
U.S. Department of Energy

**Initial Implementation Assessment
of the
Savannah River Site Office
Safety System Oversight Program**

Final Report

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Assessment Team

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EXECUTIVE SUMMARY

Initial implementation of the Safety System Oversight (SSO) function being established at the Savannah River Site (SRSO) was reviewed by two Senior Technical Safety Managers to assess efforts to implement the program. The scope of the review included SRSO plans for the SSO Program, Training and Qualification of SSOs, and program Management. Oversight Performance was not reviewed as the program was in the initial stages of implementation and had not reached the performance phase. The review included interviews with key SRSO personnel involved with administration and management of the SSO program, and document reviews of completed and draft SSO program documents.

The review concluded that SRSO is making progress towards developing and implementing an effective SSO program. Some noteworthy practices were observed and several actions are needed to mature the program to adequately support the requirement to implement the SSO function, which meets or exceeds the requirements of DOE M 426.1-1A for SSO implementation by 9/30/05. The assessment team recognized several noteworthy practices and opportunities for improvement:

Noteworthy Practices(NP):

DOE SRS has developed several Safety Systems Oversight SRSO is utilizing. These courses provide an excellent opportunity for other DOE SSO candidates and could be offered to the complex.

The use of web based courses and information for SSO self study enhances the availability of necessary training.

Utilization of specific lines of inquiry to assess VSS adequacy.

Opportunities for Improvement(OFI):

The NNSA/SRSO SSO Technical Qualification Standard and associated Self Study Achievement Standard are currently in draft form.

The FRAM currently identifies responsibilities for Systems Engineering Oversight for the VSS. It should be updated to incorporate responsibilities of the SSO program.

An implementing procedure identifying the process for the NNSA-SRSO technical qualification program is needed.

A position description has not yet been developed and performance expectations have not been documented in Individual Development Plans (IDPs)/Individual Performance Plans (IPPs) for their SSO personnel.

Personnel assigned SSO responsibilities have not been formally communicated to contractor management.

A staffing analysis should be conducted to validate staffing levels for implementation of the SSO program for existing systems and for the addition of Tritium Extraction Facility (TEF) systems.

The Qualifying Officials list is outdated and should be updated to include SSO requirements.

The qualification card should be updated to define clear and consistent expectations for safety significant and vital safety systems.

The qualification card should be updated to include elements of the Safety Management Program Plans.

A documented process for identifying and tracking completion of SSO requirements should be developed.

A greater level of detail should be considered in areas of engineering and systems. (Vertical slice of the System)

DOE-SR qualification requirements should be included in the qualification card.

SSO courses currently being taken by SSO personnel were not reflected on the SSO qualification card.

The STSM qualification card should be updated to incorporate SSO requirements.


A plan to link the SSO performance assessment requirements to the NNSA annual assessment plan is needed. Currently, the plan only included VSS assessments.

NNSA-SRSO should document SSO roles and responsibilities and interaction with other SMEs, (FRs/AB, etc.) and the contractor.

The annual assessment plan identifies self-assessment requirements for safety, security and oversight. SSO program self-assessment should be included and specifically identified in the schedule.

Recommendation

To assist the coordination and completion of the implementation of the SSO program, NNSA-SRSO should consider the development of a project plan and include the following actions:



Finalize Draft Qualification Standards
Accomplishment and tracking of the SSO qualification progress
FRAM update
Conduct Staffing Analysis
IDP/PAP revisions
Qualification Card Revisions (SSO and STSM)
Qualifying Official List update
Documentation outlining SSO integration into office (FR interface, contractor interface)
Development of a TQP implementing procedure

INTRODUCTION

In May 2004, the Department of Energy (DOE) institutionalized the Safety System Oversight (SSO) function to monitor the performance of systems relied upon to assure safe operation of nuclear facilities and evaluate effectiveness of the Contractor's cognizant system engineer program. The SSO function, including roles and responsibilities of personnel assigned this function, are described in DOE M 426.1-1A, *Federal Technical Capability Panel Manual*. DOE M 426.1-1A also defines the knowledge, skills and abilities to be incorporated into technical qualification programs for personnel assigned the SSO function.

The objective of this review is to assess initial actions taken by the Savannah River Site Office (SRSO) to implement the SSO function. The reporting format described in DOE M 426.1-1A was used to document the review results.

SCOPE and METHODOLOGY

The review was performed by the YSO Assistant Manager for Operations Management and the Acting Assistant Manager for Technical and Engineering from the Y-12 Site Office (YSO). Both individuals are qualified Senior Technical Safety Managers. Criteria and Review Approach Documents (CRADs) utilizing the information available via the Federal Technical Capabilities Panel (FTCP) were used to assess actions initially taken to define and implement the SSO function at SRSO. Full implementation at SRSO will be assessed before the end of FY05. The CRADs are located in Attachment A of this report.

The review was performed by conducting an assessment of SSO program documents developed by SRSO and on-site interviews with line management and personnel assigned SSO functions. The results of document reviews and interviews are documented in the "Results" section of this report and organized by the CRAD functional areas: Program (PGM); Training and Qualification (TQ); and Management (MG). Since NNSA-SRSO had not progressed to the point of conducting SSO oversight, the Oversight Performance (OP) area was not reviewed.

PGM, TQ and MG functional area assessment consisted of document review and management interviews assessing SRSO action to implement the SSO functions described in DOE M 426.1-1A.

Documents reviewed:

SRS Tritium Facility SSO Self Study Achievement Standard (draft)

SRS SSO Technical Qualification Standard (draft)

SRSO FRAM

Technical Assessment Program Document

Qualification Cards for SSO candidate – existing qualification Records

Performance Appraisal Plan for SSO candidate
NNSA Technical Qualification Program
2005 Annual Assessment Plan
VSS Assessments Lines of Inquiry
General Safety System Oversight Qualification Standard
WSRC Systems Lessons Study Guides (Fire Protection System, TF Tritium
Monitoring System)
SRSO Training Procedure
SRS Safety System Oversight Courses

Personnel interviewed include:

- Division Director of Operations, SRSO
- SR SO Candidate
- SRSO Facility Representatives
- SRSO Training and Qualification Personnel

RESULTS

Program (PGM)

The review performed under this functional area addressed actions taken by the SRSO Director of Operations to establish the SSO function and describe its implementation.

The SSO function is currently defined in the Savannah River Site Office Draft SSO Technical Qualification Standard. **(OFI)The NNSA-SRSO SSO Technical Qualification Standard and associated Self Study Achievement Standard is currently in draft form.** The standard represents SRSO management's intent to develop and implement a program to implement the SSO function. Section 2.0 of the Standard describes inclusion of SSO qualifications as part of the Technical Qualification Program. **(OFI)The FRAM currently identifies responsibilities for Systems Engineering Oversight for the VSS. It should be updated to incorporate responsibilities of the SSO program.** Section 3.0 describes expectations regarding training and qualification of SSO candidates. Roles, responsibilities and authorities of personnel assigned SSO responsibilities are identified in the draft Qualification Card. **(OFI) An implementing procedure identifying the process for the NNSA-SRSO technical qualification program is needed.** Elements of the procedure should include a provision for the STSM card update; updated Qualifying Officials listing; and establishment of a process for qualifying officials.

A qualification schedule for the SSO candidate has been defined and a balance has been achieved between the SSO qualification schedule and day-to-day work assignments. **(OFI) A position description has not yet been developed and performance expectations have not been documented in Individual Development Plans (IDPs)/Individual Performance Plans (IPPs) for their SSO staff.** An Individual Development Plan for the SSO position should be developed.

The SSO Program was reviewed to determine if safety systems and safety management programs are included and align with the systems and programs identified in the Documented Safety Analysis (DSA). Safety systems are prescribed in the draft NNSA/SRSO SSO qualification card.

The Site Manager plans to provide formal correspondence to the VP, Defense Programs, WSRC. **(OFI) Personnel assigned SSO responsibilities have not been formally communicated to contractor management.**

Staffing actions were discussed with supervisors to determine how current and future SSO staffing needs were being met and maintained. Coverage and staffing necessary to implement the SSO function at SRSO is not documented. These actions were primarily based upon line management's judgment following a review of systems and programs credited in safety basis documents. Coverage and staffing needs for the Tritium Facilities has been defined in the SSO Qualification Standard. Three systems have been identified which identified 14 major components. One individual has been assigned responsibility for the systems and associated components. An SSO staffing analysis has not been completed. **(OFI) A staffing analysis should be conducted to validate staffing levels for implementation of the SSO program for existing systems and for the addition of Tritium Extraction Facility (TEF) systems.**

Training and Qualification (TQ)

The review performed under this functional area addressed actions taken to ensure SSO personnel and supervisors with responsibilities for SSO personnel are appropriately trained and qualified. Section 2.0 of the Qualification Standard requires supervisors with responsibilities for SSO personnel to maintain STSM qualifications. These responsibilities are assigned to the Division Director for Operations and the Deputy Manager.

The Draft NNSA/SRSO qualification card describes the processes to qualify SSO candidates and evaluate their level of knowledge. The process requires candidates to complete a separate qualification card developed for each assigned safety system or safety management program. Level of knowledge regarding qualification card competencies is confirmed through interviews with a qualifying official. Overall readiness is determined through satisfactory completion of performance assessments, a satisfactory Safety System walk down with the SSO supervisor, a final written exam, a final oral review board, and an interview with the SRSO Assistant Manager and the Site Deputy Manager. **(OFI) The Qualifying Officials list is outdated and should be updated to include SSO requirements. (OFI) The NNSA/SRSO SSO Technical Qualification Standard and associated Self Study Achievement Standard is currently in draft form.**

Interviews were conducted to assess understanding of the roles and responsibilities assigned to the SSO. Division Manager expectations were generally consistent with the Qualification standard. Line management expected personnel assigned SSO responsibilities to have a level of knowledge equivalent to Contractor cognizant system engineer for assigned systems/programs but the depth of their oversight is not consistent. **(OFI) The qualification card should be updated to define clear and consistent expectations for safety significant and vital safety systems.** Draft SSO qualification cards and draft self-study achievement standards have been developed for safety-related systems at SRSO. Systems and programs credited in the Tritium DSA were reviewed and found to be consistent with the SRSO list of qualification cards. However, safety management programs identified in the qualification standard were not included in the draft qualification card. **(OFI) The qualification card should be updated to include elements of the Safety Management Program Plans.**

SSO qualification at SRSO is accomplished through self-study of assigned systems and left to the initiative for each candidate to complete. A self study achievement standard is developed and is currently in draft. This standard needs to be reviewed and approved by the SSO supervisor and the SRSO Site Manager. The self-study of systems is being supplemented with formal training provided from both DOE-SR and WSRC training programs. **(NP) DOE SRS has developed several Safety Systems Oversight courses, which SRSO is utilizing. These courses provide an excellent opportunity for other DOE SSO candidates and could be offered to the complex.**

Additionally, **(NP) the use of web based courses and information for SSO self study enhances the availability of necessary training.** SRSO management have established final qualification dates (9 months) and have not yet established a system for tracking qualification progress. **(OFI) A documented process for identifying and tracking completion of SSO requirements needs to be developed.**

Review of the draft qualification card was conducted and interviews were conducted with candidates and supervisors to determine how the SSO candidates meet the SSO knowledge, skills and abilities specified in the FTC Manual. The qualification cards are written at a general level and knowledge of systems is established at a working level familiarity. **(OFI) A greater level of detail should be considered in areas of engineering and systems. (Vertical slice of the System)** The review revealed that several DOE-SR courses are being utilized for SSO qualifications but the coursework is not included on the draft qualification card. **(OFI)DOE-SR qualification requirements should be included in the Qualification Card.**

Qualification records were reviewed. **(OFI) SSO courses currently being taken by SSO personnel were not reflected on the SSO qualification card.** These should included as required training.

Qualification records were reviewed for supervisors with responsibilities for SSO personnel. **(OFI) The STSM qualification card should be updated to incorporate**

SSO requirements. All SSO candidates are assigned TQP functional areas in addition to the SSO qualification card.

Management (MG)

The review performed under this functional area assessed actions being taken to ensure SSO supervisors effectively perform their responsibilities.

Interviews were conducted with supervisors to assess understanding of roles and responsibilities assigned to them in the plan and their implementation at SRSO. Supervisors have identified one candidate for the SSO position.

SRSO line management demonstrated an adequate understanding of the SSO function.

Interviews identified that SRSO management is fully aware of the challenges that are to be encountered as SRSO completes its implementation of the program:

- Management attention and follow through regarding SSO qualification and oversight activities is essential to the successful implementation of this program. Active involvement by line managers is a key element in ensuring SSO personnel understand expectations; provide feedback where process improvements may be necessary; and reinforces the importance placed upon this program.

The annual assessment plan identifies self-assessment requirements for safety, security and oversight. NNSA-SRSO SSO assessments will utilize specific lines of inquiry. **(NP) Utilization of specific lines of inquiry to assess VSS adequacy** will be an effective tool to ensure consistency and effectiveness of assessments. (OFI) **The SSO program self-assessment should be included and specifically identified in the schedule. (OFI) A plan to link the SSO performance assessment requirements to the NNSA annual assessment plan is needed. Currently, only VSS assessments are identified. (OFI) NNSA SRSO should document SSO roles and responsibilities and interaction with other SMEs, (FRs/AB, etc.) and the contractor.**

CONCLUSIONS and RECOMMENDATIONS

When fully implemented, the draft SSO qualification standard and associated draft self-study achievement standard will meet the requirements of DOE M 426.1-1A. Line managers and SSO personnel understand the program's objective and have recently initiated actions to implement the function for safety systems at SRSO. The program is in the initial stages of implementation and is immature. Several actions are needed to mature the program to support the requirement to implement the SSO function which meets or exceeds the requirements of DOE M 426.1-1A for SSO implementation by 9/30/05. Numerous opportunities for improvement include:

The NNSA/SRSO SSO Technical Qualification Standard and associated Self Study Achievement Standard are currently in draft form.

The FRAM currently identifies responsibilities for Systems Engineering Oversight for the VSS. It should be updated to incorporate responsibilities of the SSO program.

An implementing procedure identifying the process for the NNSA-SRSO technical qualification program is needed.

A position description has not yet been developed and performance expectations have not been documented in Individual Development Plans (IDPs)/Individual Performance Plans (IPPs) for their SSO personnel.

Personnel assigned SSO responsibilities have not been formally communicated to contractor management.

A staffing analysis should be conducted to validate staffing levels for implementation of the SSO program for existing systems and for the addition of Tritium Extraction Facility (TEF) systems.

The Qualifying Officials list is outdated and should be updated to include SSO requirements.

The qualification card should be updated to define clear and consistent expectations for safety significant and vital safety systems.

The qualification card should be updated to include elements of the Safety Management Program Plans.

A documented process for identifying and tracking completion of SSO requirements should be developed.

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The STSM qualification card should be updated to incorporate SSO requirements.

A plan to link the SSO performance assessment requirements to the NNSA annual assessment plan is needed. Currently, the plan only included VSS assessments.

NNSA-SRSO should document SSO roles and responsibilities and interaction with other SMEs, (FRs/AB, etc.) and the contractor.

The annual assessment plan identifies self-assessment requirements for safety, security and oversight. SSO program self-assessment should be included and specifically identified in the schedule.

Recommendation

To assist the coordination and completion of the implementation of the SSO program, NNSA-SRSO should consider the development of a project plan and include the following actions:

- Finalize Draft Qualification Standards
- Accomplishment and tracking of the SSO qualification progress
- FRAM update
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- Qualifying Official List update
- Documentation outlining SSO integration into office (FR interface, contractor interface)
- Development of a TQP implementing procedure

ATTACHMENT: Safety System Oversight (SSO) Program Implementation Assessment Criteria Review and Approach Documents (CRADs)

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Attachment A

**Criteria and Review Approach Documents
(CRADs)**

Safety System Oversight (SSO) Program Implementation Assessment Criteria and Review Approach Documents (CRADs)

Revision 0

PROGRAM (PGM)

OBJECTIVE

PGM.1 An effective SSO Program is established by the Field Element Manager to apply engineering expertise to maintain safety system configuration and to assess system condition and effectiveness of safety management program implementation.

Criteria

- PGM.1.1 The SSO Qualification Program is part of the Technical Qualification Program (DOE M 426.1-1A, Chapter III, Section 1, 2.b (1)).
- PGM.1.2 The SSO Program establishes appropriate training, qualification, and performance requirements for SSO personnel and the supervisors are held accountable for achieving them (DOE M 426.1-1A, Chapter III, Section 1, 2.b (2)).
- PGM.1.3 The safety systems and safety management programs included in the SSO Program align with those systems and programs identified in the applicable Documented Safety Analysis (DOE M 426.1-1A, Chapter III, Section 1, 4.c).
- PGM.1.4 Safety system oversight requirements are defined and implemented, for example, functions, responsibilities, and authorities of personnel assigned to perform safety system oversight and their interface/support of Facility Representatives are clearly defined, and SSO staffing needs are identified and there is a plan or process to ensure future staffing needs are met and maintained (DOE M 426.1-1A, Chapter III, Section 1, 2.b (3) & (4)).
- PGM.1.5 Affected DOE and contractor managers understand the SSO role and relationship to Facility Representatives and the contractor's cognizant System Engineers, and provide the necessary access and support (DOE M 426.1-1A, Chapter III, Section 1, 3.d).
- PGM.1.6 Qualifying Officials are assigned to sign site-specific Qualification Cards (DOE M 426.1-1A, Chapter III, Section 1, 2.b (6)).
- PGM.1.7 The SSO Program contains features to verify that SSO candidates possess the required level of knowledge and/or skills to perform assessments and investigations to confirm performance of safety systems in meeting established safety and mission requirements (DOE M 426.1-1A, Chapter III, Section 1, 2.b (5)).

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Approach

Record Review: Review documentation (e.g., site technical qualification program documents, SSO Program Plan, SSO Program procedures, qualification cards and/or standards, internal memorandums, Documented Safety Analyses, etc.) which establish the SSO Program and describe its implementation to determine that the program is complete and comprehensive.

Interviews: Interview management personnel with responsibilities for implementing and executing the SSO program to determine if they are familiar with the role of SSO personnel relative to the Facility Representatives and the contractor's cognizant system engineers, if they provide adequate resources for training, qualification, future staffing, and performance of SSO personnel, and if they appropriately qualified to perform their assigned role in the SSO program. Interview qualifying officials to determine if they are familiar with their role and responsibility, they are currently qualified, and they are performing their assigned role.

Field Observation: Evaluate any process used by or directed by the Field Element Manager to determine the effectiveness of SSO Program Performance.

TRAINING AND QUALIFICATION (TQ)

OBJECTIVE

TQ.1 SSO personnel and supervisors with responsibilities for SSO personnel are appropriately trained and qualified, or are in the process of achieving qualification.

Criteria

- TQ.1.1 Supervisors with responsibilities for SSO personnel maintain Senior Technical Safety Manager (STSM) qualification (DOE M 426.1-1A, Chapter III, Section 1, 2.c (1)).
- TQ.1.2 Site-specific qualification standards and cards have been developed and a documented process is implemented to assure that SSO candidates meet, at a minimum, the SSO knowledge, skills, and abilities specified in the *Federal Technical Capability Manual* DDOE 426.1-1A, Chapter III, Section 1, 5.a & 5.b)
- TQ.1.3 All SSO personnel have completed or are completing the General Technical Base Qualification Standard (DOE-STD-1146-2001) and one or more Functional Area Qualification Standard(s) in a technical area linked to their individual job descriptions (DOE M 426.1-1A, Chapter III, Section 1, 4.a).
- TQ.1.4 All SSO personnel have completed or are completing the site-specific qualification standard associated with assigned safety systems (DOE M 426.1-1A, Chapter III, Section 1, 4.a).
- TQ.1.5 SSO Supervisors have established methods to assign initial qualification dates, track progress toward qualification, and ensure retraining/requalification occurs as required for each SSO candidate in the qualification process (DOE M 426.1-1A, Chapter III, Section 1, 2.c (4) through (6)).

Approach

Record Review: Review qualification records to establish that supervisors and managers of SSO are qualified as an STSM and that SSO personnel are trained and qualified. Review qualification and requalification schedules, staffing plans, training plans, travel funding, etc. to determine that sufficient resources are provided for training, retraining, qualifying, and requalifying SSO personnel.

Interviews: Interview supervisors, training coordinators, SSO personnel, and budget personnel to establish that training and qualification plans and schedules are being executed as planned and that sufficient resources are provided to meet the schedules.

Field Observation: Observe activities associated with the qualification process, such as qualification boards, exams, walk throughs to determine that the training and qualification process is implemented and functioning effectively.

MANAGEMENT (MG)

OBJECTIVE

MG.1 SSO Supervisors effectively perform their SSO program responsibilities.

Criteria

- MG.1.1 Site-specific SSO qualification standards and cards are developed (DOE M 426.1-1A, Chapter III, Section 1, 2.c (2)).
- MG.1.2 Supervisors have identified and approved SSO candidate selection (DOE M 426.1-1A, Chapter III, Section 1, 2.c (3)).
- MG.1.3 Supervisors of SSO personnel have established SSO personnel qualification schedules and are tracking progress (DOE M 426.1-1A, Chapter III, Section 1, 2.c (4)).
- MG.1.4 Supervisors facilitate SSO qualification (e.g., ensure sufficient time and training are provided to complete qualification tasks) (DOE M 426.1-1A, Chapter III, Section 1, 2.c (5)).
- MG.1.5 Supervisors ensure SSO personnel are trained and qualified to perform assigned duties (DOE M 426.1-1A, Chapter III, Section 1, 2.c (6)).
- MG.1.6 SSO responsibilities are included and measured in Individual Performance Plans (DOE M 426.1-1A, Chapter III, Section 1, 2.c (7)).
- MG.1.7 Ensure SSO qualifications are maintained current by training and assignments planned in Individual Development Plans (DOE M 426.1-1A, Chapter III, Section 1, 2.c (8)).
- MG.1.8 SSO Supervisors periodically evaluate program effectiveness and implement corrective actions in a timely manner (DOE M 426.1-1A, Chapter III, Section 1, 2.c (9)).

Approach

Record Review: Review qualification cards, Individual Performance Plans, and other SSO program documents and procedures to establish that managers and supervisors are effectively performing their responsibilities as defined in the SSO program. Review other documentation used by supervisors to establish SSO program effectiveness and implementation of corrective actions.

Interviews: Interview supervisors and managers to establish that they are familiar with their assigned roles, they perform their assigned duties, monitor the effectiveness of the SSO program and ensure any identified corrective actions are implemented.

Field Observation: Observe any activities associated with SSO program effectiveness evaluations and/or corrective action implementation.

OVERSIGHT PERFORMANCE (OP)

OBJECTIVE

OP.1 Collectively, SSO personnel provide oversight of the Contractors' System Engineer Program.

Criteria

- OP.1.1 Oversight performed by SSO personnel establishes that the contractor System Engineer Program is effectively implemented with goals, objectives, and performance measures (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).
- OP.1.2 SSO personnel maintain communication with the contractor's cognizant System Engineer (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).
- OP.1.3 SSO personnel monitor performance of the contractor's cognizant System Engineer Program (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).
- OP.1.4 SSO personnel attend selected contractor meetings with Facility Representatives and contractor personnel responsible for system performance (e.g., cognizant System Engineers, design authorities, and program managers) (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).

Approach

Record Review: Review oversight documentation, such as SSO assessment reports, SSO walk throughs, correspondence, SSO activity records or logs, corrective action documents, etc. to establish that SSO personnel are overseeing implementation and execution of the contractor system engineer program. Review the contractor's system engineer program to determine whether there are any program weaknesses or deficiencies that have not been identified by SSO personnel.

Interviews: Interview SSO personnel, Facility Representatives, and contractor system engineers to establish the level of interface between SSO personnel and the contractor's cognizant system engineers.

Field Observation: Observe any oversight activities of the contractor's system engineer program performed by SSO personnel.

OBJECTIVE

OP.2 SSO personnel are knowledgeable and familiar with assigned safety systems and/or programs.

Criteria

- OP.2.1 A qualified SSO is, in fact, knowledgeable of the system status, performance, maintenance, operations, design, and vulnerabilities of their assigned systems or programs. This is evidenced by:
 - OP.2.1.1 SSO personnel regularly and routinely review periodic system health/status reports (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
 - OP.2.1.2 SSO personnel review test results, investigation reports, root cause analyses, etc (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
 - OP.2.1.3 SSO personnel interface with external organizations that can provide insights on performance (DOE M 426.1-1A, Chapter III, Section 1, 2.a (2)).
 - OP.2.1.4 SSO personnel perform assessments, periodic evaluations of equipment configuration and material condition and safety management program implementation (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).
 - OP.2.1.5 SSO personnel evaluate the effects of aging on system equipment and components, the adequacy of work control and change control processes, and consider the appropriateness of system maintenance and surveillance activities with respect to reliable performance of safety function(s) (DOE M 426.1-1A, Chapter III, Section 1, 2.a (3)).
 - OP.2.1.6 SSO personnel identify technical issues and participate actively in the resolution of the issues.
- OP.2.2 Safety systems and safety management programs have established goals, objectives, and performance measures
- OP.2.3 SSO personnel perform evaluations of contractor troubleshooting, investigations, root cause evaluations, and selection and implementation of corrective actions, in conjunction with Facility Representatives (DOE M 426.1-1A, Chapter III, Section 1, 2.a (4)).
- OP.2.4 SSO personnel provide support to other Federal employees, as appropriate. (DOE M 426.1-1A, Chapter III, Section 1, 2.a (5))
- OP.2.5 SSO personnel assess contractor compliance with relevant DOE regulations, industry standards, contract requirements, safety basis requirements, and other system requirements (DOE M 426.1-1A, Chapter III, Section 1, 2.a (6)).

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- OP.2.6 SSO personnel confirm configuration documentation, procedures, and other sources of controlling information are current and accurate (DOE M 426.1-1A, Chapter III, Section 1, 2.a (7)).
- OP.2.7 SSO personnel report potential or emergent hazards immediately to DOE line management and Facility Representatives (DOE M 426.1-1A, Chapter III, Section 1, 2.a (8)).
- OP.2.8 SSO personnel stop tasks, if required, to prevent imminent impact to the health and safety of workers and the public, to protect the environment, or to protect the facility and equipment and immediately notify the on-duty or on-call Facility Representative (DOE M 426.1-1A, Chapter III, Section 1, 2.a (8)).
- OP.2.9 SSO personnel serve, when assigned, as qualifying officials in the development or revision of Functional Area Qualification Standards, mentor assigned backups, and qualify other candidates to the Functional Area Qualifications Standards needed to achieve Safety System oversight qualification (DOE M 426.1-1A, Chapter III, Section 1, 2.a (9)).
- OP.2.10 SSO personnel maintain cognizance of the appropriate funding and resources to maintain and improve safety systems (DOE M 426.1-1A, Chapter III, Section 1, 2.a (10)).
- OP.2.11 Methods have been established for SSO personnel to routinely communicate system/program performance information and issues with STSMs and the Field Office Manager (DOE M 426.1-1A, Chapter III, Section 1, 2.a (1)).

Approach

Record Review: Review oversight documentation, such as SSO assessment reports, SSO walk throughs, correspondence, SSO activity records or logs, corrective action documents, etc. to establish that SSO personnel are performing required oversight. Review contract requirements and their flow down through the contract to the safety systems and safety management programs to establish the effectiveness of SSO personnel oversight that the contractor complies with all requirements relative to safety systems and programs. Review a sample of the safety system health reports, safety system test reports, safety system investigation reports, safety system root cause analyses, etc. to determine the effectiveness of SSO personnel knowledge and familiarity with this information.

Interviews: Interview SSO personnel to determine their knowledge of and familiarity with assigned safety systems and safety management programs, and the reports that the contractor may generate in relation to the systems and programs.

Field Observation: Observe SSO personnel walk downs and other activities in the field to establish the level of SSO personnel knowledge and familiarity of safety systems.