

SAFETY ENVELOPE VERIFICATION (SE)

Objective SE.1 – Facility safety documentation is in place that describes the “safety envelope” of the facility and is fully implemented. The safety documentation should characterize the hazards and risks associated with the facility and identify preventive and mitigating measures (i.e., systems, procedures, administrative controls, etc.) that protect workers and the public from those hazards and risks. SSCs are defined, and a system to maintain control over their design and modification is established. (Core Requirement 7)

Criteria

- The Building 9212 BIO and OSR have been revised, approved, issued, and implemented in accordance with Y74-802, *Safety Basis Documents for Nuclear, PSM/RMP, and Chemically Hazardous Facilities*.
- The physical configuration of the OCF SSCs is consistent with the BIO and the OSR, the designated equipment and systems are present as described, and the requirements can be accomplished for the OCF operation.
- The USQD or USQD screens have been completed as required in accordance with the requirements in Y74-809, *Unreviewed Safety Question Determinations*. Applicable USQDs and USQD screens are listed in the readiness evidence files.
- The formal agreements outside of the BIO and the OSRs and the permits that establish the boundary for operating this facility are to be reviewed and their implementation verified.
- The Building 9212 fire hazard analysis has been revised, approved, and implemented in accordance with Y79-001, *Y-12 Fire Protection Program Manual*, to include OCF operations. The *Building 9212 Pre-Fire Plan* has been revised to be current with OCF operations, the Fire Department emergency response shifts have been trained on this revision, and the associated Fire Department Pre- Fire Plan training records have been placed in the evidence readiness files.
- Verify that safety SSCs are defined and the systems that maintain control over their design and modification are established.

Approach

Record Review: Review the BIO, OSR, CSRs, CSEs, SERs and other safety basis documentation to verify implementation and consistency between the facility documents. Assess whether the safety basis adequately incorporates and includes appropriate hazards and risks associated with the operations.

Interviews: Perform any interviews necessary to resolve issues arising from the record review.

Shift Performance: Walk down safety-related systems to assess operability and condition. Systems selected for these observations should be those frequently relied upon in the safety basis documentation as mitigators for events or accidents. Verify that there are no uncontrolled modifications to safety systems. This walkdown should evaluate the accuracy of drawings and other documentation for plant operation and maintenance.

Objective SE.2 – The facility systems and procedures, as affected by facility modifications, are consistent with the description of the facility, procedures, and accident analysis included in the safety basis. (Core Requirement 9)

Criteria

- The procedures required for performance of OCF operations are consistent with the Documented Safety Analysis (DSA) descriptions and accurately reflect the requirements for equipment use and operation. The applicable procedures are identified in the evidence files.
- The USQ/USQD process is appropriately applied to ensure agreement between the facility/systems, procedures and the safety basis (i.e., the BIO and the OSR).

- Confirmation of continued compliance with safety requirements, including clearly defined surveillance intervals and periodic self-assessments, is required by procedures.
- Adequate surveillance test procedures and acceptance criteria have been established to support safe operation and are consistent with the approved operating basis for the facility.
- Completed surveillance and tests are reviewed, and follow-up actions are documented.

Approach

Record Review: Review surveillance test tracking systems to assess the mechanism used for scheduling, performing, reporting results, and dispositioning test deficiencies for mode compliance. Verify that the surveillance test database has been revised to include applicable safety equipment. Review the safety functions for mode compliance to determine if each safety requirement has a corresponding surveillance test. Review surveillance tests to determine if acceptance criteria are established and being met during the performance of periodic mode checks. Verify that surveillance procedures are technically correct and implement requirements of the OSR and the safety basis documents. Review the list of outstanding safety system deficiencies identified through the corrective maintenance program, preventive maintenance program, surveillance test program, or other reporting process to assess the condition of facility systems to support safe operations.

Interviews: Interview personnel associated with the surveillance tracking and mode compliance program to assess their understanding of program requirements and responsibilities.

Shift Performance: Observe the performance of a facility mode change, and walk down one or more defense-in-depth systems to assess operability and condition.

Objective SE.3 – Adequate and correct procedures and Limiting Conditions for Operation (LCOs) are in place for operating the process systems, and these include revisions for the modifications that have been made to the facility. (Core Requirement 10)

Criteria

- The procedures reflect the current configuration of the equipment, systems, and processes required for OCF operation. Verify that LCOs have been established, documented, implemented, and controlled for OCF processes and equipment. The applicable procedures are identified in the evidence files.
- The OCF procedures are correct and incorporate the LCOs. The correctness of the procedures is evaluated through observations of operations, demonstrations, or drills. To the extent allowable with appropriate safety controls in place, execution of the operating procedures and abnormal operating procedures have been practiced and the accuracy of the procedures demonstrated. The technical procedures comply with the requirements of Y15-232, *Technical Procedure Process*, the administrative procedures comply with the requirements defined in Y15-235, *Administrative Management Requirements Process Manual*. The applicable procedures are identified in the readiness evidence files.
- Automated Job Hazard Analyses for OCF maintenance activities have been performed in accordance with Y73-045, *Automated Job Hazard Analysis*.
- Material Safety Data Sheets are accurate and provided for OCF operations.
- Inventories of chemically hazardous materials are in compliance and are contained in the facility Hazardous Material Inventory System database.

Approach

Record Review: Select at least three LCOs and associated surveillance requirements and determine if the associated operating and maintenance procedures implement the requirements. Select at least three OSR administrative controls and verify implementation and compliance.

Interviews: Interview the shift managers and support personnel to verify their understanding of OSR application and use.

Shift Performance: Observe the performance of surveillance test and operator rounds to determine if the safety system parameters used to verify compliance with safety requirements can be accurately verified. While observing evolutions and drill response, assess activities to ensure compliance with the safety requirements.