
INSPECTION PROCEDURE 88201, APPENDIX D

PROCEDURES

Effective Date: June 20, 2025

PROGRAM APPLICABILITY: IMC 2600, 2694

88201.D-01 INSPECTION OBJECTIVES

- 01.01 To determine if the applicant or licensee has adequately developed and is implementing procedures to protect public health and safety as described in the facility integrated safety analysis (ISA).
- 01.02 To determine if the applicant's or licensee's procedures are adequately coordinated and integrated with other management measures.

Note: Required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 70.22(a)(8) are procedures to protect health and minimize danger to life or property (such as procedures to avoid accidental criticality, procedures for personnel monitoring and waste disposal, post-criticality accident emergency procedures, etc.).

88201.D-02 INSPECTION REQUIREMENTS

This inspection procedure (IP) is intended to provide inspection requirements and guidance applicable to a wide variety of potential construction projects at both existing and new fuel cycle facilities. These projects may vary greatly in scope, complexity, and risk to public health and safety. As a result, not all sections, or subsections, of this appendix may be applicable or implemented at a specific facility. Recommended inspection scope and hours for a specific new fuel cycle facility will be documented in the principal inspection plan (PIP) for that facility developed in accordance with Inspection Manual Chapter (IMC) 2694, "Fuel Cycle Facility Construction and Pre-Operational Readiness Review Inspection Program." Additionally, this appendix can be used to provide additional management measures inspection guidance for plant modification inspections at existing facilities but is not required to be implemented for these projects. Use of this appendix or sections of this appendix for modifications at existing fuel cycle facilities, would be done on a case-by-case basis, in accordance with IMC 2600, Appendix B, "NRC Core Inspection Requirements."

02.01 Procedure Development and Implementation

- a. Determine if the applicant or licensee is implementing a process for the preparation, use, and management control of written procedures as described in the ISA.
- b. Determine if the applicant or licensee has developed and is implementing procedures for the operation of items relied on for safety (IROFS) and for all management measures supporting those IROFS.

- c. Determine if the applicant or licensee has developed and is implementing procedures for site wide safe work practices to control processes and operations with licensed special nuclear material (SNM) and/or IROFS and/or hazardous chemicals incident to the processing of licensed material.

02.02 Temporary Procedures

Determine if the applicant and licensee is implementing formal requirements governing the use of temporary procedures.

88201.D-03 INSPECTION GUIDANCE

Specific Guidance

03.01 Procedure Development and Implementation (Inspection Requirement 02.01)

- a. The applicant's or licensee's process should include the basic elements of identification, development, verification, review and comment resolution, approval, validation, issuance, change control, and periodic review.
- b. The applicant's or licensee's process for identifying, developing, approving, implementing, and controlling procedures should consider the following aspects, as applicable:
 - 1. The applicant or licensee considers the ISA in identifying needed procedures.
 - 2. The procedure specifies operating limits and IROFS.
 - 3. Procedures include required actions for off-normal conditions of operation, as well as normal operations.
 - 4. If needed, procedures identify safety checkpoints, as appropriate.
 - 5. The applicant uses field tests to validate procedures.
 - 6. The management personnel who are responsible and accountable for the operation approve the procedures.
 - 7. The applicant specifies a mechanism for revising and reissuing procedures in a controlled manner.
 - 8. Quality Assurance (QA) elements and configuration management (CM) functions at the facility provide reasonable assurance that current procedures are available and used at all work locations.
 - 9. The training program instructs the required personnel in the use of the latest procedures.
- c. Procedures should incorporate the following elements:
 - 1. title and identifying information, such as number, revision, and date
 - 2. statement of applicability and purpose

3. prerequisites
 4. precautions (including warnings, cautions, and notes)
 5. important human actions
 6. limitations and actions
 7. acceptance criteria
 8. checkoff lists
 9. reference material
- d. Written procedures should cover all activities listed below. This list is not intended to be all inclusive or to imply that procedures must be developed with the same titles as those on the list.

1. Management Control Procedures

- (a) training
- (b) audits and assessments
- (c) incident investigation
- (d) records management
- (e) configuration management
- (f) quality assurance
- (g) equipment control (lockout/tagout)
- (h) shift turnover
- (i) work control
- (j) procedure management
- (k) nuclear criticality safety
- (l) fire protection
- (m) radiation protection
- (n) radioactive waste management
- (o) maintenance
- (p) environmental protection
- (q) chemical process safety
- (r) operations
- (s) calibration control
- (t) preventive maintenance

2. Operating Procedures

- (a) system procedures that address startup, operation, shutdown, control of process operations, and recovery after a process upset
 - (1) ventilation
 - (2) criticality alarms
 - (3) shift routines, shift turnover, and operating practices
 - (4) decontamination operations
 - (5) uranium recovery
 - (6) facility utilities (air, other gases, cooling water, fire water, steam)
 - (7) temporary changes in operating procedures
- (b) abnormal operation/alarm response
 - (1) loss of cooling water

- (2) loss of instrument air
 - (3) loss of electrical power
 - (4) loss of criticality alarm system
 - (5) fires
 - (6) chemical process releases
- 3. Maintenance Activities That Address System Repair, Calibration, Surveillance, and Functional Testing
 - (a) repairs and preventive repairs of IROFS
 - (b) testing of criticality alarm units
 - (c) calibration of IROFS
 - (d) high-efficiency particulate air filter maintenance
 - (e) functional testing of IROFS
 - (f) relief valve replacement/testing
 - (g) surveillance/monitoring
 - (h) pressure vessel testing
 - (i) non-fired pressure vessel testing
 - (j) piping integrity testing
 - (k) containment device testing
- 4. Emergency Procedures
 - (a) response to a criticality
 - (b) hazardous process chemical releases (including uranium hexafluoride)
- e. The applicant or licensee should verify that procedures are technically accurate and can be performed as written. Procedures should be periodically reviewed to ensure their continued accuracy and usefulness, and timeframes established for reviews of the various types of procedures.
- f. The applicant or licensee should have established and be implementing measures to review procedures after unusual incidents, such as an accident, unexpected transient, significant operator error, or equipment malfunction, or after any modification to a system and revises procedures as needed.
- g. Activities involving licensed SNM and/or IROFS should be conducted in accordance with approved procedures.
- h. Procedures and written guidance should be sufficiently detailed in nature to describe expectations for the conduct of activities associated with IROFS to ensure their availability and reliability. Such procedures should be subject to a review and approval process and periodic reviews to ensure their continued effectiveness and suitability for the activities to which they apply.
- i. The applicant or licensee should be implementing procedures to direct the following activities: design, CM, procurement, construction, radiation safety, maintenance, QA elements, training and qualification, audits and assessments, incident investigations, records management, criticality safety, fire safety, chemical process safety, and reporting requirements.

- j. Maintenance procedures involving IROFS should commit to the topics listed below for corrective and preventive maintenance and functional testing after maintenance and surveillance activities:
 - 1. Premaintenance activities involve reviews of the work to be performed, including procedure reviews for accuracy and completeness.
 - 2. Steps require notification of all affected parties (operators and supervisors) before performance of work and on completion of maintenance work. The discussion includes potential degradation of IROFS during the planned maintenance.
 - 3. Control of work is ensured by comprehensive procedures to be followed by maintenance technicians. The various safety disciplines, including criticality, fire, radiation, industrial, and chemical process safety, review maintenance procedures. The procedures describe the following:
 - (a) qualifications of personnel authorized to perform the maintenance or surveillance;
 - (b) controls on and specification of any replacement components or materials to be used (should be controlled by the CM function to ensure like-kind replacement and adherence to 10 CFR Part 21, "Reporting of Defects and Noncompliance");
 - (c) post-maintenance testing to verify operability of the equipment;
 - (d) tracking and records management of maintenance activities;
 - (e) safe work practices (e.g., moderation control or exclusion area; radiation or hot work permits); and criticality, fire, chemical, and environmental.
- k. Procedures should be required for operator actions that are necessary to prevent or mitigate postulated accidents identified in the ISA. Provisions should allow for operations to stop and place the process in a safe condition if a step of a procedure cannot be performed as written.

03.02 Temporary Procedures (Inspection Requirement 02.02)

Temporary procedures should be issued only when permanent procedures do not exist to:

- a. direct operations during testing, maintenance, and modifications,
- b. provide guidance in unusual situations not within the scope of permanent procedures, and
- c. provide assurance of orderly and uniform operations for short periods when the facility, system, or component is performing in a manner not covered by permanent procedures.

88201.D-04 RESOURCE ESTIMATE

The resource estimate for completing this appendix is dependent on the specific facility and will be as determined in the PIP for the facility. Details on the resource estimates are identified in IP 88201, Section 04, "Resource Estimate."

88201.D-05 PROCEDURE COMPLETION

Procedure completion is dependent on the specific facility and will be as determined in the PIP for the facility.

88201.D-06 REFERENCES

NUREG-1520, "Standard Review Plan for Fuel Cycle Facilities License Applications," Rev. 2

END

List of Attachments:

Attachment 1: Revision History for IP 88201 Appendix D

Attachment 1: Revision History for IP 88201 Appendix D

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)
	ML25010A401 06/20/25 CN 25-018	Initial issuance. Initial Issue to provide guidance for the Management Measures inspections of Fuel Facilities licensed under Part 70.	N/A	N/A