

CONDUCT OF OPERATIONS (CO)

OBJECTIVE

TA-55 SST Facility

NNSA ORR Implementation Plan

1 1

CO.1 The formality and discipline of operations is adequate to conduct work safely and programs are in place to maintain this formality and discipline. (*Core Requirement 13*)

Criteria

1. Programmatic elements of conduct of operations are in place for TA-55 SST operations.
2. The TA-55 SST operations personnel adequately demonstrate the principles of conduct of operations requirements during the shift performance period.

Approach

Record Reviews: Review procedures and other facility documents to verify compliance with conduct of operations principles.

Interviews: Interview a sampling of the TA-55 SST associated personnel to validate their understanding of the conduct of operations principles (e.g., procedure usage, communications, response to alarms, turnover, independent verification, and timely orders) in the performance of their duties.

Performance Demonstrations: Observe simulations/evolutions to validate if the facility is effectively implementing the conduct of operations requirements (e.g., procedure usage, communications, response to alarms, independent verification, shift routines and operating practices). Attend pre-job briefings and observe operator rounds, procedure use, communications, response to alarms, and control of system status activities. Observe training drill and response to adverse conditions to validate operations personnel are able to properly respond to casualty situations.

OBJECTIVE

CO.2 Sufficient numbers of qualified personnel are available to conduct and support operations. Adequate facilities and equipment are available to ensure operational support services (such support services include operations, hoisting and rigging, training, maintenance, waste management, environmental protection, industrial safety and hygiene, radiological protection and health physics, emergency preparedness, fire protection, quality assurance, criticality safety, and engineering) The level of knowledge of managers, operations personnel, and support personnel is adequate based on reviews of examinations and examination results and selected interviews of personnel. (*Core Requirements 4, 6, and 13*)

Criteria

- Minimum staffing requirements have been established for operations and support personnel, including supervisors and managers. These staffing levels are met and are consistent with the safety basis requirements and assumptions.
- 2. The level of operator knowledge is adequate to operate safely. Operators demonstrate a working knowledge of the facility systems and components related to safety. Operators demonstrate the ability to carry out normal, abnormal, and emergency procedures.

- 3. Operations, management, and technical support personnel retain a practical and adequate understanding of facility systems, safety basis documents, the TSR, and procedures.
- 4. Managers, operations personnel, and support personnel demonstrate competence commensurate with responsibility through walkthroughs, interviews, and performance demonstration.

Approach

Record Reviews: Review the TSRs for staffing requirements. Compare with personnel records (list of qualified personnel) to assess the ability of the facility to field the required personnel. Review the TA-55 SST staffing plans and ensure there are adequate numbers of qualified personnel to support operations.

Interviews: Interview operations managers and shift supervisors to ensure they understand the minimum staffing requirements for all phases of facility operations. Interview support personnel to determine if sufficient numbers of qualified personnel are available to support TA-55 SST normal, upset, and emergency conditions.

Performance Demonstrations: Assess staffing levels and adequacy of support personnel while observing drills and/or routine evolutions to determine if they are adequate and satisfy the administrative and safety basis requirements.

OBJECTIVE

CO.3 Adequate and correct procedures and control limits (including safety limits as applicable) are in place for operating the process systems and utility systems that include revisions for modifications which have been made to the facility. Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents and unplanned releases and exposures. (*Core Requirement 10 and 13*)

Criteria

- Procedures implement applicable TA-55 SST safety requirements and the associated limiting conditions for operation.
- The parameters indicating compliance with the TA-55 SST safety requirements can be
 - measured or physically verified.
- Confirmation of continued compliance with safety requirements, including clearly defined surveillance intervals and periodic self-assessments, is required by TA-55 SST procedures.
- The TA-55 SST operations, maintenance, and surveillance procedures meet or exceed the requirements of the guidance provided in DOE Order 5480.19, *Conduct of Operations Requirements for DOE Facilities*.
- The TA-55 SST procedures are available to the operators to enable them to monitor and control operation under normal, abnormal, and emergency conditions
- Procedures were developed or revised based upon the latest modifications to the facility.

Approach

Record Reviews: Select several safety requirements and determine if associated operating, surveillance, and maintenance procedures implement the limiting conditions for operation.

Review procedures to assess whether contingencies (spray leaks, spills, etc.) are adequately captured.

Verify that the technical performance data in procedures (such as instrument set-points, relief valve setpoints, design pressures or temperatures, and points for operator action) are consistent with the authorization basis assumptions and safety analysis results.

Interview operators and supervisors to assess their understanding of the site procedure compliance policy.

Interview operators and supervisors to assess their understanding of the new TA-55 SST procedures.

Performance Demonstrations: While observing evolutions and drill response, determine if the facility procedures are adequate in content, level of detail, and acceptance criteria, and if they properly implement safety requirements. Verify procedures are adequate to support safe operations.

Observe performance of a surveillance and operator round to determine if the safety system parameters used to verify compliance with safety requirements are accurately verified. Verify procedures are consistent with and satisfy administrative and safety basis requirements.

OBJECTIVE

CO.4 The Integrated Work Management Process piece of ISM has been implemented to ensure work is conducted safely, securely and compliantly. (*Core Requirement 1, 4, 10, and 13*)

Criteria

1. Management emphasizes the importance of integrating safety, security, and compliance into the performance of work.
2. Perform Work within Controls – Management ensures that work is safely performed and managed in accordance with requirements and safety management performance expectations. All operations are authorized at a level commensurate with the hazards and established work authorization process. Line Management executes defined requirements such that employees are protected from adverse consequences.
3. Define the Scope of Work – Work control systems and procedures that address work definition are developed for all types of work activities and are implemented effectively. These systems and procedures ensure that the scope of all work is clearly defined and

bounded such that the hazards to workers, the public, and the environment can be identified and controlled.

4. Analyze Hazards – Work systems and procedures are developed and implemented effectively and ensure that hazards for all work are identified and appropriately analyzed, based on the significance of the hazard. Prior to the initiation of work, line management identifies, analyzes, and categorizes the hazards associated with the work activity so that the appropriate administrative and engineering controls can be put in place to prevent or mitigate those hazards

Approach

Record Reviews: Review a sampling of work, IWDs, procedures and packages to verify compliance with associated LIRs.

Personnel Interviews: Determine if facility management has communicated to personnel the expectation that they are to rigorously adhere to procedures and perform steps as written or STOP work and have the procedure revised in accordance with applicable requirements if they are in error.

How are appropriate workers, supervisors, subject matter experts (SMEs), the PIC, and the facility management point of contact (FM POC) directly involved in identifying tasks/steps and associated hazards and controls?

- Are workers and managers roles & responsibilities for IWM clearly defined in division/facility procedures.

Performance Demonstrations: Observe implementation during observed evolutions.