

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

### **Configuration Management**

**OBJECTIVE CM-1:** The CS system and reactor systems affected by the CS modification and associated drawings are consistent with the description and accident analysis included in the DSA and a system to maintain control over their design and modification is established. (CR-9)

#### **Criteria**

- The design requirements have been formally established, documented, and maintained for the CS.
- An adequate process has been implemented to ensure that documentation for systems critical to the safety of the facility during operation with the CS exists and is kept current as appropriate for their safety functions, and the documentation is available to the operators.
- Cold Source and reactor interface equipment has been included in the configuration management program.
- Drawings and other documentation relied upon for operations and maintenance activities are consistent with existing plant configuration.
- Configuration management program improvements resulting from the 2004 DOE Office of Independent Oversight review have been applied to the CS modification.

#### **Approach**

##### Record Review:

- (1) Review the configuration management process to ensure it will maintain up-to-date plant configurations.
- (2) Verify the types of equipment to be included in the configuration management program have been identified and are based on the functions provided by the SSCs.
- (3) Review a selected sample of completed unreviewed safety questions (USQs)/USQDs for design changes, special procedures, tests, and other proposed changes. Review a selected sample of initial USQ screenings, supporting USQ safety evaluations, and PISA evaluations (if any). Determine the status of all ongoing USQDs, USQs, and PISAs (if any) and evaluate their implications on reactor operations with the CS.
- (4) Review equipment and component designations in the computer history and maintenance planning system database for agreement with the designations of safety SSCs in the CS DSA.
- (5) Review the CS system design description (SDD) to determine their consistency with the description of the facility included in the CS DSA.

- (6) Review selected recent design changes and modifications to ensure that they have been reflected in drawings and documents available to operations and maintenance personnel, and are consistent with actual system configuration and the underlying analytical basis.
- (7) Review records for temporary modifications, if any, and verify required analysis is conducted and any required actions are implemented during the period the temporary modifications are in place.
- (8) In reviewing the above documents, confirm that corrective actions taken in response to the configuration management weaknesses reported in the 2004 DOE-OA assessment have been effectively implemented for reactor operation with the CS.

Interviews:

- (1) Interview personnel responsible for developing, reviewing, and approving USQ determinations and supporting safety analyses for proposed facility activities to assess their understanding of the program, individual responsibilities, and safety basis documents.
- (2) Interview personnel responsible for implementing configuration management requirements to assess their understanding of the program, individual responsibilities, and safety basis documents.
- (3) Interview the RRD CS design authorities to determine if outstanding and implemented modifications have been incorporated into the configuration management program.
- (4) Interview the RRD CS design authorities and personnel responsible for implementing configuration management program requirements to determine their understanding of configuration management weaknesses identified in the 2004 DOE-OA assessment and associated corrective actions taken to resolve those weaknesses.
- (5) Interview selected maintenance managers and cognizant engineers to determine if they are aware of their configuration management responsibilities.

Shift Performance:

- (1) Walk down selected CS and reactor safety systems to determine if procedures, drawings, and safety basis documents are accurate and controlled. Include at least one modification in the walk-down.
- (2) Walk down a temporary modification, if one is in effect, and evaluate the accuracy of the temporary modification records and drawings.

s and components under their cognizance.