FACILITY SAFETY (FS)

OBJECTIVE

FS.1 – (Core Requirement 7) Facility safety documentation in support of SN process operations,is in place and has been implemented that describes the safety envelope of the facility. The, safety documentation should characterize the hazards/risks associated with the facility and should, identify preventive and mitigating measures (e.g., systems, procedures, and administrative, controls) that protect workers and the public from those hazards/risks. (Old Core Requirement 4)

Criteria

1. A DSA has been prepared by FWENC, approved by DOE, and implemented to reflect the SN process operations in the WPF. (10 CFR 830.200, DOE-STD-3009-94)
2. A configuration control program is in place and functioning such that the DSA is consistent with the physical facility configuration, the equipment and systems are present as described and credited, and the requirements can be accomplished. (10 CFR 830.200, DOE O 420.1A)

3. The Unreviewed Safety Question Determination (USQD) process is approved by DOE and inplace. (10 CFR 830.200)
4. The characteristics of the safety management programs (including maintenance, fire protection, safety, health, and industrial hygiene) necessary to ensure safe operation of facility defined in the DSA are implemented. (10 CFR 830.204(b)(5))

Approach
Record Review: Review the WPF DSA, TSR, Safety Evaluation Report (SER), and other safetybasis documents to assess whether the safety basis adequately includes the appropriate hazards/risks associated with SN process operations. Ensure that the DSA has been approved and implemented to reflect the operation of the SN process per 10 CFR 830. Ensure that the DSA and TSR requirements are implemented to consistently and properly identify the hazards, necessary controls, and safety systems to prevent or mitigate hazards. Verify that any conditions of approval identified in the SER have been appropriately addressed. Review documentation to confirm that the DSA and TSR will be subjected to an annual review/revision process. Review the configuration control program that is in place to ensure the DSA is maintained consistent with the equipment and systems in the facility. Spot-check some of the facility equipment and systems to be sure that they are consistent with the description of the physical facility configuration as described in the DSA. Review the approved USQD procedure and check to see that it is implemented in the facility. Sample any completed USQDs to verify that they are being processed according to the approved procedure. Review the DSA to understand the characteristics of the safety management programs (such as the maintenance program and fire protection program) that are implemented to provide administrative controls in support of other engineered controls. Check to see that the safety management programs included in the DSA are, in fact, implemented as described.

Interviews: Interview operators to determine their understanding of DSA requirements implementation. Interview personnel involved in the USQD process to determine their understanding and implementation of the process. Interview the maintenance manager to see if the maintenance program is implemented as described in the controlling documents.
Observations: Observe an operation to see how the DSA requirements are implemented in operating procedures. Observe a maintenance activity to evaluate the effectiveness of the maintenance program implementation.

OBJECTIVE
FS.2 – (Core Requirement 8) A program is in place to confirm and periodically reconfirm the condition and operability of safety SSCs. This includes examinations of records of tests and calibration of these systems. The material condition of all safety, process, and utility systems will support the safe conduct of work. (Old Core requirement 5)

Criteria
1. A surveillance and maintenance program is in place for safety, process, and utility systems.
2. Tests and calibration of instruments are properly implemented and documented. (10 CFR 830, Subpart A, Criteria 5 and 8)
3. Completed surveillances and tests are verified and follow-up actions are documented. (10 CFR 830, Subpart A; DOE O 5480.19, Ch. 1 and II)
4. Software associated with SN process operations has been developed, documented, and controlled in accordance with the QA Project Plan. (10 CFR 830, Subpart A)

Approach
Record Review: Review the SN process operations safety requirements and controls and determine whether the associated operating, surveillance, and maintenance procedures adequately implement the TSR controls and the SER conditions for approval. Verify that the surveillance records of the Process Building Confinement Ventilation System and at least one other safety related system associated with the SN process areas are current. Review instrument test and calibration records. Ensure that the software associated with the SN process has been developed, documented, and controlled in accordance with the QA Project Plan. Review a 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. Ensure the process to maintain outstanding deficiencies is adequate.
Interviews: Interview personnel assigned to conduct authorization basis-related surveillance or maintenance activities, and evaluate their understanding of the impact their activities have on the authorization basis and facility/system operability.
Observations: Observe completion of a surveillance activity for implementation of a TSR requirement(s). Observe routine checks to ensure that safety systems are verified to be in compliance with safety requirements. Walk down one safety system with the assigned system engineer to assess operability and condition.

OBJECTIVE

FS.3 – (Core Requirement 10) Adequate safety limits are in place for operating the process systems and utility systems, and the limits are consistent with the as-built systems in the facility. (Old Core Requirements 1 and 18a)

Criteria

1. The TSR and/or operation limits are appropriately implemented for system operation in order to protect the public, the workers, and the environment from the safety and health hazards posed by the facility. (10 CFR 830.200)
2. The parameters indicating compliance with the safety requirements can be measured or physically verified. (10 CFR 830.200)
3. Safety limits and operational controls reflect the as-built systems in the facility. (10 CFR 830.200)

Approach

Record Review: Select TSR controls relevant to SN process operations and determine if the associated operating and maintenance procedures implement the requirements.
Review the TSR to ensure that operations controls are properly identified.
Review the results of the contractor's ORR to check their verification of the as-built systems. Sample some of the equipment or systems to verify that the controls reflected in the DSA are consistent with the actual hardware configuration in the facility.
Interviews: Interview personnel assigned to conduct authorization basis-related surveillance and maintenance activities and determine how the safety requirement parameters are measured and periodically verified.
Observations: Observe the performance of a surveillance and operator rounds to determine if the safety system parameters used to verify compliance with safety requirements are being accurately verified. While observing evolutions and drill response, assess the activities or programs in place to ensure compliance with safety requirements.

OBJECTIVE

FS.4 – (Core Requirements 7 and 9) Safety SSCs are defined, and a system to maintain control over their design and modification is implemented. The SN process operations systems, as built, are consistent with the facility description and accident analysis included in the safety basis. (Old Core Requirements 4 and 15)

Criteria

1. An adequate system engineering process has been implemented to ensure that documentation for safety SSCs to support SN process operations exists and is kept current. The documentation is available to management, operators, and support personnel as necessary. (10 CFR 830, Subpart A, Criterion 4; DOE O 5480.19 Ch. 2, Section VIII)
2. Drawings and documentation relied on for operations and maintenance activities are consistent with the existing configuration of the WPF. (10 CFR 830, Subpart A, Criterion 4)
3. The SN process operations systems are consistent with the assumptions and descriptions in the DSA. (10 CFR 830.200)
4. A system engineer is assigned to maintain control over the design and modification of safety SSCs. (10 CFR 830, Subpart A, Criterion 6)

5. The SN process operations systems are constructed per specifications consistent with the facility description and accident analysis included in the safety basis.

Approach

Record Review: Review safety SSC documents and drawings to be sure that they are current and available to managers, operators, and support personnel. Review system and equipment documentation to ensure that any modifications conducted on the SN process operations equipment since construction and installation have been accomplished consistent with the FWENC equipment configuration management process. Review the WPF DSA and TSR to ensure they are consistent with the physical facility configuration. Spot-check some of the facility equipment and systems to ensure that they are constructed per specifications consistent with the facility description and accident analysis included in the safety basis. Determine if the equipment and systems as described are part of the technical baselines for SN processing. Determine whether appropriate process descriptions exist and that these descriptions are under configuration control. Determine whether any in-progress modifications essential to permit operation of the SN process exist. Review the Master Equipment Lists of the SN process systems to ensure the equipment is properly graded consistent with the authorization basis and the FWENC QA Program. Ensure that utility system drawings have been updated, and the defined boundaries between the SN process systems and the utility systems are correctly identified. Review dispositioned Unreviewed Safety Questions (USQs)/USQDs for design changes, special procedures and tests, and other proposed changes. Determine the status of all ongoing USQs, and evaluate their implication on operations. Review records for temporary modifications, and verify that the required actions are implemented.

Interviews: Interview the system engineer(s) assigned to the safety SSCs to determine how control over the design and modifications of the systems is maintained. Interview management, operations, and support personnel responsible for configuration management for SN process operations to determine if they are familiar with their roles, responsibilities, and interfaces with the operations organization.

Observations: Perform a system walkdown with the system engineer to determine whether there are uncontrolled modifications to safety systems supporting SN process operations. This walkdown should evaluate the accuracy of drawings and other documentation for plant operation and maintenance. At least one recently completed modification or temporary modification to an equipment or system should be observed and the changes verified, including changes to the operating procedures, if applicable.