- 6) *Nuclear Safety Culture Improvement Plan*, SRR-ESH-2013-0016, Revision 2, Savannah River Remediation, July 2013.
- 7) *Independent Oversight Assessment of Nuclear Safety Culture at the Salt Waste Processing Facility Project*, Office of Safety and Emergency Management Evaluations, Office of Health, Safety and Security, January 2013.
- 8) *Safety Conscious Work environment Self-Assessment, WSI Final Report*, Savannah River Operations Office, Department of Energy, July 2013.

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- 10) *Contract No. DE-AC09-08SR22470 with Savannah River Nuclear Solutions LLC*, Savannah River Operations Office, Department of Energy, updated June 11, 2011.
- 11) *Contract No. DE-AC09-09SR22505 with Savannah River Remediation LLC*, Savannah River Operations Office, Department of Energy, original contract issued December 8, 2008.
- 12) *Contract No. DE-AC30-10CC60025 with Wackenhut Services, Incorporated*, Savannah River Operations Office, Department of Energy, updated July 8, 2013.
- 13) *Department of Energy Review Committee Report on the Construction Project Review of the Salt waste Processing Project at the Savannah River Site*. Department of Energy, June 2013.