

NRC INSPECTION MANUAL

FCSS

ATTACHMENT 88135.19

RESIDENT INSPECTION PROGRAM
POST-MAINTENANCE TESTING

88135.19-01 INSPECTION OBJECTIVES

The objectives of this procedure are to provide requirements and guidance for evaluating and ensuring that the facility Items Relied On For Safety (IROFS) are available and reliable to perform their function when needed, to comply with the performance requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 70.61 and 10 CFR 70.62. The purpose of the inspection is to verify that the post-maintenance test procedures and test activities are adequate to verify system operability, and functional capability.

88135.19-02 INSPECTION REQUIREMENTS AND INSPECTION GUIDANCE

02.01 Quarterly Post-Maintenance Testing.

- a. Inspection Requirement. Verify that IROFS are available and reliable to perform their function when needed in accordance with the performance requirements of 10 CFR 70.61.
- b. Inspection Guidance. Observe post-maintenance testing activities which affect safety-significant systems and components, to ensure activities are safely conducted.

Select post-maintenance testing activities that affect safety-significant systems or components. For the post-maintenance testing activity, evaluate the following:

1. Review the applicable Integrated Safety Analysis documents to identify the safety function(s) of the affected system(s) and/or component(s).
2. Review the associated maintenance activity to identify the safety function(s) that may have been affected by that activity.
3. Review the licensee's test procedure to verify that the procedure adequately tests the safety function(s) that may have been affected by the maintenance activity, that the acceptance criteria in the procedure are consistent with information in the applicable licensing basis and/or design-basis documents, and that the procedure has been properly reviewed and approved.

Based on the availability of time, the inspector may also verify testing is being conducted in accordance with the vendor manuals for selected components.

4. Observe the test to verify that:
 - (a) The performance of the affected system(s) and/or component(s) satisfies the procedure's acceptance criteria;
 - (b) The effects of testing on the plant have been adequately addressed;

- (c) The test equipment is calibrated, and is within its current calibration cycle;
- (d) The test equipment used is within its required range and accuracy;
- (e) The applicable prerequisites described in the test procedure are satisfied;
- (f) The affected systems or components are removed from service in accordance with approved procedures;
- (g) The test is performed in accordance with the test procedure and other applicable procedures;
- (h) Jumpers installed and/or leads lifted during testing are controlled and restored;
- (i) Electrical connections are secure and maintain their intended design function;
- (j) The test data/results are accurate, complete, and valid;
- (k) The test equipment is removed after testing;
- (l) After completion of testing, equipment is returned to the positions/status required to maintain the system operable in accordance with approved procedures;
- (m) Any problems noted during testing are appropriately documented;
and
- (n) Annunciator and other alarms potentially interfacing with performed maintenance are demonstrated to be functional and setpoints consistent with design documents.

Whenever possible, the inspector should attend the pre-job briefing, witness the test when it is performed, and attend any post-test critiques, as applicable.

If it is not possible to observe the test as it is performed, as a minimum, perform a review of the completed test procedure and the recorded data.

02.02 Identification and Resolution of Problems.

- a. Inspection Requirement. Verify that the licensee is identifying post-maintenance testing problems at an appropriate threshold and entering them in the corrective action program.

For a sample of significant post-maintenance test problems documented in the corrective action program, verify that the licensee has identified and implemented appropriate corrective actions.

- b. Inspection Guidance. The inspector should use the guidance in Attachment 02, "Plant Status," Section 02.05, "Identification and Resolution of Problems," when verifying the effectiveness of corrective actions.

88135.19-03 RESOURCE ESTIMATE

The inspection is estimated to take 64 hours annually for sites with two residents, and 24 hours for sites with only one resident. Time spent conducting activities associated with this procedure should be charged to Inspection Procedure 88135. Completion of post-maintenance test inspection activities should be documented in the quarterly inspection report for the quarter in which they were performed.

88135.19-04 REFERENCES

10 CFR 70.61, "Domestic Licensing of Special Nuclear Material," Subpart H, "Performance Requirements"

10 CFR 70.62, "Safety Program and Integrated Safety Analysis"

NUREG-1513, "Integrated Safety Analysis Guidance," June 2004

88135.19-05 PROCEDURE COMPLETION

Inspection of the minimum sample size will constitute completion of this procedure. The minimum sample size is recommended to consist of at least 1 sample per quarter with a total of 6 samples per year for a facility with one resident inspector and at least 3 samples per quarter with a total of 16 per year for a facility with 2 resident inspectors.

END

Attachment:
Revision History for IP 88135.19

Attachment 1 - Revision History for IP 88135.19

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment and Feedback Resolution Accession Number
N/A	ML13233A176 01/31/14 CN 14-004	IP 88135 was revised in its entirety. ¹ Attachment 88135.19 is new.	N/A	ML13354B905

¹ Specific changes include:

- Incorporated specific language requiring that inspection planning be risk-informed.
- Incorporated specific language requiring inspectors to address corrective action program effectiveness when performing inspections.
- Where it was determined that to maintain specific program elements within the 88135 base procedure (such as elements related to fire protection) would make the procedure too cumbersome, these elements were broken out separately using attachments.
- Incorporated program weaknesses identified in the July 2010 Self-Assessment of the Division of Fuel Facility Inspection Program recommending inspection procedures focus less on the observation of maintenance procedures and more on post-maintenance testing and surveillance testing.
- Revised format to comply with the requirements of MC 0040.