
INSPECTION MANUAL CHAPTER 2694 APPENDIX B

FUEL FACILITY CONSTRUCTION INSPECTION PROGRAM, LICENSEE PERFORMANCE REVIEW (LPR), SUPPLEMENT FOR INSPECTION MANUAL CHAPTER 2694

Effective Date: 06/24/2025

2694B-01 PURPOSE

This appendix provides guidance for assessing new licensee's performance in the construction and pre-operational phases, and to provide feedback on the assessment regarding the quality of the new licensee construction and pre-operational programs, and if reasonable assurance exists that the safety operations program will perform as intended once operation begins. The responsibilities and authorities, performance review scheduling, review process, and documentation guidelines are specified in Inspection Manual Chapter (IMC) 2604, "Licensee Performance Review." Note: Licensee Performance Reviews (LPRs) do not apply to applicants constructing at-risk.

The LPR for new licensees constructing new facilities are performed in accordance with IMC 2604. This appendix provides additional assessment areas to consider for new licensees constructing new facilities and inspected under the oversight program described in IMC 2694, "Fuel Cycle Facility Construction and Pre-Operational Readiness Review Inspection Program." This appendix does not apply to existing licensees that are performing major modifications and inspected under the oversight program described in IMC 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program." However, staff can reference this appendix as additional guidance when considering the LPR attributes for existing licensees with major modifications occurring.

The LPR for fuel cycle facilities under construction should:

- 01.01 Provide an assessment of new licensee performance to NRC management.
- 01.02 Inform the new licensee and the public how the NRC assesses facility performance during construction.
- 01.03 Provide a basis for adjusting the construction and pre-operational inspection program including such areas as focus, frequency, and resources.

2694B-02 OBJECTIVES

- 02.01 To describe the processes for assessing the licensee's performance.
- 02.02 To ensure that the assessments are performed in a timely, effective, and efficient manner.

- 02.03 To ensure that the assessments are focused on determining if the licensee are constructing the facility in accordance with the licensing basis requirements and applicable management measures to verify reasonable assurance that the facility will operate safely.

2694B-03 DEFINITIONS

03.01 Construction Performance Areas

The following definitions describe the program and functional areas that form the basis for the LPR. It should be noted that depending on the stage of the construction project, not all functional areas would be applicable during a given assessment period. Each functional area comprises two or more inspection program areas.

a. Management Measures (MMs)

This includes activities involving implementation of the applicable MMs as described in the new licensee's MM program and in Chapter 11 of the license application.

1. MM Program/ Quality Assurance (QA) Program, if applicable. Evaluate the effectiveness of the new licensee's implementation of the controls as established in the MM or QA program, as applicable.
2. Design Control. Evaluate the control of the designs for safety significance items and services (SSIS), such as items relied on for safety (IROFS) and the control of activities associated with the preparation, review, approval, and verification of documents used for design, procurement, fabrication, and modification.
3. Categorization of IROFS. Evaluate the implementation of a graded MM/QA approach to the categorization of IROFS based on safety significance as described in the integrated safety analysis (ISA) or the integrated safety analysis summary (ISAS).
4. Configuration Management. Evaluate whether the licensee's configuration management system is performed in compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) 70.72 and controlled to preclude inadvertent degradation of safety; and that a system was established and implemented to evaluate, document, and track changes to the site, IROFS, processes, equipment, computer programs, and activities of personnel.
5. Procedures. Evaluate if the applicant or licensee is implementing a process for the preparation, use, and management control of written procedures as described in the safety program.
6. Audits and Assessments. Evaluate the performance of audits and assessments required during construction.
7. Records Management. Evaluate the records management system for the handling and storing of records generated or required in the design, construction, and operation phases of the facility.

- b. Facility Construction and Pre-Operation. This includes activities involving construction and pre-operational activities.
1. Construction Activities. Evaluate construction activities (foundation, structural concrete and steel, mechanical, electrical, and instrument components). Evaluate whether the activities were conducted in accordance with the license application, the safety evaluation report, the ISA, and the ISAS. Evaluate whether the licensee recognized non-routine events affecting safety, and identified and executed corrective actions to resolve deviations from commitments made in the MM program, as applicable.
 2. Pre-Operational Activities. Evaluate whether the licensee's performance, including implementation of the applicable MMs, to ensure SSIS testing of the facility performed during pre-operational or operational readiness phases are performed in accordance with the licensing basis. Evaluate pre-operational activities including whether the licensee has implemented an acceptable safety operations program (including chemical safety, criticality safety, operational safety, fire protection, and radiological controls programs).
 3. Facility Support. This includes MMs and systems including training, emergency preparedness, and maintenance. Note: these attributes may not be applicable during all phases of construction.
 - (a) Training and Qualification of Plant Personnel. Evaluate the training and qualification of facility personnel for activities relied on for the development of safety controls including the training, testing, retesting, and qualification of managers, designers, technical staff, construction personnel, technicians, and other personnel whose actions are relied on for safety.
 - (b) Emergency Preparedness. Evaluate the effectiveness of the licensee's emergency management program in protecting the workers, public, and the environment during reasonably postulated events that could threaten the facility.
 - (c) Maintenance. Evaluate the effectiveness of the licensee's maintenance program to ensure the functionality and operability of IROFS during reasonably postulated events that could threaten the facility and surrounding population.
 - (d) Safeguards and Security. Evaluate activities involving implementation of the applicable safeguards and security measures to assure adequate accounting and protection of special nuclear material during receipt and transfer operations.
 - (e) Special Topics. These are issues that may arise on an occasional basis, but are not included in the review on a routine basis unless the significance of the issue rises to a level that is perceived to affect the quality of licensee performance. Examples include the quality of application and licensing submittals, labor-management issues, and contractor difficulties.

03.02 Areas Needing Improvement (ANI)

Performance area with a single safety-significant, or security-significant issue, or significant recurring, or cross-cutting issue(s), requiring substantive corrective actions or actions to prevent recurrence. For construction and pre-operational activities, significant

breakdown in MMs implementation may result in consideration of an ANI. See IMC 2604 for specific definition and for additional information and examples.

ANIs only apply to licensees with an approved license. ANIs do not apply to applicants constructing “at risk.”

Additional considerations for construction and pre-operational phase, licensee performance and/or oversight of contractors’ performance, can result in areas that warrant additional NRC oversight, including additional inspections and resources.

2694B-04 EVALUATION FACTORS

04.01 The LPR should review the licensee's performance in each of the applicable functional areas using a common set of evaluation criteria. Specifically consider inspection findings (non-cited violations, notice of violations, unresolved items, etc.), and their regulatory significance, to inform the different evaluation factors. A suggested set of evaluation factors are provided below:

- a. Management involvement and oversight of the construction activities and/or contractors;
- b. Approach to identification and resolution of technical issues from a safety and safeguards perspective;
- c. Approach to events (including timeliness, analysis, reporting, effectiveness of corrective actions, and recognition of generic issues within the facility), as applicable;
- d. Potential staffing challenges that affect safety or quality (considering experience, expertise, and availability of staff and management);
- e. Aspects of performance that may reflect on the effectiveness of training and qualification programs relative to the specific functional area, as applicable; and
- f. Evidence of positive or negative performance trends.

04.02 Region II, Division of Fuels, Radiological Safety, and Security and the Office of Nuclear Material Safety and Safeguards may confer occasionally to consider the suitability of the current evaluation factors and recommend any necessary changes.

2694B-05 IMPLEMENTATION

05.01 Due to the dynamic nature of construction and associated schedules, along with unique challenges that can occur during new construction, LPR frequency for new licensees is on a 12-month (annual) assessment period, as discussed in IMC 2604. Based upon when the licensee’s construction starts, including the progress and timing of construction completion, considerations should be made when the licensee starts the assessment period. However, the assessment process should begin no later than the licensee’s start of construction as defined by 10 CFR 40.4 or 70.4, which is the installation of foundations, or in-place assembly, erection, fabrication, or testing for any structure, system, or component of a facility or activity subject to the regulations in 10 CFR Part 70 that are related to radiological safety or security.

- 05.02 The responsibilities and authorities, performance review scheduling, review process, and documentation guidelines specified in IMC 2604 should be used in conducting the LPR. However, construction projects can be delayed to the point that the licensee performs minimal or no activities during an annual assessment period. If that occurs, NRC management can determine that minimal assessment, documentation, and public meeting participation is needed to capture the assessment of the construction activities during that time period.
- 05.03 Assessment of licensee performance is a continuous process.

END

List of Attachments:

Attachment 1. Revision History for IMC 2694 Appendix B

Attachment 1: Revision History for IMC 2694, Appendix B

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)
	ML25030A115 06/24/25 CN 25-020	Construction Inspection Update: Major revision, including at-risk construction, use of Open Items, new Appendix C: "Principal Inspection Plan (PIP) Creation," and reference to three new construction inspection procedures: IP 88200, IP 88201, and IP 88202. Updates also made for RII reorganization.	N/A	N/A