

OPERATIONS (OP)

OBJECTIVE

OP.1 – (Core Requirements 4 and 6) Sufficient numbers of qualified personnel are available to conduct and support operations. Adequate facilities and equipment are available to ensure operational support services are adequate for operations. 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. (Old Core Requirements 3, 8, 13, and 19)

Criteria

1. Minimum staffing requirements for safe operations have been established for operations personnel, supervisors, and managers. These staffing levels are met and are consistent with the safety basis requirements and assumptions. (DOE O 5480.19; WPF DSA)
2. All ES&H matrix support functions are identified for system operations. Adequate qualified support personnel are available to support safe operations. (10 CFR 830, Subpart A, Criterion 2)
3. 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. (DOE O 5480.19, Ch. XIII)
4. Operations, management, and technical personnel retain a practical and adequate understanding of facility systems, safety basis documents, the TSR, and procedures. (DOE O 5480.19, Ch. XIII; 10 CFR 830, Subpart A, Criterion 2)
5. Radiological controls, QA, and waste management support personnel demonstrate a practical and adequate level of knowledge to support normal, abnormal, and emergency operations. Appropriate plans and procedures for operational support services are issued. (10 CFR 830, Subpart A, Criterion 2)
6. Facilities and equipment for operations support are identified, controlled, and available to support safe operations. (DOE O 420.1A)
7. Managers, operations personnel, and support personnel demonstrate competence commensurate with responsibility through written and oral exam records, walkthroughs, interviews, and performance demonstration. (DOE P 450.4)

Approach

Record Review: Review safety documentation and the associated administrative controls to ensure that minimum staffing requirements are defined. Determine if the SN process operations have a sufficient number of qualified operations and operations support personnel for safe operation and maintenance. Compare with personnel records to assess the ability of the facility to field the required personnel.

Review the procedures or policies that describe the personnel selection and entry-level requirements to ensure they address the minimum physical attributes a trainee must possess, as well as the minimum educational, technical, and experience requirements necessary for the employee to meet the job requirements.

Interviews: Interview operators, supervisors, radiological control personnel, and their

supervisors to assess their level of knowledge of SN process systems, operating procedures, authorization basis documents, and the fundamentals of SN process operations for safe operation, including transition during startup.

Interview operators and supervisors to ensure they understand the minimum staffing requirements for all modes of facility operations. Interview management, technical, and operations personnel on the authorization basis documents, TSR, and procedures to determine their level of knowledge.

Observations: Observe drills, routine evolutions, and normal operations to assess technical understanding and ability of the operators and supervisors to carry out their duties and to safely operate systems and components in accordance with approved plant procedures. Assess staffing levels while observing drills and routine evolutions to determine if they are adequate and satisfy administrative and authorization basis requirements.

OBJECTIVE

OP.2 – (Core Requirement 11) A routine drill program and emergency operations drill program, including program records, have been established and implemented. (Old Core Requirement 9)

Criteria

1. Abnormal operating procedures and emergency operating procedures are available to the operators, and operating/construction personnel can respond satisfactorily to upset conditions. (DOE O 5480.19, Ch VI)
2. Emergency response personnel are prepared to provide adequate support to the facility. (10 CFR 830.204(b)(5); DOE O 151.1)
3. Emergency drills are performed and documented. (DOE O 151.1)
4. Personnel have successfully demonstrated performance of operational drills. (DOE O 5480.19, Ch VI; DOE O 151.1)

Approach

Record Review: Review the Emergency Plan, the operating procedures, and the abnormal operating procedures. Review the applicable hazard assessments and hazard screening documents. Review the drill records that describe the routine drills that have been conducted in the past year. Determine if the drill scenarios were adequate and if the requisite number of drills has been conducted to adequately test personnel, procedures, and equipment in a broad range of facility operations. Determine if lessons learned from drills are considered in subsequent drills and training.

Interviews: Interview personnel responsible for the development and conduct of drills to evaluate their understanding of the purpose and their ability to execute the drill program.

Observations: Attend and assess drill preparations, prebriefs, conduct, and critiques. Determine if the operational drills test operators and operations support personnel with realistic and challenging scenarios. Evaluate whether an adequate response capability exists.

OBJECTIVE

OP.3 – (Core Requirement 13) The formality and discipline of operations is adequate to conduct work safely, and programs are implemented to maintain this formality and discipline (e.g., DOE O 5480.19). (Old Core Requirement 12)

Criteria

1. A conduct of operations implementation matrix has been developed, approved, and implemented. Personnel have been trained and qualified, and they comply with the required elements of conduct of operations. (10 CFR 830.204(b)(5); DOE O 5480.19)
2. Personnel understand and practice appropriate conduct of operations culture during shift performance periods. (DOE O 5480.19)
3. Management planning and controls are in place such that performance of routine and nonroutine work packages, including preventive maintenance, do not impact safe operations of the SN process. (DOE O 5480.19; DOE O 440.1)

Approach

Record Review: Review recently completed operations logs, shift turnover documents, and other plant records of SN process operations to assess compliance with conduct of operations principles and the DOE 5480.19 compliance matrix. Assess the compliance and accuracy of the status of the FWENC Conduct of Operations Program to the DOE Order requirements. Review the Plan of the Day and approved work packages to understand how the construction activities in the WPF are planned and controlled so that safe SN process operations are not impacted.

Interviews: Interview operators and supervisors to assess their understanding of the conduct of operations principles in the performance of their duties.

Observations: While observing SN process evolutions and drill response, determine if the facility is effectively implementing the conduct of operations requirements. Attend shift turnovers, incident critiques, and prejob briefings, and observe control room activities, operator rounds, facility walkdowns, procedure use, communications, response to alarms, control of system status, and lockout/tagout activities. Review quantities of chemically hazardous materials against area limits to ensure their control and identification and to ensure operations and maintenance personnel are knowledgeable of such requirements. In addition, observe radiological control personnel in their abilities to implement the Radiological Control Program.

OBJECTIVE

OP.4 – (Core Requirements 9 and 10) There are adequate and correct procedures for operating and maintaining the SN process systems and utility systems. The facility procedures are consistent with the description of the facility, procedures, and accident analysis included in the safety basis. (Old Core Requirements 1, 15, and 18a)

Criteria

1. Operating, surveillance, maintenance, and emergency/alarm response procedures are in place. Procedures adequately define safe operations to include normal and off-normal operations. (DOE O 5480.19, Ch. XVI; 10 CFR 830, Subpart A)
2. Operating, surveillance, and maintenance procedures required for performance of SN process operations are consistent with the approved safety basis and incorporate appropriate safety limits. (10 CFR 830.200; DSA)
3. Work control processes are defined and implemented. (Contract Clause H-25)
4. Procedures reflect the current configuration of equipment, systems, and processes required for SN process operations. (DOE O 5480.19, Ch. XVI; 10 CFR 830, Subpart A)
5. Procedures and procedure changes are adequately reviewed and approved prior to their

implementation. Temporary changes or revisions are adequately controlled. (DOE O 5480.19, Ch. XVI; 10 CFR 830, Subpart A)

Approach

Record Review: Review operating procedures, maintenance procedures, and maintenance work packages/plans for implementation of the authorization basis documents (i.e., DSA, TSR, and SER) and the requirements for equipment use/operation. Review a sample of the TSRs for proper identification of operations controls. Review job hazards analyses of SN process operations and verify that a work control process has been defined and implemented. Review technical procedures and administrative procedures for compliance with the FWENC procedure development and change control process. Assess the adequacy of the review and approval process for procedures. Assess the currency of procedures, and verify that the current configuration of equipment and systems is reflected in operations, maintenance, and surveillance procedures.

Interviews: Interview the SN process operators and maintenance personnel and their supervisors to assess their understanding of how they verify the latest approved revision of a procedure. Interview operator and supervisors and assess their understanding of site procedure compliance policy. Interview the shift manager on his understanding of the operations controls in the TSR and their application in procedures. Interview operators and supervisors regarding the use of the work control process.

Observations: While observing normal operations, work package evolutions, and drill response, determine if the SN process procedures have adequate content, level of detail, and acceptance criteria and if they properly implement safety requirements. Verify that procedures used by the operators are properly controlled to ensure only the latest revision is used. Verify that operators are following the site procedure compliance policy. If temporary procedure changes are necessary, assess the steps taken by an operator and supervisor in the review and approval process.

OBJECTIVE

OP.5 – (Core Requirement 12) An adequate startup program has been developed that includes plans for graded operations and testing after startup to simultaneously confirm the operability of equipment, the viability of procedures, and the performance and knowledge of the operators. The plans should indicate validation processes for equipment, procedures, and operators after startup of operations, including any required restrictions and additional oversight. (Old Core Requirement 10)

Criteria

1. The startup plan and procedures are adequate and are being implemented. (DOE O 425.1)
2. Operations personnel are trained and qualified to perform operations in accordance with the startup plan. (DOE O 425.1)
3. Compensatory measures are specified with plans for graded operations until steady state operations can be achieved. (DOE O 425.1)

Approach

Record Review: Review the results and reports from actions taken prior to initiation of the startup plan, including those associated with the systems and operations testing program, management self-assessments, and the contractor ORR, including any lessons learned and corrective actions. Review the SN process operations startup plan. Evaluate the status and adequacy of actions under the plan, including the phased approach to

normal operations, viability of procedures, additional operator training plans, and equipment startup testing. Interviews: Interview management personnel to determine their knowledge and understanding of the expectations for additional oversight or compensatory measures until steady state operations are achieved. Personnel to be interviewed include the Operations Manager, ESH&QA Manager, Wet Waste Operator, BOP Operator, and Maintenance Supervisor.

Observations: Observe operations using surrogate materials to verify adequate plans for graded operations testing to simultaneously confirm operability of equipment, the viability of procedures, and the training of operators under the startup plan.