
INSPECTION MANUAL CHAPTER 2650

FUEL CYCLE INSPECTION ASSESSMENT PROGRAM

Effective Date: 11/08/2018

2650-01 PURPOSE

The purpose of this manual chapter is to provide the process for annually assessing the Fuel Cycle Inspection Program. This self-assessment process will evaluate the overall effectiveness of the Fuel Cycle Inspection Program in meeting its established goals and intended outcomes.

2650-02 OBJECTIVES

02.01 Determine the adequacy of inspection program requirements and guidance, including inspection procedures and manual chapters.

02.02 Determine whether inspection documentation is consistent with agency regulations, guidance, and technical positions.

02.03 Provide timely, objective information to inform program planning and to develop recommended improvements to the inspection program.

2650-03 APPLICABILITY

The self-assessment process described in this Inspection Manual Chapter (IMC) applies to all processes and procedures that are utilized to implement the Fuel Cycle Inspection Program.

2650-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Director, Division of Fuel Cycle Safety, Safeguards and Environmental Review (FCSE), Office of Nuclear Material Safety and Safeguards (NMSS)

- a. Oversees the implementation of the self-assessment program.
- b. Develops policies and procedures for the self-assessment program.
- c. Reviews, approves, and ensures issuance of the annual self-assessment report.

04.02 Director, Division of Fuel Facility Inspection (DFFI), Region II

- a. Ensures regional data is collected and submitted to facilitate analysis.
- b. Supports self-assessment reviews, as applicable.
- c. Reviews and approves the annual self-assessment report.

04.03 Chief, Fuel Facility Licensing and Oversight Branch (FLOB) NMSS/FCSE

- a. Develops policies and procedures for the self-assessment program.
- b. Ensures data from all sources are collected and consolidated to facilitate analysis.
- c. Recommends and implements improvements to the self-assessment program.
- d. Develops the annual self-assessment report.
- e. Signs the annual self-assessment report and sends to Directors of FCSE and DFFI for review.

2650-05 ELEMENT 1: EFFICACY REVIEW

The efficacy review will determine whether inspection guidance¹ is sufficient to identify performance issues observed through recent experience.

05.01 Assessment Area 1: Assess the sufficiency of inspection guidance to support the proactive identification of safety, safeguards, and regulatory performance issues as revealed by operating experience.

- a. Lead Organization: NMSS/FCSE/FLOB
- b. Assessment Activities: Review all Part 70 Appendix A reportable events (over the past 10 years) and other documented issues (e.g., findings or unresolved items in inspection reports) that occurred during the assessment period.
 - Determine whether the relevant inspection procedures have the appropriate scope and focus to identify and assess the issues revealed through recent experience.
 - Determine if changes in frequency or level of effort are needed to address trends and concerns identified by operating experience.
- c. Guidance: Review the Annual Fuel Cycle Operating Experience Report, including any conclusions concerning trends and/or common causes and contributing factors; compare them to the inspection areas in applicable inspection guidance and procedures. The distribution of inspection resources should be commensurate with the perceived risk significance and informed by operating experience.

Note: If safety significant issues or adverse trends arise in areas that were not inspected, this may indicate that the scope of an inspection procedure may need to be revised. If safety significant issues or adverse trends arise in areas that were inspected but not identified by inspectors, this may indicate a need for additional inspection guidance.

Criterion: Propose changes or improvements to inspection guidance as necessary.

¹ The term "inspection guidance" refers to Manual Chapters, Inspection Procedures, Regional Office Instructions, etc.

2650-06 ELEMENT 2: CONSISTENCY REVIEW

The consistency review will determine whether inspection guidance is sufficient to ensure technical adequacy and consistency with established Agency technical positions.

06.01 Assessment Area 1: Assess the sufficiency of inspection guidance to ensure technical adequacy and consistency of inspection reports.

- a. Lead Organization: NMSS/FCSE/FLOB
- b. Assessment Activities: Audit a 25% sample of inspection reports, inspection-related correspondence, and associated inspection guidance. Determine the adequacy of the guidance to produce consistent, technically adequate results. Interview a selection of inspectors. Evaluate the sufficiency of inspection guidance in providing adequate direction to inspectors.
- c. Guidance: Inspection reports should contain adequate detail to enable traceability; through the available documentation to the determinations and conclusions.

Note: If any technical inconsistencies or inaccuracies in guidance or inspection reports are discovered, they should be raised to the FLOB and DFFI Branch Chiefs and documented in the assessment report.

- d. Criterion: No significant technical inconsistencies or inaccuracies identified in the documents reviewed. No more than 5% of inspection reports should be amended for substantive reasons (e.g., factual errors, missing information, mishandling of OUO). "Significant" means there are material inconsistencies or inaccuracies that could reduce confidence in the staff's conclusions or have a negative effect on safety or safeguards.

06.02 Assessment Area 2: Inspection results are documented in accordance with requirements.

- a. Lead Organization: NMSS/FCSE/FLOB
- b. Assessment Activity: Determine whether inspection reports are written in accordance with inspection guidance (IMC 0616, "Fuel Cycle Safety and Safeguards Inspection Reports").
- c. Guidance: Select a 25% sample of inspection reports to determine if they are being documented in accordance with established procedures and written in plain English.
- d. Criterion: Report identified weaknesses and recommend improvements in guidance or training.

06.03 Assessment Area 3: Assess the sufficiency of inspector training, qualification, and knowledge management.

- a. Lead Organization: NMSS/FCSE/FLOB

- b. Assessment Activity: Review the training requirements contained in IMC 1247 “Qualification Program for Fuel Facility Inspectors in the Nuclear Material Safety and Safeguards Program Area,” to determine whether any topics should be added or changed.
- c. Guidance: Use the findings from Sections 05 and 06 of this IMC to determine if additional training or knowledge management is needed. Review the training materials and presentations that were used for knowledge management seminars to determine if additional formal training or changes to the qualification program are needed.
- d. Criterion: No significant gaps in training and qualification requirements. Summarize and evaluate the training accomplished over the assessment year and propose program improvements as necessary to address noted concerns.

2650-07 ELEMENT 3: COMPLETENESS REVIEW

The completeness review will determine whether the inspection program is being implemented consistent with inspection guidance and established metrics to ensure the timely coverage of all licensees, disciplines, and facility/process areas as appropriate.

07.01 Assessment Area 1: Analyze resource data for the completion of the core inspection program, supplemental/plant specific inspection, and other inspection activities.

- a. Lead Organization: NMSS/FCSE/FLOB
- b. Assessment Activities: Verify completion of the core inspection program, as defined in IMC 2600, Appendix B, or as modified by the Licensee Performance Review (LPR) or any program adjustments.
 - Determine whether the total number of hours, inspection modules, and facilities/process areas were completed in accordance with the inspection guidance.
 - Track and trend resource usage for the core inspection program, supplemental/plant specific inspections, preparation, documentation, and other inspection activities, and assess the effects on budgeted resources.
- c. Guidance: Issues and events that impacted completion of the core inspection program should be discussed in the report, including reactive or special inspections.
- d. Criterion: 100% completion of core inspection program in accordance with IMC 2600. Track and trend resource usage to improve the efficiency of the inspection program and to inform management and budget decisions.

07.02 Assessment Area 2: Assess the timeliness of inspection reports and temporary instructions.

- a. Lead Organization: NMSS/FCSE/FLOB
- b. Assessment Activities: Obtain data from the project inspectors and the Reactor Program System-Inspections (RPS-Inspections) on the total number of inspection reports issued

and the number of reports issued within timeliness goals as stipulated in IMC 0616. Audit the time to complete temporary instructions (TIs). Compare the completion status in RPS-Inspections to TI requirements. Report the number of TIs closed within goals.

- c. Guidance: Any challenges in meeting timeliness metrics should be documented in the assessment report.
- d. Criteria: Issuance of 90% of core inspection reports within the program's timeliness goals. Issuance of 100% of TI inspection reports within TI timeliness requirements.

2650-08 RESOURCE ESTIMATE AND DOCUMENTATION

It is expected that the self-assessment described in this manual chapter will take between 80 and 120 hours to complete. The assessment results will be compiled in an annual report to the Office of Nuclear Material Safety and Safeguards (NMSS), Division of Fuel Cycle Safety, Safeguards, and Environmental Review (FCSE) and Region II (RII), Division of Fuel Facility Inspection (DFFI) management. All findings should be supported with data and specific examples. In addition to evaluating the overall effectiveness of the Fuel Cycle Inspection Program in meeting its established goals and intended outcomes, the report should also make recommendations to address any deficiencies or areas for improvement.

2650-09 REFERENCES

IMC 0616, "Fuel Cycle Safety and Safeguards Inspection Reports"
IMC 1247, "Qualification Program for Fuel Facility Inspectors in the Nuclear Material Safety and Safeguards Program Area"
IMC 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program"
IMC 2604, "Licensee Performance Review"

END

Attachment:

Revision History for IMC 2650

Attachment 1 – Revision History for IMC 2650

| Commitment Tracking Number | Accession Number Issue Date Change Notice | Description of Change | Description of Training Required and Completion Date | Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information) |
|----------------------------|---|--|--|---|
| N/A | ML18114A806 11/08/18 CN 18-038 | New document. A four-year historical search for commitments was conducted and no commitments were found. | N/A | N/A |