

CONTROL FORM FOR DOE/ORO DIRECTIVE

PART A (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):

1. DIRECTIVE NUMBER, TITLE, AND DATE:

ORO O 420, CHAPTER XV, CHANGE 1, SAFETY SYSTEM OVERSIGHT PROGRAM, dated 07/30/2007

2. PURPOSE OF TRANSMITTAL: ___ New Directive X Revised Directive ___ Revised Control Form

3. DOES THIS DIRECTIVE CANCEL OR EXTEND ANY OTHER DIRECTIVES? X Yes ___ No
If "Yes," list what action (cancel or extend) and list the Directive(s) number(s), title(s), and date(s):

This Directive cancels and replaces ORO O 420, Chapter XV, SAFETY SYSTEM OVERSIGHT PROGRAM, dated 07/19/2005.

The attached Directive is forwarded for review and action. Complete Part B and forward a completed hard copy of this form to ORO DMG, AD-440, by **08/13/2007**.

PART B (To be completed by the DIVISION OF PRIMARY INTEREST [DPI]):

COMPLETE FOR DOE DIRECTIVES ONLY:

4. SUPPLEMENTAL ORO DIRECTIVE REQUIRED?

Is a new or revised supplemental ORO Directive required? ___ Yes ___ No

If "Yes," target date for submission of supplemental ORO Directive is _____.

COMPLETE FOR BOTH DOE AND ORO DIRECTIVES:

5. CONTRACTOR APPLICABILITY.

Does this Directive affect the work performed by ORO Contractors? ___ Yes X No

If "Yes," whom? ___ Bechtel Jacobs Company LLC ___ ORAU

___ UT-Battelle, LLC ___ ISOTEK (Bldg. 3019, ORNL)

___ Foster Wheeler (FWENC)

___ Other Contractors (list by name)

6. SUBJECT MATTER EXPERT: Tyrone Harris SE-32
Name Organization

Original Signed By
7. APPROVED BY: David Allen, Dir. Environmental & Quality Mgmt. Div., SE-32 08/01/2007
Signature Organization Date

PART C (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):

APPROVED FOR DISTRIBUTION IN ACCORDANCE WITH OFFICIAL DIRECTIVE DISTRIBUTION LIST:

Original Signed By
Wayne H. Albaugh 08/01/2007
DMG Team Leader, AD-440 Date

INSTRUCTIONS TO ADDRESSEES: THIS FORM IS TO BE FILED WITH THE DIRECTIVE AND RETAINED. (Revised 02/10/2006)

U.S. Department of Energy

Oak Ridge Office

ORO O 420
Chapter XV
Change 1

Date: 07/30/2007

SUBJECT: SAFETY SYSTEM OVERSIGHT PROGRAM

1. **PURPOSE.** This Chapter correlates to DOE M 426.1-1A, FEDERAL TECHNICAL CAPABILITY MANUAL, dated May 18, 2004, Chapter III, Section 1, "*Safety System Oversight*," which addresses Safety System Oversight (SSO) by assigning responsibility and accountability and providing administrative and/or contractual guidance to Oak Ridge Office (ORO). This document does not change any requirements contained in any Department of Energy (DOE) Directive. Therefore, if any conflicts arise between this ORO Directive and a DOE Directive, the requirements contained in the DOE Directive shall take precedence.
2. **CANCELLATION.** This Chapter cancels and replaces ORO O 420, Chapter XV, SAFETY SYSTEM OVERSIGHT PROGRAM, dated July 19, 2005.
3. **APPLICABILITY.** The provisions of this Chapter apply to ORO Principal Staff. The requirements of the SSO Program are applicable to all ORO organizations that have responsibilities for active safety systems in all DOE Hazard Category 1, 2, or 3 defense nuclear facilities.
4. **RESPONSIBILITIES.** ORO has responsibility for oversight of nuclear facilities that rely on safety systems credited in safety basis documents developed in accordance with Title 10, Code of Federal Regulations, Part 830, Subpart B, "*Safety Basis Requirements*."
 - a. **Manager, ORO.**
 - (1) Ensures that the ORO SSO Program is established in accordance with requirements of DOE M 426.1-1A. The line management SSO Programs are components of the overall ORO SSO Program.
 - (2) Ensures that the performance measures are established and monitored and that the ORO SSO Program is periodically assessed to provide timely feedback for improvement.
 - b. **Assistant Managers Responsible for Defense Nuclear Facilities.**
 - (1) Ensures that the SSO staffing and coverage meet the requirements to adequately oversee safety systems and the contractor's cognizant system engineer program.
 - (2) Ensures that a current list of safety systems is maintained.
 - (3) Assists in the periodic assessment of line management SSO Programs and in the development of performance measures.
 - (4) Ensures that all management system documents accurately reflect the SSO Program requirements.

c. Supervisors of Safety System Oversight Personnel.

- (1) Determines the number of SSO personnel to be assigned to systems identified by line management.
- (2) Ensures that SSO program responsibilities are reflected in position descriptions and Individual Performance Plans.
- (3) Ensures SSO activities are priority of SSO Personnel.
- (4) Provides data input to SSO Program performance measures.

NOTE: In situations where the line organization is relying on the Assistant Manager for Environment, Safety, and Health (AMESH) personnel to support SSO responsibilities, the following requirements found in Reference 6e for SSOs are shared with the line organizations:

- Ensuring that SSO personnel are identified and trained
- Establishing qualification schedules
- Facilitating SSO qualification
- Ensuring Individual Performance Plans contains SSO responsibilities
- Ensuring SSO qualifications are maintained current
- Ensuring SSO Supervisors maintain Senior Technical Safety Manager (STSM) qualification

d. Assistant Manager for Environment, Safety, and Health.

- (1) Serves as the ORO SSO Program Sponsor or “owner.”
- (2) Appoints a technical staff member from the AMESH organization to serve as the SSO Program Manager.
- (3) Ensures that required ORO-Wide SSO Program documentation is prepared and maintained current.
- (4) Establishes communications and shares of lessons learned among SSO personnel.
- (5) Provides support to line Assistant Managers in identifying, training, and qualifying SSO personnel, as requested.
- (6) Ensures that oversight of the line management SSO Program is provided, including tracking and trending ORO SSO Program performance measures and conducting periodic performance assessments.
- (7) Coordinates with ORO senior management, as necessary, on cross-cutting ORO SSO program issues.
- (8) Ensures that all management system documents accurately reflect the SSO Program requirements.

NOTE: In situations where the line organization is relying on AMESH personnel to support SSO responsibilities, the following requirements found in Reference 6e for SSOs are shared with the line organization:

- Ensuring that SSO personnel are identified and trained
- Establishing qualification schedules
- Facilitating SSO qualification
- Ensuring individual Performance Plans contains SSO responsibilities
- Ensuring SSO qualifications are maintained current
- Ensuring SSO Supervisors maintain STSM qualification

e. ORO SSO Program Manager.

- (1) Supports the ORO SSO Program Sponsor in overseeing implementation of program.
- (2) Oversees ORO-wide SSO documentation to ensure that it is maintained current.
- (3) Interfaces with and supports line management to ensure SSO Program implementation.

f. SSO Personnel.

- (1) Provide oversight of safety systems and monitor the performance and effectiveness of the contractor's implementation of its system engineer program in accordance with the requirements of DOE M 426.1-1A.
- (2) Attend contractor meetings with DOE Facility Representatives and contractor personnel responsible for system performance (e.g., cognizant system engineers and design authorities).
- (3) Interface with external organizations that provide insights on SSO Program performance.
- (4) Coordinate with DOE Facility Representatives to ensure the operability of specific safety systems and report operability concerns to line management.
- (5) Perform assessments and periodic evaluations of equipment configuration, material condition, design status, and technical adequacy and enter the assessment results into the Oak Ridge Issues, Open Items, and Nonconformances System (currently ORION2).
- (6) Perform evaluations of the contractor's troubleshooting activities, investigations, root cause evaluations, and selection and implementation of corrective actions.
- (7) Serve as a subject matter expert in the development or revision of ORO functional area qualification standards, mentor assigned backups, and assist other SSO candidates to acquire the knowledge and experience so as to satisfy the functional area and site-specific qualification standards equivalent to those required to attain SSO qualification.

g. Human Capital Assessment Group.

- (1) Maintains SSO personnel training and qualification records.

- (2) Provides guidance for development of on-the-job training and self-study modules.
- (3) Conducts SSO training needs analyses to assist the Assistant Managers in identifying needed developmental activities for SSO personnel qualification.
- (4) Supports the ORO line organizations in the development and maintenance of SSO qualification standards and learning objectives. Identifies and procures learning activities to support the SSO personnel qualifications, as requested.
- (5) Maintains a Training Center that includes printed, audiovisual, and computer-based training materials, and that provide support to achieving SSO personnel qualification.

5. REQUIREMENTS AND PROCEDURES.

- a. The ORO Manager, Assistant Managers, and SSO supervisors initiate activities to ensure that sufficient number of competent DOE staff are assigned as SSO personnel to oversee the contractor's management of safety systems at ORO defense nuclear facilities in accordance with the requirements of DOE M 426.1-1A.
- b. The SSO training and qualification program is key part of the ORO Technical Qualification Program and is implemented as an additional level of technical qualification. The SSO processes, including training and qualification, will be documented in the line management procedures.
- c. The results of all SSO-related assessment activities will be documented in ORION.
- d. ORO management will periodically (e.g. every three years) assess the implementation of the line management SSO programs and provide the results to the appropriate organizations.
- e. Where applicable, the cognizant Line Assistant Manager or designee may approve a documented statement of interim qualification for an SSO candidate that addresses the following:
 - Criteria used as the basis for the interim qualification
 - System(s) that the SSO candidate will be responsible for during the interim qualification period
 - Expiration date of the interim qualification (not to exceed 24 months)

6. REFERENCES.

- a. Title 10, Code of Federal Regulations, Part 830, Subpart B, "*Safety Basis Requirements.*
- b. DOE G 450.4-1B, INTEGRATED SAFETY MANAGEMENT SYSTEM GUIDE, VOLUME 1 AND VOLUME 2, FOR USE WITH SAFETY MANAGEMENT SYSTEM POLICIES (DOE P 450.4, DOE P 450.5, AND DOE P 450.6); THE FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES MANUAL; AND THE DOE ACQUISITION REGULATION, dated March 1, 2001.

- c. DOE P 426.1, FEDERAL TECHNICAL CAPABILITY POLICY FOR DEFENSE NUCLEAR FACILITIES, dated December 10, 1998.
- d. DOE O 420.1B, FACILITY SAFETY, dated December 22, 2005.
- e. DOE O 414.1C, QUALITY ASSURANCE, dated June 17, 2005.
- f. DOE O 360.1B, FEDERAL EMPLOYEE TRAINING, dated October 11, 2001.
- g. DOE M 360.1-1B, FEDERAL EMPLOYEE TRAINING MANUAL, dated October 11, 2001.
- h. DOE O 226.1, IMPLEMENTATION OF DEPARTMENT OF ENERGY OVERSIGHT POLICY, September 15, 2005.
- i. DOE P 226.1A, DEPARTMENT OF ENERGY OVERSIGHT POLICY, dated May 25, 2007.
- j. DOE O 231.1A, Change 1, ENVIRONMENT, SAFETY, AND HEALTH REPORTING, dated June 3, 2004.
- k. DOE M 231.1-2, OCCURANCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION, dated August 19, 2003.
- l. *“Technical Qualification Program Manual (A Desktop Reference for Supervisors and Participants)”*, Revision 1, dated December 2002 (issued by ORO).

7. DEFINITIONS.

- a. **SAFETY SYSTEM OVERSIGHT PERSONNEL.** Individuals assigned responsibility for contractor oversight based on a specific system or group of systems. This oversight can be applied to various facilities, projects, and/or operations. With respect to the SSO staff member’s expertise, the individual has technical understanding of the system requirements, design, operation, testing, and maintenance and knowledge of relevant codes, standards, procedures, and acceptance criteria.
- b. **ACTIVE SAFETY SYSTEMS.** Safety systems credited in safety basis documents as controls that perform important roles to protect the health and safety of the public and the workers and protect the environment, including safety-class systems, safety-significant systems, and other systems that, in the judgment of line management, perform an important defense-in-depth safety function.

8. CONTRACTOR REQUIREMENTS DOCUMENT. None.

9. ATTACHMENT. None.