

NRC INSPECTION MANUAL

RDB

INSPECTION PROCEDURE 71801

DECOMMISSIONING IMPLEMENTATION AND STATUS

Effective Date: 07/01/2025

PROGRAM APPLICABILITY: IMC 2561 A

71801-01 INSPECTION OBJECTIVE

To evaluate the status of decommissioning and verify that the licensee is conducting decommissioning in accordance with regulatory and license requirements.

71801-02 GENERAL GUIDANCE

The purpose of this Inspection Procedure (IP) is to use a risk-informed approach to evaluate the adequacy of the licensee's decommissioning program.

71801-03 INSPECTION REQUIREMENTS AND GUIDANCE

03.01 Status of Decommissioning

Ascertain and assess the status and conduct of facility decommissioning by attending and observing licensee meetings that plan, review, assess, and/or schedule the conduct of facility decommissioning; by discussing with licensee representatives the status of decommissioning activities, problems encountered, and performance insights; and by assessing the licensee's safety culture. Inspectors shall list or otherwise describe significant decommissioning activities since the last inspection in the associated inspection report.

Specific Guidance

The inspector should review ongoing and planned decommissioning activities, management or organizational changes, and the schedule of decommissioning activities as compared to the Post Shutdown Decommissioning Activities Report (PSDAR), 50.82(a)(7) submittals, or License Termination Plan (LTP) schedules. Consider observing a variety of site meetings, including plan-of-the-day management meetings, specific project planning meetings, all-employee meetings, etc.

For decommissioning units in SAFSTOR, review the maintenance backlog and assess the age and risk-significance of the open items. Assess the licensee's work prioritization system to determine whether goals have been established for the completion of items and whether there is a method to bring additional management attention and resources to bear on items on the list that are of risk significance. Determine whether the timeliness of corrective actions (taken or planned) is commensurate with its safety significance.

Identify whether backlog items create operational work-a-rounds or whether system line-ups are different than described in licensing basis documents.

It is expected that discussions or interviews to assess safety culture will be held with both licensee management and staff, across various work groups. It is not intended that inspectors conduct formal interviews solely for the purpose of assessing the work environment; rather, inspectors may leverage discussions with individual members of the licensee's staff concerning other attributes of the inspection. Guidance for these interviews can be found in IP 71152, "Problem Identification and Resolution (PI&R)," Appendix A, "Guidance for Gathering SCWE and PI&R Insights." Specifically, Appendix A to IP 71152 contains a list of questions that can be used when discussing PI&R issues with licensee personnel to help assess whether impediments exist to a Safety Conscious Work Environment (SCWE).

Inspectors should consider meeting with the licensee's Employee Concerns Program manager to understand the licensee's process for addressing employee concerns. The Employee Concerns Program manager will also have knowledge of current concerns and trends associated with safety culture. Employees should feel free to raise safety concerns, both with their management and the NRC, without fear of retaliation. Potential underlying factors that could produce a "chilling" effect or reluctance to report such safety concerns include, but are not limited to, direct retaliation, inadequate staffing that results in excessive overtime, an unwillingness to raise issues that might result in further increases to an already high workload, or inadequate corrective actions for previously identified issues causing personnel to be reluctant to identify additional related issues.

The inspector should use insights gained from activities conducted above to better risk-inform the inspection program. Inspectors should consider the financial aspects of both planned and ongoing work, including which trust fund is being utilized at multi-unit or co-located sites and applicable corrective action program entries that reference improper use of funds. The inspector should also ascertain whether additional inspections are necessary (i.e. IP 40802, "Financial Assurance at Decommissioning Power Reactors.") to assess conditions or decommissioning activities that are different than expected or represent changes in performance or quality and make recommendations to NRC management.

03.02 Implementation of Regulatory and Licensing Requirements

a. Design Changes, Tests, Experiments, and Modifications

Assess the licensee's safety review program to verify the licensee is adequately identifying and evaluating changes to its licensing basis resulting from proposed changes, tests, experiments, and modifications.

Specific Guidance-

If there were no design changes, tests, experiments, or modifications, since the last inspection of this area, no further inspection in this area is necessary. For decommissioning units in Category 1, "Post Operation Transition Phase," as identified in IMC 2561, "Decommissioning Power Reactor Inspection Program," inspect the implementation of 10 CFR 50.59 under IP 37801 in lieu of this requirement. This requirement is applicable to decommissioning units in Categories 2–9, as described in IMC 2561, Appendix A. It is expected that the number of changes rising to the level of

requiring a 50.59 evaluation or license amendment will vary throughout decommissioning, with a large number occurring during the Post-Operation Transition Phase.

Consider performance of a full review under IP 37801 if (1) violation(s) are identified in this area; (2) there is a significant increase in changes, tests, or experiments on-site, particularly when a site shifts inspection categories; and/or (3) technical assistance from regional subject matter experts is desired.

Consider referring to IP 37801-02, "General Guidance," for an overview of 10 CFR 50.59 and its use during decommissioning.

The inspectors should review all 50.59 evaluations and a sampling of 50.59 screenings performed since the last inspection to determine whether the licensee performed the screenings/evaluations in accordance with 10 CFR 50.59. Assess the rigor of engineering and management reviews to determine whether the proposed activities are bounded by the general decommissioning safety evaluation. Consider conducting reviews of risk-significant changes throughout the year reasonably close to when the design change is implemented. Inspectors should not review Independent Spent Fuel Storage Installation (ISFSI) related items, including screenings and evaluations under 10 CFR 72.48.

Risk inform the review by considering whether the licensee adequately evaluated structures, systems, and components (SSCs) shared between units, SSCs related to the safe storage of spent fuel in the spent fuel pool, major decommissioning activities, ventilation or effluent changes, and license termination plan changes.

If there are changes to staffing or responsibilities in performing 10 CFR 50.59 reviews, assess whether staff are appropriately trained to use the 10 CFR 50.59 process.

b. Problem Identification and Resolution

Assess the licensee's effectiveness at reasonably preventing problems, promptly detecting and correcting adverse conditions, and performing assessments of adverse conditions.

Specific Guidance

Additional guidance can be found in IP 71152, "Problem Identification and Resolution (PI&R)." Note that the requirement to maintain a corrective action program (CAP) during decommissioning still applies absent an exemption. However, the number of SSCs that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public significantly decreases after shutdown, and continues throughout decommissioning. 10 CFR Part 50 Appendix B continues to apply to those SSCs associated with programmatic controls pertaining to residual radioactivity, security, quality assurance, and those SSCs associated with spent fuel assemblies or the spent fuel pool (while assemblies remain in the spent fuel pool), and ISFSIs. On a generic basis, radiation protection procedures are not covered under 10 CFR Part 50 Appendix B. In practice, the NRC expects the use and rigor of a licensee's CAP to continue in a similar fashion to that for an operating nuclear power plant, maintaining its status as a credited corrective action program for NRC enforcement determinations.

Consider attending one or more corrective action review meetings, or equivalent. To review the implementation of the corrective action program, the inspector should review all apparent and root causal evaluations completed since the last inspection related to risk-significant items and sample any other lesser evaluations of interest. Additionally, the inspector should determine if the proposed and enacted corrective measure adequately addressed the original issue.

For decommissioning units where licensees are conducting significant activities, including those in the post-operation transition phase or in the active decommissioning phase, request and review corrective action program documentation on a regular basis to inform current and future inspection efforts. The intent of screening a large amount of CAP entries is for inspectors to be alert to conditions such as repetitive, long-term, or latent equipment failures or radiation protection issues that might warrant additional follow-up. Follow up on any specific CAP entry should be conducted under the appropriate IP. Inspectors should review all corrective action program entries that are classified as significant conditions adverse to quality and all licensee event reports.

Contractor CAPs do not qualify for the licensee's requirement to have a CAP. In all cases, contractors must have a mechanism that permits them to raise safety concerns to licensee management and enter issues of concern into the licensee's CAP. If applicable, inspectors should assess the effectiveness of a contractor's ability or process to be able to have their concerns or issues entered into the licensee's CAP.

c. Other Licensing Basis Documents and Regulatory Requirements

Verify that the licensee is conducting decommissioning in accordance with regulatory and license requirements by sampling one or more licensing basis documents or regulatory requirements (as listed below) to ensure they were met.

Specific Guidance

This inspection requirement is appropriate for review of those regulatory and licensing requirements that are not otherwise covered in this procedure or in other IPs. The purpose of this section is to provide a flexible level of inspection effort for items not otherwise specifically covered. Inspectors are encouraged to review past inspection reports and consider current plant conditions and risk-significant issues while selecting the scope of this review. Consider the following when selecting the scope of this review:

1. Implementation of the LTP (if applicable) and any recent changes.
 - (a) The LTP is incorporated as a license amendment; as such, requirements and commitments made in the LTP are required to be met. Changes to the LTP can be made without prior NRC approval so long as the change is consistent with the terms specified in the license. Inspectors should review changes made to the LTP that were conducted without a license amendment to verify that those assessments were adequately performed, and NRC approval was not needed.
 - (1) Review the criteria in the NRC license for allowable changes. Refer to NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans," for the basis of such criteria.

- (b) Inspectors should review the approved LTP to identify what the licensee committed to following for conducting final status surveys. Note that licensees may commit to NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)." For specific technical guidance for the implementation of MARSSIM, inspectors may review NUREG 1757, Volume 2, Rev. 2, "Consolidated Decommissioning Guidance: Characterization, Survey, and Determination of Radiological Criteria," and NUREG 1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions."
- 2. Perform a review of the licensee's 10 CFR 50.75(g) file.
 - (a) Review the centralized physical or electronic location of the file. Facility operating procedures should clearly identify the need for and responsibility for collecting, maintaining, updating, and retrieving these decommissioning records. If discrepancies are identified, the inspector should consider whether the information in the 10 CFR 50.75(g) file is incorporated into the licensee's planning documents and procedures. If a spill is identified on-site, the inspector's review should be under IP 84750.
- 3. Review the implementation of the licensee's quality assurance program.
 - (a) The licensee's Quality Assurance (QA) program will be described in facility specific documents (e.g., Quality Assurance Program Description (QAPD) or Quality Assurance Topical Report (QATR)). These documents describe in detail how the facility will satisfy 10 CFR Part 50 Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," requirements and may describe additional commitments, Part 21 reporting guidance, non-safety-related quality controls, and details of independent reviews. Inspectors should review these program documents to the extent that the inspector is aware that the procedures and SSCs are relevant to the QA program at the decommissioned facility.
 - (b) Audits and assessments that are performed to address specific regulatory requirements, such as those required per 10 CFR 50.48(f)(2), "Fire Protection," or 10 CFR 20.1101, "Radiation Protection Programs," should be reviewed when performing the applicable IP that assesses these programs, as opposed to this procedure. Other audits and assessments should be sampled for review while considering variety. The inspector should review the licensee's tracking and handling of audit findings to determine whether the finding resolutions are timely and focused on correcting the cause(s) of any identified deficiencies.
 - (c) If contractors are onsite performing work that falls within the scope of the licensee's QA program, verify that the contractors are using the licensee's QA program or have their own QA program that the licensee approved.
- 4. Review the implementation of other license commitments and conditions.
 - (a) When a licensee begins decommissioning, the technical specifications are updated to defueled technical specifications via license amendment. This is one of the ways to reflect the decommissioning status of the power reactor. Later, the technical specifications are typically updated to reflect the ISFSI only status.

Also, consider technical specifications not covered under other IPs (i.e., spent fuel pool safety is reviewed under IP 60801).

- (b) The inspector should consider reviewing training requirements and qualification requirements if deficiencies are found in program implementation or when a change in staffing has occurred. Consider any commitments in site technical specifications and requirements under 10 CFR 50.120, "Training and qualification of nuclear power plant personnel."

71801-04 RESOURCE ESTIMATE

The required number of direct inspection hours for this inspection procedure will vary significantly as described in IMC 2561. IMC 2561 contains a discussion of the expected inspection frequency and resource estimates during each phase of decommissioning and should be used when planning resources to conduct this inspection.

71801-05 PROCEDURE COMPLETION

Inspection procedure completion is based on completion of the inspection procedure requirements at the frequency specified in IMC 2561, Appendix A. The inspector is not required to complete all the inspection requirements listed in the IP nor is the inspector limited to those inspection requirements listed. This IP is complete when the inspector has sufficiently reviewed the licensee's performance commensurate with the level and risk-significance of site activities and the objective of this procedure has been met.

71801-06 REFERENCES

"Radiological Criteria for License Termination," 10 CFR Parts 20, 30, 40, 50, 51, 70, and 72, *Federal Register*, Vol. 62, pp. 39058-39092 (62 FR 39058), July 21, 1997

NRC Regulatory Guide 1.184, "Decommissioning of Nuclear Power Reactors," Revision 1, issued July 2000, Washington, DC, Agencywide Documents Access and Management System (ML003701137)

NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)." EPA 402-R-97-016, Rev. 1, DOE/EH-0624, U.S. Department of Defense (DoD), U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and NRC, Revision 1, issued August 2000, Washington, DC., (ML003761445)

NRC Regulatory Issue Summary 2002-02, "Lessons Learned Related to Recently Submitted Decommissioning Plans and License Termination Plans," issued January 16, 2002, Washington D.C., (ML013510432)

NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volume 2, Characterization, Survey, and Determination of Radiological Criteria, Revision 2, issued July 2022, Washington, D.C., (ML22194A859)

END

Attachment 1: Revision History for IP 71801

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)
	None 8/11/97 CN 97-012	Original issuance.	None	N/A
	ML20240A293 09/30/20 CN 20-045	Major revision for 1) periodic update to provide additional decommissioning inspection guidance and lessons learned, 2) to delete obsolete or rarely used instructions and materials, 3) to add additional references and definitions 4) to combine the overlapping financial review information in IP 36801 into IP 71801 and 5) to address recommendations from Reactor Decommissioning Financial Assurance Working Group Final Report, issued May 1, 2020, ADAMS Accession No. ML20120A550.	None	ML20240A292
	ML25139A099 06/27/25 CN 25-022	Major revision for 1) to reduce duplication in inspection procedures, 2) to relocate PI&R and safety culture inspection requirements from IP 40801, 3) moved the financial assurance review to the new discretionary procedure IP 40802, and 4) to apply lessons learned and apply additional risk-informed decommissioning guidance. IMC 0040 exception granted to bold inspection requirements.	None	N/A