

ORNL - Restart of the High Flux Isotope Reactor 2-07 (Contractor ORR)

Management and Organization

OBJECTIVE MG-1: Line management has integrated within its existing ISM system and implementing mechanisms, programs that appropriately address CS operations, hazards, and reactor interface to assure safe accomplishment of work. Safety management programs of particular interest include the following (CR – 1):

- maintenance and testing (addressed by MT-1)
- conduct of operations (addressed by OP-1 and -5)
- training/qualification (addressed by TR-1)
- nuclear safety (addressed by AB-2)
- emergency management (addressed by EP-1 and -2)
- configuration management (addressed by ES-3)
- fire protection (addressed by ESH-4)
- industrial safety and hygiene (addressed by ESH-2)
- quality assurance (addressed by ESH-6)
- conduct of engineering (addressed by ES-1 and -2)

Criteria

- The above safety management programs are established and functioning to support reactor operation with the CS. Functions, assignments, responsibilities, and reporting relationships are clearly defined, understood, and effectively implemented and the safety management program owner organizations are adequately staffed with qualified personnel.

Approach

Record Review: Review the ISM description to ascertain that it is current with respect to annual updates, that it is approved, and that it sufficiently “umbrellas” the unique aspects of operation and hazard associated with the CS. Review and analyze the ORR assessment results from ORR Objectives AB-1, EP-1, ES-1, ES-3, ESH-2, ESH-4, ESH-6, MT-1, OP-5, and TR-1 to determine and document overarching conclusions related to ISM.

Interviews: Interview the RRD Director and selected direct reports to assess their understanding of how ISM and related safety management programs underpin reactor operations with the CS. Determine if their understanding and awareness is sufficient to assure safe operations.

Shift Performance: None.

OBJECTIVE MG-2: Senior management exhibits awareness of applicable requirements pertaining to CS operation, hazards, and reactor interface. Through their actions, they have demonstrated a high-priority commitment to comply with these requirements. The level of knowledge of senior managers related to CS operations, hazards, and reactor interface is adequate based on interviews. (CR – 1, CR - 4)

Criteria

- RRD Senior managers demonstrate a comprehensive awareness of operations with the CS, associated systems and components related to safety, and applicable safety management program requirements.
- Senior managers demonstrate high priority commitment and adequate attention to health, safety, and environmental protection issues.

Approach

Record Review: None.

Interviews: Interview the RRD Director and selected direct reports to assess their understanding of how their actions relate to the safety basis for reactor operations with the CS and related safety management programs. Determine if their level of knowledge is adequate to assure safe operations. Determine if they have adequate knowledge of health, safety, and environmental issues related to reactor and CS operations. Interview staff personnel to determine if senior management's commitment and attention to health, safety, and environmental protection issues (including the right and responsibility of all employees to report safety issues) are communicated and demonstrated.

Shift Performance: Observe drills, routine evolutions, and normal operations to assess management's involvement in assuring safe, compliant operation.

OBJECTIVE MG-3: Functions, assignments, responsibilities, and reporting relationships, including those between line organizations and support organizations are clearly defined with line management responsible for safety. (CR – 2)\

Criteria

A clear management structure is established, approved, and in place for RRD, for operation with the CS. This structure is implemented and is understood by operations and support personnel.

Approach

Record Review: Review the contractor organizational structure and determine that there are clear lines of authority and responsibility for control of safety. Discuss with the other ORR team members any deficiencies they have noted in their functional area reviews to ensure that the review results are consistent.

Interviews: Interview selected RRD senior managers and staff personnel to ensure they understand their roles and responsibilities for control of safety and that there are no concerns or impediments for fulfilling those roles and responsibilities.

Shift Performance: None.

OBJECTIVE MG-4: New and revised requirements resulting from the CS modification which require formal agreement with DOE in order to govern safe operation of the facility are in place via the contract or other enforceable mechanism. A systematic review of the facility's conformance to these requirements has been performed. The requirements have been implemented in the facility or compensatory measures are in place during the period of implementation. Any such

compensatory measures and the implementation period have been approved by DOE. (Should also be coordinated with ORR Objective AB-5.) (CR – 14)

Criteria

A formal program has been established which ensures that the applicable requirements of DOE orders and directives applicable to CS operations are identified and evaluated for compliance.

Approach

Record Review:

- (1) Review the procedures used for conducting DOE order compliance reviews to ensure that they contain adequate guidance for identifying requirements and assessing the status of compliance.
- (2) Review any compliance schedule approvals, exemptions, and compensatory measures associated with the Contract List B requirements applicable to CS and reactor operations.
- (3) Verify compensatory measures, if any, have been formally approved by UT-Battelle and DOE and implemented and schedules to gain full compliance with applicable DOE Orders and directives have been approved by UT-Battelle and DOE.

Interviews: Interview RRD senior management personnel to ensure that they are aware of any non-compliances and actions necessary to fully implement requirements, as well as any interim compensatory measures or items captured in the facility commitment tracking system.

Shift Performance: None.

OBJECTIVE MG-5: A feedback and improvement process is established and implemented to identify, evaluate, and resolve deficiencies and recommendations made by independent review groups, official review teams, audit organizations, and the operating contractor, including those associated with the CS. (CR – 15)

Criteria

A system for identifying, reviewing, cataloging, and resolving deficiencies and recommendations is adequately implemented.

Approach

Record Review:

- (1) Review issues management information since December 31, 2005, including the commitment tracking system database, selecting representative RRD issues, including issues associated with the CS, to assess the adequacy of the program (including its inclusion of CS issues). Assess the backlog and the prioritization system for reducing the backlog. Assess implementation of selected corrective actions and RRD activities to validate effectiveness of those corrective actions.

- (2) Evaluate open issues in the commitment tracking system database for potential impact on the ability to safely startup operations with the CS.
- (3) Sample the line management self assessment results to determine if identified issues, including CS-related issues, are being appropriately addressed in that, for these issues, corrective actions are appropriately defined, implemented, and tracked to closure and improvements are monitored for effectiveness.
- (4) Review selected program improvements from the "2003 Comprehensive Corrective Action Plan" to ascertain their consideration and implementation for reactor operation with the CS.

Interviews: Interview selected RRD management and performance assurance personnel to establish their competency and understanding of the program as it relates to CS and reactor operations.

Shift Performance: If possible, evaluate the effectiveness of the issues management process to identify, review, prioritize, and disposition CS deficiencies identified during the ORR.