

INSPECTION OF REMEDIAL AND FINAL SURVEYS AT PERMANENTLY SHUTDOWN REACTORS

PROGRAM APPLICABILITY: IMC 2561 A

83801-01 INSPECTION OBJECTIVES

01.01 To verify that permanently shutdown power reactor sites have been decontaminated to acceptable residual radioactivity levels in accordance with the License Termination Plan (LTP) requirements for unrestricted or restricted use, as specified in Subpart E, "Radiological Criteria for License Termination," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20, "Standards for Protection Against Radiation."

01.02 To verify that the licensee's implementing procedures, radiological measurements, decommissioning surveys, and documentation of decommissioning surveys comply with the submitted or approved LTP.

01.03 To conduct sufficient confirmatory surveys and to collect an adequate number of samples so that the inspector and NRC staff can conclude that the licensee's decommissioning activities and survey program have been implemented in a manner that provides confidence in the results.

83801-02 INSPECTION REQUIREMENTS

02.01 Remediation Activities and Transition to Final Status Survey (FSS)

Inspection of remediation activities should include reviews of procedures that govern sample chain-of-custody, access control to future FSS areas, survey data collection and data management, quality control surveys, and records retention and management requirements. Instrumentation calibration and survey methods should also be evaluated to verify (1) measurements are meeting the required percentage of the area to be surveyed, (2) instrument scan sensitivity, and (3) direct survey or sampling requirements are appropriate to the survey unit classification.

Inspection activities should evaluate the licensee's Remedial Action Support Surveys (RASS) completion and that the prerequisite activities required for FSS have been performed. During this evaluation, the inspector should review the procedures and performance of RASS.

02.02 Final Status Surveys

Final status survey (FSS) inspections should be made against commitments in the site's License Termination Plan (LTP) and the licensee's FSS program, including any changes to the

LTP approved by the NRC. Although not common, if items for further or future review were identified in the Safety Evaluation Report (SER) that supported LTP approval, the inspector should also verify that these items are addressed.

In addition, as part of the overall document review, the inspector should evaluate changes made to the LTP that did not require prior NRC approval to ensure that the changes were made in accordance with acceptable change control requirements.

Inspection of a licensee's FSS program may include independent in-process or confirmatory measurements by the inspector or an NRC contractor. The extent of the confirmatory measurements, and whether the use of an NRC contractor is warranted, is at the discretion of the NRC, and depends on several factors discussed in Section 03.03 below.

For each inspection, the inspector should identify which inspection areas and activities listed below are covered and create an inspection plan accordingly.

02.03 In-Process and Confirmatory Surveys

The "in-process" survey inspection is intended to provide confidence that the licensee's survey results are accurate and representative of the conditions at the facility. The inspector should review any license conditions related to prerequisite activities for performing the RASS and FSS in the LTP. In addition, review the licensee's final status survey design packages, and/or survey reports, as applicable.

In general, inspection activities for completed FSS may include the collection of confirmatory samples or survey measurements to provide confidence that the licensee's FSS program is adequate. These surveys may be in addition to the findings of the in-process survey inspection. The confirmatory surveys are performed to ensure that the survey results reported by the licensee are accurate and representative of the conditions at the facility.

83801-03 INSPECTION GUIDANCE

General Inspection Preparation

- a. Inspectors and project managers should consider the following issues in considering the overall decommissioning project. Sites that have experienced any of the following may require more oversight and inspection during decommissioning until a proven performance track record is established. The increased oversight may include more extensive in-process or confirmatory surveys to be performed during decommissioning activities.
 1. Significant weaknesses in the site corrective action program, safety culture, and management oversight.
 2. Unresolved weakness in the radiation protection, characterization, or final status survey programs, or repetitive radiation protection or final status survey violations.
 3. Licensee performing final status surveys prior to approval of the LTP and FSS Plan. Increased oversight is warranted where the licensee has weaknesses in complying with the LTP as submitted for approval.
 4. Partial site releases that include impacted areas.

5. Records of spills or unusual occurrences involving the spread of contamination during decommissioning activities at the site.
 6. A history of releases with higher levels of radioactivity, such as hot particles.
 7. Allegation history.
 8. Significant stakeholder concerns, especially Congressional interest.
 9. Increased oversight is warranted where the licensee uses new radiation detection or measurement technologies or applies established technologies in new ways.
 10. Increased oversight is warranted where the licensee has proposed new methodologies outside established NRC guidance (NUREG 1757 series Consolidated Decommissioning Guidance) for performing surveys, sampling or statistical approaches to demonstrating compliance.
- b. The inspector should review licensee records for the types of radioactive materials expected to be present, occurrence of any significant safety issues during the operation or decommissioning of the facility, and any special concerns about the site expressed by the headquarters project manager (PM), NRC staff, or other stakeholders.
 - c. The inspector should review the licensee's Historical Site Assessment, Scoping and Characterization Reports, and LTP to determine the scope of facility contamination and the licensee's decontamination, remediation survey, and FSS programs. If the licensee does not have an approved LTP, the inspectors should review the licensee's procedures for performing these tasks and discuss them with the headquarters PM and health physicist to ensure their adequacy to eventually meet the applicable license termination requirements. Without an approved LTP that establishes the permissible residual radioactivity levels, the licensee is at risk while performing remediation and FSS activities. In the absence of approved Derived Concentration Guideline Levels (DCGLs) or other established clean-up criteria, power reactor licensees must ultimately demonstrate compliance with the criteria for license termination, as specified in 10 CFR 20, Subpart E "Radiological Criteria for License Termination."
 - d. The inspector, in conjunction with the headquarters PM and health physicist, should consider the following when planning inspection surveys:
 1. In areas where in-process surveys were not conducted, or samples were not collected, confirmatory surveys and sampling may be performed after the licensee has completed decontamination activities and performed the FSS.
 2. Sites where in-process surveys and sampling have not identified significant weaknesses in the FSS program may not require confirmatory surveys, and sampling may not be required in low risk survey units, non-impacted areas, or Class 3 areas. However, confirmatory surveys may be deemed necessary in all survey units (Class 1, 2, 3) for sites where unresolved radiological program weaknesses were previously identified or where repetitive violations have occurred.
 3. Confirmatory surveys should be considered where there is historical information of spills or unusual occurrences involving the spread of contamination at the site and higher risk areas such as Class 1 and 2 areas.
 4. Confirmatory surveys should be considered in any survey unit where the licensee is planning to backfill the area with clean fill dirt after remediation activities are complete. While MARSSIM applies to surface soils (not greater than 15 cm or 6 inch depth), inspectors need to ensure the residual activity in bottom and sides of the excavation have been completely remediated by surveying throughout the

excavation and ensuring residual radioactivity has been remediated at depths greater than 15 cm. It should be noted that based on the radionuclides of concern, the surface surveys may only be applicable at depths less than 15 cm. Attention should be paid to the licensee's backfill schedule to ensure that confirmatory surveys can be completed while the area remains accessible.

Types of Decommissioning Surveys:

a. Scoping Surveys (Licensee Performed)

Scoping surveys are defined as those surveys that are performed by the licensee to augment the historical site assessment (HSA) in areas with the potential for residual radioactive contamination. Scoping surveys are used to provide input into characterization survey design and support appropriate classification of the impacted areas of the site.

b. Characterization Surveys (Licensee Performed)

Characterization surveys are defined as those surveys that are performed by the licensee prior to any soil remediation or structure dismantling and decontamination activities to determine the extent and types of contamination at the site. Characterization surveys are performed to support HSA conclusions, and to establish a plan to conduct remediation activities and design an FSS program. Inspectors should consider performing surveys and sampling to confirm licensee identification and accuracy of radionuclides detected and concentrations.

c. Remedial Action Support Surveys (Licensee Performed)

RASS are defined as those surveys that are performed by the licensee after soil remediation activities or structure dismantling and decontamination activities have been completed. RASS are performed to support remediation activities, as a pre-requisite to verify that the area has been properly decontaminated and prepared for the FSS to be implemented, and to provide data for planning the FSS. RASS typically include verification that there is no significant contamination-at-depth either in soil or in structures, cracks, crevices and floor-wall interfaces, and that there is no significant loose surface contamination on structures. Inspectors may consider performing surveys and sampling to confirm licensee findings of remedial action support surveys, including contamination-at-depth in soil, structures such as concrete and cracks, and crevices and floor-wall joints.

d. Final Status Surveys (Licensee Performed)

FSS are performed by the licensee following the completion of decontamination activities in preparation for release. The FSS is typically conducted to demonstrate that the potential dose from residual radioactivity is below the release criterion for each survey unit per the LTP. This demonstration is often achieved through the usage of DCGLs, though either a dose assessment approach or a DCGL approach is acceptable if approved by the NRC staff.

As such, an FSS may utilize either DCGLs or a value associated with a dose assessment approach (both of which should be consistent with the approved LTP).

Additional information on the two compliance approaches can be found in the NUREG-1757 series (Consolidated Decommissioning Guidance). Additionally, there may be situations where residual radioactivity in a survey unit is indistinguishable from background, in which case an action level approved in the LTP would be used as the compliance value. For simplicity, the remainder of this procedure discusses only DCGLs as the compliance approach.

e. In-Process Verification Surveys (NRC Performed)

The NRC's in-process surveys are typically conducted simultaneously with the licensee's activities. The in-process surveys may be conducted either during or prior to completing remediation activities to assess the licensee's progress in preparing for FSS or may be conducted during the licensee's performance of FSS to verify that the licensee is performing radiological measurements consistent with the licensee's radiological procedures and the LTP. Inspectors should note that licensees may perform certain decommissioning activities and surveys, as permitted by regulations and the license, prior to the approval of the LTP. Any activities performed prior to the approval of the LTP are considered "at the licensee's risk" and may warrant additional inspection oversight and in-process surveys. Once the LTP is approved, it is a license requirement for compliance.

The inspectors should collect side-by-side, split samples, or arrange for additional NRC sampling with the licensee for comparative purposes and should compare in-field instrument readings and sensitivities. In the additional NRC sampling approach, the samples are collected in the presence of the inspector, counted by the licensee, and the inspector sends the samples to the NRC contracted laboratory for analysis using the appropriate chain-of-custody. In addition to split-sampling, another method to validate the licensee's laboratory capability, is for the inspector to have the NRC's independent laboratory count samples previously collected and analyzed by the licensee

NOTE: NRC lessons-learned and experience has shown that the in-process approach may result in significant savings in cost, assured more accurate surveys, and has had less impact on the licensee in maintaining survey unit accessibility for NRC inspectors.

f. Confirmatory Surveys (NRC Performed)

Confirmatory surveys are typically performed after the licensee has completed their radiological survey measurements to validate the licensee's procedures, findings and results of scoping, characterization, RASS, or FSS surveys and sampling activities. Confirmatory surveys are performed to validate the licensee's survey program and to provide assurance that the survey unit meets residual radioactivity levels for release. These surveys may be performed by the NRC staff or NRC's independent contractor under supervision of the inspector or NRC HQ staff. It is important to plan the inspection to coordinate the effort as noted in Section 03.03. This is especially important, where the licensee intends to backfill excavated survey units.

03.01 Inspection of Remediation Activities and Transition to Final Status Survey (FSS)

- a. Review the radiation technician / surveyors training and qualification records to ensure compliance with license requirements and the LTP.

- b. Verify that field screening methods and instrumentation can detect residual radioactivity at the DCGL_w¹, and that methods are consistent with the LTP.
- c. Review the method for determining the background radioactivity level for the survey and verify that the method is consistent with the LTP.
- d. For remnant structures, review the procedures for performing surveys that determine contamination-at-depth in cracks, crevices, and floor wall interfaces. Evaluate the licensee's surveys or samples taken to verify that remnant structures were remediated to the appropriate depth.
- e. For remnant structures, review the surveys that determine the loose surface contamination is less than 10 percent (or other percentage consistent with the LTP or dose modeling) of the total residual radioactivity.
- f. For soil areas, review the surveys that demonstrate that the areas were remediated to the appropriate depth and verify that groundwater considerations have been evaluated and considered, as appropriate, as part of the FSS plan.
- g. If automated measurement systems are employed, a review of the licensee's technical bases documents, including calculations, validation tests, and software verification, may be performed. These systems may include portable in-situ gamma spectroscopy systems, conveyor-based monitors, bulk monitors, etc.
- h. Ensure access and cross contamination control measures were followed for areas where FSS have been completed. Ensure that programs exist to detect any recontamination.
- i. Verify that appropriate re-survey protocols were followed for any areas that underwent remediation during or after an FSS, or for survey units that failed a statistical test for compliance. Ensure that re-surveys are performed in accordance with the LTP and/or applicable NRC guidance.
- j. The inspector should also review the licensee's investigation level and investigation process as described in the survey documents related to RASS and FSS. The investigation level is a radionuclide-specific concentration or activity level of radioactivity that: (1) is based on the release criterion, and (2) triggers a response, such as further investigation or cleanup, if exceeded. It is considered the level below which there is an acceptable level of assurance that the established DCGLs have been obtained. Appropriate use of the investigation level supports survey decisions that are consistent with the intent of MARSSIM in that the investigation level indicates when additional investigations may be necessary in a survey unit. The inspector should verify that the chosen investigation levels associated with each DCGL are reasonable and in accordance with the LTP, and that surveys are being conducted in accordance with the program.

¹ A DCGL for the average residual radioactivity in a survey unit.

03.02 Final Status Surveys

- a. Review the organization and personnel responsibility requirements for adequacy and completeness in the following areas:
 - 1. Survey program documentation
 - 2. Responsibilities and qualifications of the survey staff
 - 3. Implementation of relevant LTP, FSS program, and facility procedure changes in accordance with 10 CFR 50.59 or 10 CFR 72.48
- b. Review the quality assurance and/or quality control (QA/QC) program requirements for adequacy and completeness in the following areas:
 - 1. Organizational structure
 - 2. QC surveillance program
 - 3. Document control and records management programs
 - 4. Equipment maintenance and control program
 - 5. Audits and corrective action program
- c. Determine if the laboratory analytical procedures, sample chain-of-custody procedures, and data management procedures (including QA/QC) are acceptable, and if the results are adequately documented.
- d. Determine if the licensee's survey implementation procedures are consistent with the LTP and FSS plan.
- e. Determine if the field and laboratory instrumentation are adequate and appropriate for scanning, direct measurements, and analysis for the radionuclides of concern (ROCs), the DCGLs, and the DCGL-Elevated Measurement Comparison (DCGL_{EMC}).
- f. Determine if instrument calibration accounts for the ROCs.
- g. Review the adequacy of the ROCs, area classification, survey unit size, estimated mean and standard deviation for samples, as well as the appropriateness of the background measurements taken for each survey unit or classification area.
- h. Ensure the number of samples taken by the licensee were appropriate and consistent with MARSSIM methods or otherwise approved in the LTP. Any adjustments to the number of samples must also include an evaluation of the Scan MDC limitations.
- i. Review the methods used to address the impact of multiple ROCs in FSS planning, as well as the methods to address hard-to-detect (HTC) radionuclides.
- j. Review instrument use procedures and/or associated documentation to determine the following:
 - 1. Minimum detectable concentration (MDC) and scan MDC calculations
 - 2. Actual versus required scan sensitivity
 - 3. Calibration, including accounting for multiple radionuclides and any environmental factors that may influence instrument performance, such as temperature limitations or moisture concerns

- k. Review project documentation for completeness, accuracy, and verify that it represents current radiological conditions relative to the DCGLs.

03.03 Conduct of In-Process and Confirmatory Surveys

- a. The inspector and project manager should determine if in-process or confirmatory surveys are to be performed, and to what extent. Extensive in-process or confirmatory surveys should be considered if any of the following exist:
 - 1. Significant, unresolved weaknesses identified during the inspection of the licensee's final status survey program
 - 2. Repetitive radiation protection violations
 - 3. Partial site release of impacted areas
 - 4. Records of spills or unusual occurrences involving the spread of contamination during decommissioning activities at the site
 - 5. A history of releases with higher levels of radioactivity, such as hot particles

The inspector should also consider a general review of records maintained under 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," Section (g), especially regarding records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site.

NOTE: Additional considerations for conducting a more detailed technical review for a survey unit can be found in NUREG-1757, Volume 2, Section 4.5.3.2.

- b. Select survey units / areas for confirmation of the following:
 - 1. Determine adequate scan coverage based on classification
 - 2. Review the analytical procedures for appropriateness for measuring the ROCs, the DCGL, and the DCGL_{EMC}
 - 3. Cross-check FSS data packages against the FSS plan requirements
- c. Inspections should be biased toward the conduct of surveys and the review of documents from survey areas classified as Class 1 as a higher priority than Class 2 or 3, per the guidance contained in NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)." The inspectors should also ensure that survey units have been properly classified or re classified as a result of decommissioning activities.
- d. For soil sampling, determine sampling depth requirements and sampling intervals. At a minimum, samples should be collected from anomalous or other judgmental areas, together with selected licensee-archived samples, for confirmatory analysis. The necessity for, and the specific numbers of, other random / systematic samples should be separately evaluated, using the Data Quality Objectives (DQO) process.
- e. For structure surfaces, perform direct measurement surveys or sampling to determine contamination-at-depth in cracks, crevices, and floor wall interfaces.
- f. Evaluate each anomaly identified during in-process or confirmatory surveys for compliance with the LTP Survey Plan requirements, the DCGL, and the DCGL_{EMC}. For each anomaly, determine the following:
 - 1. Is it acceptable relative to size and concentration?

2. Has the licensee adequately addressed it?
 3. Is it within the bounds of the survey unit classification?
- g. If in-process or confirmatory surveys are to be performed, determine if an NRC contractor should be used. Meeting any of the criteria listed below will, in general, justify the use of an NRC independent contractor:
- Licensee's FSS involves unique or complex technical issues (contaminant in background, core borings, pipe surveys, hard-to-detect nuclides),
 - Confirmatory survey activity is expected to require more than one person-week of effort to complete field surveys and sampling,
 - The inspection will involve a large number of survey units or large structures or land areas to be surveyed,
 - Confirmatory survey is a very high priority project that cannot be completed by NRC staff in a timely manner,
 - NRC staff lack the equipment required to perform the surveys or sampling, and specialty equipment is required (concrete core bores, sub-surface soil sampling), or
 - The site has Congressional, significant State, local government or non-government organization interest.
- h. If it is determined that an NRC contractor should be used to perform independent verification surveys, the inspector should discuss with the project manager to obtain agreement. The inspector and project manager should obtain agreement from their respective Branch Chiefs. Upon agreement, the project manager will develop a Request for Technical Assistance (RFTA) for approval by the Branch Chief to obtain the contractor services. The NRC Contracting Officer Representative (COR) will direct the contractor to obtain the requested services in accordance with the NRC Contract. The contractor will develop a survey plan for inspector and project manager approval for use during the inspection.
- i. The inspector should develop an inspection plan outlining the types of measurements needed, the samples to be taken, the survey units to be surveyed, and the documents to be reviewed. For confirmatory surveys, the inspection plan should include a survey plan that is consistent with the data quality objectives contained in the licensee's approved LTP or FSS plan, survey unit classification, and media sampling and survey methods. For confirmatory surveys to be performed by a contractor, the contractor would be responsible for preparation of the survey plan.

83801-04 RESOURCE ESTIMATE

The direct onsite inspection hours required to complete this procedure depend on the complexity of the facility and the duration of the licensee's remediation and final survey program. For facilities needing a significant final survey effort, approximately 20 to 40 inspection hours will be needed to complete the inspection of each soil or building survey unit. For facilities with less complex or significant final survey efforts, approximately 10 to 20 inspection hours will be needed to complete the inspection of each soil or building survey unit.

- a. Based on the characterization data and other information provided by the licensee during decommissioning, the headquarters PM, the health physicist, and the inspector

should determine in advance the level of effort to be employed to collect sufficient data and information that will allow the staff to confirm that the licensee has met the residual radioactivity requirements. Table A below provides recommendations for focusing the inspection effort during various phases of decommissioning, and references sections from NUREG-1757, "Consolidated Decommissioning Guidance," Volume 2.

- b. Inspections at facilities where the NRC in-process or inspector spot-checking licensee surveys have not identified significant weaknesses in the facility's radiation protection program implementation or deficiencies in the FSS program and FSS report may not require additional complete verification confirmatory surveys after completion of the licensee's FSS. A determination on the need for additional confirmatory surveys is made by the headquarters PM in consultation with the regional inspection staff and health physics technical experts. In this case, the decisions should be based on licensee performance, safety evaluations report requirements and stakeholder concerns.

Table A – Recommended Inspection Focus

<u>Licensee Activity</u>	<u>NUREG-1757 Volume 2 Guidance</u>	<u>Inspection Purpose</u>	<u>Inspection Process</u>
Dismantling and Decontamination in Support of Remediation Activities, Scoping and Characterization Surveys.	Section 4.2 – Validate data consistency with licensee's characterization surveys.	Ensure health and safety of remediation workers and public.	NRC Inspection Manual Chapter 2561, "Decommissioning Power Reactor Inspection Program," and NRC Inspection Procedure 83750, "Occupational Radiation Exposure."
Remedial Action Support Surveys.	Section 4.3 – Verify area is prepared for FSSs and validate the FSS design.	Ensure areas are prepared for FSS. Focus should be on high risk Class 1 survey units with known contamination and Class 2 survey units where there may have been minor contamination.	Observation of licensee surveys and survey records for compliance with LTP survey requirements. Inspector should perform independent measurements and sampling to verify licensee's procedures.

<u>Licensee Activity</u>	<u>NUREG-1757 Volume 2 Guidance</u>	<u>Inspection Purpose</u>	<u>Inspection Process</u>
Characterization surveys intended by the licensee to be FSS prior to the approval of the LTP.	Section 2.3, 4.2 and 4.4 - Validate the areas were characterized by the licensee consistent with the appropriate surveys and sampling based on the survey unit to qualify as an FSS.	Ensure the licensee has procedures implemented to prevent the potential recontamination of the area.	Observe licensee surveys or the inspector should perform independent surveys of the areas to confirm the licensee finding.
Radiological surveys performed by the licensee intended to meet final status survey requirements prior to the approval of the LTP.	Section 4.4 – Validate the surveys and sampling will meet the requirements of a FSS.	Ensure the licensee has procedures implemented to prevent the potential recontamination of the area.	Since the DCGLs have not been approved, inspectors should perform confirmatory surveys of all Class 1 and Class 2 survey units. A selection of Class 3 areas should be performed to validate the licensee procedures for Class 3 surveys.
FSS In Progress per approved LTP.	Section 4.4 – Validate FSS design and performance.	Verify compliance with the FSS design approved in the LTP (as applicable).	Observation and inspection of licensee surveys and performance of NRC in-process surveys.
FSS Completed per the approved LTP.	Section 4.4 – Validate FSS design and performance.	Verify compliance with the FSS design approved in the LTP (as applicable).	Inspector to conduct confirmatory surveys to validate the licensee conclusions.
FSS Completed.	Section 4.4 – Verify FSS residual radioactivity levels.	Verify compliance with the FSS requirements approved in the LTP (as applicable).	Performance of NRC confirmatory surveys and review of licensee survey records.
FSS Reports Reviews.	Section 4.5 – Verify FSS report requirements.	Verify compliance with the FSS reporting requirements approved in the LTP (as applicable).	Review of licensee survey records, and results of NRC in-process or confirmatory surveys, for agreement with licensee conclusions.

83801-05 PROCEDURE COMPLETION

Inspection Report

- a. The inspector will prepare an inspection report that summarizes the actions taken under this inspection procedure and the findings and evaluations of the inspection staff. The report should include or reference any NRC contractor reports documenting the in-process or confirmatory surveys performed during the inspection period.

- b. The FSS reports are the licensee's demonstration that the residual radioactivity levels remaining in each survey unit meet the DCGLs in the LTP. The inspection report includes a summary of the NRC in-process and confirmatory survey results, documents the licensee's FSS results, and is part of the basis for the staff's finding that the licensee has met the release criteria approved in the LTP, which is used as part of the basis for NRC approval of license termination. The inspection report should have a level of detail consistent with the complexity of the surveys, sample data collected, and classification of the areas surveyed.

83801-06 REFERENCES

NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)"

NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans"

NUREG-1757, Volume 2 "Consolidated Decommissioning Guidance"

NRC Inspection and Enforcement (IE) Circular No. 81-07, "Control of Radioactively Contaminated Material"

END

Attachment 1 – Revision History for IP 83801

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Accession Number (Pre-Decisional, Non-Public Information)
N/A	08/11/97 CN 97-012	IP 83801 (Inspection of Final Surveys at Permanently Shutdown Reactors) has been revised to be consistent with the dose-based criteria used in the license termination rule and MARSSIM guidance. The previous guidance was NUREG-5849, which was based on concentration limits. Therefore, to comply with 10 CFR 20 Subpart E, the licensee needs to do a dose analysis and follow MARSSIM guidance; the procedure has been updated to reflect the appropriate changes.	None Required	None
N/A	01/28/02 CN 02-003	Incorporated updated MARSSIM guidance.	None Required	None
N/A	09/05/06 CN 06-020	Major revision incorporating lessons learned from the decommissioning of Maine Yankee and Trojan.	None Required	ML061090058
N/A	ML15202A331 07/26/16 CN 16-018	The procedure was updated to address content and format changes, and reflect additional lessons learned from ongoing decommissioning activities.	None Required	ML16117A246
N/A	ML19322C630 11/26/19 CN 19-038	Appendix A incorporated into the procedure body, Clarified use of Contractor for verification surveys.	None Required	ML19324C789