

## **ORNL - Restart of the High Flux Isotope Reactor 2-07**

### **MAINTENANCE AND TESTING (MT)**

#### **OBJECTIVE MT-1:**

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

#### Criteria

- A test program is in place to confirm the condition and operability of safety SSCs for HFIR.
- Testing is performed after maintenance activities to confirm the effectiveness of the maintenance and the operability of safety SSCs.
- Surveillance testing is performed to maintain the operability of safety SSCs consistent with the TSR surveillance requirements.
- The material condition of all safety, process, and utility systems will support the safe conduct of work.
- Safety SSCs required to support HFIR operation have been determined to be operable.

#### Approach

##### *Record Review:*

1. Review the scope of the integrated test program to confirm that it will establish the condition and operability of the SSCs needed for HFIR operation. Examine completed integrated system test procedures on a sampling basis to verify that they include evidence demonstrating the operability of the safety SSCs.
2. Review approved surveillance procedures, schedules, and results to confirm that requirements from the DSAs and associated TSR have been implemented satisfactorily.
3. Review a sample of work packages on selected safety-related systems modified or refurbished during this outage and the CS to verify that appropriate post maintenance testing has been completed.
4. Confirm that the process defined in MMP-0705, *Outage Management*, for evaluating in progress work packages at the end of an outage will satisfactorily characterize the status of the work, operability of the SSCs, and appropriateness of the configuration for HFIR operation with the CS.

##### *Interviews:*

Interview selected personnel associated with the HFIR Updated Safety Analysis Report and DSA surveillance program, including selected cognizant engineers, to assess their understanding of the surveillance testing requirements and basis.

*Shift Performance:* Observe selected surveillances and/or maintenance activities to assess the ability of operations and support staff to complete the required surveillances/activities in a satisfactory manner. Walk down selected SSCs to provide evidence that the as-built configuration is consistent with that shown on the facility documentation (e.g., drawings, procedures, the DSAs) and will support safe operations.