# NRC INSPECTION MANUAL

#### **INSPECTION PROCEDURE 87104**

#### DECOMMISSIONING INSPECTION PROCEDURE FOR MATERIALS LICENSEES

#### Effective Date: 12/30/2022

#### PROGRAM APPLICABILITY: IMCs 2602 and 2800

- 87104-01 INSPECTION OBJECTIVES
- 01.01 To determine if licensed decommissioning activities are or were being conducted in accordance with U.S. Nuclear Regulatory Commission (NRC) requirements as specified in individual licenses and regulations.
- 01.02 To verify the licensee's materials decommissioning program is implemented in a manner to ensure the safety and health of workers, the public and protection of the environment.

#### 87104-02 INSPECTION REQUIREMENTS

Conduct performance-based inspections with an emphasis on risk-significant activities that have an impact on safety and the environment. As described in IMC 2602, risk modules (RMs) are program areas that have been determined to be important to reducing risks at decommissioning materials facilities. RMs help focus inspection efforts of those site activities that are most likely to impact the health and safety of occupational workers, the public, and/or the environment. Inspection time and effort should be concentrated on the RMs described in the following paragraphs.

#### 02.01 Observation of Decommissioning Activities (RM-01)

Observe one or more ongoing or completed activities that require written procedures, work plans, hazards assessments or radiation work permits (RWPs), such as building survey, decontamination or demolition, waste packaging and loading of radioactive waste for transport offsite, and/or soil and groundwater sampling or remediation. Chemical and industrial hazards may be encountered during decommissioning, inspectors should identify hazards and review licensee commitments in license documents and reference documents such as Material Safety Data Sheets to familiarize themselves with the potential hazards onsite.

#### 02.02 Occupational Radiation Protection (RM-02)

Assess trends in radiation protection program performance, such as increases in occupational exposures. Assess the implementation of ALARA principles in the radiation protection program.

#### 02.03 Security and Control of Radioactive Materials (RM-03)

Observe the licensee's security and control of radioactive materials with particular emphasis on storage of radioactive waste.

#### 02.04 Waste Generation, Storage and Transportation (RM-04)

Verify the licensee has transferred or disposed of licensed material in accordance with NRC requirements. Review waste packaging, storage, loading, and transportation activities onsite and any associated records based on these activities since the last inspection.

#### 02.05 Public Dose, Effluent Releases and Environmental Monitoring (RM-05)

Verify that the licensee is implementing a radiation protection program that ensures radiation dose levels and effluent releases in unrestricted areas did not exceed the limits set in Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1301, "Dose limits for individual members of the public," and 20.1302, "Compliance with dose limits for individual members of the public," during decommissioning. Observe the condition of at least one environmental monitoring location and one effluent location unless decommissioning has progressed to an extent that environmental and effluent monitoring are no longer required by license condition or regulatory requirement. Observe the collection of samples from these locations or request the licensee demonstrate the sample collection process. Assess trends in effluent and environmental monitoring, including groundwater monitoring.

#### 02.06 Management Organization and Controls (RM-06)

Review facility changes, tests and experiments as authorized by the license. Verify the licensee has implemented the appropriate programs for management oversight and control of decommissioning activities.

#### 02.07 Final Status Surveys (FSS) (RM-07)

If final status radiological surveys are being conducted and completed by the licensee, refer to Inspection Procedure (IP) 83890, "Closeout Inspection and Survey," for additional information on the review of the FSS.

#### 87104-03 INSPECTION GUIDANCE

This IP applies to materials sites undergoing decommissioning in accordance with the guidance of NUREG-1757, *Consolidated Decommissioning Guidance*, Volumes 1-3. As discussed in NUREG-1757, Volume 1, decommissioning activities are commonly categorized in Groups that depend on the type of operation and the residual radioactivity. In general, Groups 1 and 2 decommissioning projects do not require a decommissioning plan (DP), while Groups 3 and above require a DP. The guidance provided in this IP may be used for any decommissioning group, but the inspector should be aware that the risks associated with decommissioning vary by group. During the early stages of decommissioning, the risks associated with worker protection (internal or external radiation exposure, industrial or chemical hazards) may be more prevalent than the later stages of decommissioning. The risks towards the end of decommissioning are related to conduct of the FSS (trip/fall hazards, snake bites).

In addition, the inspector can use the instructions provided in this IP, in conjunction with IP 83890, to determine if decommissioning activities were conducted in accordance with NRC requirements as necessary to support the termination of the license.

Many decommissioning inspections will be similar to operations-related inspections conducted before the licensee ceased principal activities. In these early stages of decommissioning, the inspection should review all IPs that were applicable to the licensee's operational program and select those procedures that should be carried over to the licensee's decommissioning program. The inspector's selection of these operating procedures for use as discretionary procedures should be informed by the licensee's progress with decommissioning.

Review the approved DP, if required for the site, and supporting documents for decommissioning activities with radiological risks and hazards similar to those present during principal activities. As necessary, develop a site-specific inspection plan that can be used during the transition from operations into decommissioning. Refer to IMC 2800 and associated IPs for the materials operational safety program.

#### 03.01 Observation of Decommissioning Activities (RM-01)

Identify one or more physical decommissioning activities that are ongoing or completed at the site. When selecting from multiple activities, the inspector should prioritize activities involving higher radiological risk. This includes reviews of areas with: (1) higher inventories of radioactive materials; (2) loose or soluble chemical forms of radioactive materials; (3) hard-to-detect radionuclides (e.g., alpha-emitting radionuclides or low-energy beta radionuclides); and (4) decommissioning activities using novel or unconventional technologies. The inspector should prioritize activities that involve the application of physical or chemical forces or energy such as demolition, dismantling or decontamination.

#### 03.02 Occupational Radiation Protection (RM-02)

Observe ongoing activities under RWPs and standard operating procedures (SOPs) to ensure that all necessary controls to limit occupational exposures are in place and work is conducted in accordance with the associated documents. Records to be reviewed include occupational exposure records, RWPs, radiological surveys, and release records. Quality control of records and data should be evaluated. For example, if RWPs require respirators or breathing zone (BZ) air monitoring, ensure that the individuals signed in to the RWP are respirator qualified or were issued BZ monitors and the results were correctly converted to dose for the employee. Review spreadsheet calculations to ensure algorithms are appropriate. Verify implementation of ALARA principles in the radiation protection program. [See IP83822 for additional information on ALARA].

The inspector should ensure that the licensee reported any radiological events to the NRC as required by license or regulation. If the license has agreed to provide courtesy notifications to the NRC for issues that are not reportable to the NRC but were required to be reported to the State, the inspector should verify that these courtesy notifications were made. The inspector should note that some of these courtesy notifications are documented as license conditions.

The inspector should:

- a. Observe routine contamination controls surveys in restricted and unrestricted areas, such as process areas, maintenance areas and rest areas (e.g., break rooms).
- b. Observe whether restricted areas are correctly posted such as radiation areas and airborne radioactivity areas.
- c. Observe the use of ventilation controls and or respiratory protection as required by RWPs or SOPs.
- d. Observe worker's use of radiological measuring and sampling equipment. The inspector should ensure that the licensee's staff demonstrates knowledge and understanding of measuring equipment such as survey equipment, air samplers, and self-frisking stations. The inspector should perform independent radiation surveys to assess the performance of the licensee's radiation protection equipment.
- e. Observe postings of notices to workers. The inspector should verify that the licensee's posting of notices meets regulatory requirements.
- f. Review records that document occupational exposures including bioassay and dose assessment performed as a result of incidents and accidents.
- g. Randomly select and review records such as equipment release records and routine contamination surveys.
- h. Review RWPs and SOPs to ensure that radiological controls have been established and implemented. Cross reference RWP documents against bioassay and air monitoring records.
- i. Review the instrumentation and calibration and functional test records. These records include but are not limited to, portable survey instruments, fixed monitoring equipment, constant air monitors, portable air samplers, BZ air samplers and alarming dosimeters. If the licensee calibrates or maintains any of these components, observe the calibration and maintenance activities and/or have personnel demonstrate the processes used.
- j. Assess training and qualification of the licensee's employees through interviews and observation to determine how well employees understand their work activities and to ascertain whether licensee staff are qualified to implement the NRC-approved DP.

## 03.03 Security and Control of Radioactive Material (RM-03)

Observe the licensee's security and control of radioactive materials with particular emphasis on storage of radioactive waste. Observe the storage of waste materials being stored or staged within and outside of the restricted area. Determine if the licensee has implemented adequate security and controls based on the risks associated with the radioactive material.

#### 03.04 Waste Generation, Storage and Transportation (RM-04)

Review records pertinent to waste disposal including waste inventories, decay in storage and waste manifests. Verify the waste disposal compliance is consistent with the requirements of 10 CFR Part 20 and 10 CFR Part 61applicable to low-level radioactive

waste. If the licensee has used Part 20, Subpart K (e.g., 20.2002, 20.2003, 20.2004or 20.2005,) review the documentation to support this alternate disposal, verify that the waste was appropriately disposed of under these provisions and the licensee has the appropriate NRC approvals, if applicable. Waste storage areas shall be observed to ensure they are adequately designed, shielded, secured, and posted. Measure exposure rates in areas adjacent to storage locations to verify doses to public or non-occupational workers are within regulatory limits. For transportation activities refer to IP 86740, "Inspection of Transportation Activities," for additional information.

#### 03.05 Public Dose, Effluent Releases and Environmental Monitoring (RM-05)

The license application and specific license conditions may provide additional audit and program review requirements related to public dose, effluent releases and environmental monitoring. Additional guidance on inspection of effluent releases and environmental monitoring can be found in IP 88045, "Effluent Control and Environmental Protection."

- a. <u>Effluent Monitoring</u>. Review records of air and liquid effluent measurements and calculations maintained in accordance with 10 CFR 20.2103(b)(4), "Records of surveys."
- b. <u>Public Dose</u>. Verify that the licensee has conducted operations so that the total dose to the public is in accordance with 10 CFR 20.1301 and 20.1302.
- c. <u>Reporting</u>. If the licensee has agreed to make courtesy notifications to the NRC for issues, such as spills and excursions that are not reportable to the NRC, but were required to be reported to the State, the inspector should verify that these events were also reported to the NRC.

#### 03.06 Management Organization and Controls (RM-06)

Review licensee implementation of approved plans and programs, regulatory requirements and license conditions for the management and control of decommissioning at the facility, including: (1) licensee organizational structure in place for the decommissioning project; (2) designation and qualification of the Radiation Safety Officer (RSO), the Quality Assurance program and annual review; (3) records control and storage; (4) internal review and audit; (5) safety committee; (6) procedure control for cleanup operations; and (7) decommissioning procedures to be implemented. Refer to IP 87305, "Management Organization and Controls," for additional information.

The inspectors should assess the current organization of the decommissioning program. Compare the organizational chart showing numbers of staff, staff functions and a description of each function against procedures, license, and DP requirements. The inspectors should verify that the RSO has the authority and resources (e.g., staffing and equipment) necessary to ensure implementation of the radiation safety program.

The routine audit program review requirements for the radiation safety program vary by site. At a minimum, the inspector should verify that the annual program review required by 10 CFR 20.1101(c), "Radiation protection programs," was conducted.

For a complex materials site, defined in IMC 2602, the inspector should review the decommissioning facility change management program and other safety-related controls that are described in the licensee's performance-based license or DP. The inspector should evaluate which operational systems and controls are required to ensure

occupational and public radiation safety during decommissioning activities. Inspectors should verify through observations and records review that the support systems needed for dismantlement and cleanup efforts are functional. These systems include electrical power, heating ventilation and air conditioning systems, water supply, in-plant communications systems, liquid and solid contaminated waste systems, sewage treatment and lighting.

#### 03.07 Final Status Surveys (FSS) (RM-07)

Verify the level of survey coverage for rooms, structures and/or land areas. Review the licensee's procedures for performing surface activity measurements and scans of room or building surfaces including duct work and piping. Inspection of outdoor areas including performing soil, surface water and groundwater sampling and/or ground surface gamma scans as applicable to the site based onsite history. Refer to IP 83890 for additional information related to review of the FSS.

## 87104-04 RESOURCE ESTIMATE

The direct onsite inspection hours required to complete this inspection are dependent upon: (1) the licensee's decommissioning activities being inspected; (2) the standard materials health and safety inspection areas covered in the inspection; (3) the overall complexity of decommissioning the facility; and (4) the duration of the licensee's decommissioning program. For facilities needing a significant decommissioning effort, it is estimated that approximately 10 to 40 inspection hours will be needed to complete each inspection of a key decommissioning activity or standard health and safety area from the operational program.

## 87104-05 PROCEDURE COMPLETION

This IP is complete when the inspector has sufficiently reviewed the licensee's performance under each RM and the objective of this procedure have been met.

## 87104-06 REFERENCES

IMC 1230, "Quality Assurance Program for Radiological Confirmatory Measurements," 10/1/83.

- IMC 2602, "Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees." December 2022
- IMC 2605, "Decommissioning Procedures for Fuel Cycle and Materials Licensees."

Applicable portions of the following NRC documents should be used for guidance:

- NUREG-1469, "Generic Environmental Impact Statement in support of Rulemaking on Radiological Release Criteria for License Termination for NRC-licensed Nuclear Facilities."
- NUREG-1507, Revision 1, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions," August 2020.

- NUREG-1575, Revision 1, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," August 2000.
- NUREG-1727, "NMSS Decommissioning Standard Review Plan," September 2000 (Appendix D, ALARA).
- NUREG-1748, "Environmental Review Guidance for Licensing Actions associated with NMSS Programs."
- NUREG-1757, Volumes 1-3, "Consolidated Decommissioning Guidance."

## END

#### **APPENDICIES**

Appendix A: Materials Decommissioning Inspection Field Notes

#### ATTACHMENTS

Attachment 1: Revision History for IP 87104

#### Appendix A: Materials Decommissioning Inspection Field Notes

This appendix provides field notes which can be used by the inspector to assist with the performance of the inspection. Note that all areas indicated in the field notes are not required to be addressed during <u>each</u> inspection. However, for those areas <u>not covered</u> during the inspection, a notation ("Not Reviewed") should be made in each section where applicable. Additionally, all areas covered during the inspection should be documented in sufficient detail to describe what activities and/or records the inspector observed. The fieldnotes to the "Decommissioning Inspection Procedure for Materials Licensees," should be supplemented with: (1) the applicable discretionary Inspection Procedures (IP) for operating facilities provided in the IP 87100 series; and (2) other written documentation of the inspection, as necessary.]

## 1.01 SUMMARY OF DECOMMISSIONING STATUS

The checklist below is intended to provide, in a written outline format, summary documentation of the status of the licensee's facility in the decommissioning process. This documentation will be filed as part of the inspection report. The inspector should use this information to develop each inspection plan(s) for the various stages of decommissioning, namely, before dismantlement, during dismantlement and site remediation, and after site remediation.

a.	Licensee ceased operational program ()Y ()N
b.	Required decommissioning financial assurance mechanisms in place ()Y ()N
c.	Decommissioning Plan (DP) required ( )Y ( )N
d.	Licensee final survey required()Y()N
e.	NRC confirmatory survey required ()Y ()N
f.	NRC closeout inspection required ( )Y ( )N
g.	Licensee doing decommissioning planning and preparation before dismantlement
h.	Licensee actively remediating site ()Y ()N
i.	Licensee completed site remediation ( )Y ( )N

Description of Facility Status:

## 1.02. INSPECTION OF KEY DECOMMISSIONING ACTIVITIES

The following is a generic checklist of major licensee activities occurring at various stages of decommissioning. From this generic checklist and from facility-specific activities you identify, develop the set of licensee activities to be inspected - for each individual inspection throughout the decommissioning process. Plan to focus inspection resources on risk modules (RMs) that present potential high-risk conditions. Look for demonstration of ALARA practices during decommissioning planning and execution.

To complete the licensee activities checklist, the inspector will need to obtain information from the Licensing Project Manager, review the DP, make observations at the licensee's facility, review licensee records, take measurements and samples of contaminants, and undertake other investigative measures, to determine whether the licensee is meeting all regulatory and DP commitments for each decommissioning activity the licensee is performing.

#### 1.03 LICENSEE ACTIVITIES INSPECTED BEFORE DISMANTLEMENT

#### RM 1: Observation of Decommissioning Activities

•	Work planned and implemented to reduce plant footprints. Are ALARA practices planned and implemented?()Y ()N
•	Support systems and services (e.g., water, lighting) in place()Y ()N
•	Facility license conditions are in place and met by licensee()Y ()N
•	Workers conducting work as required by standard operating procedures (SOPs) or RWPs()Y ()N
•	Hazard identification conducted and communicated to employees()Y ()N
•	Controls in place to mitigate hazards, reduce exposure, and are appropriate for work planned()Y()N
RM 2:	Occupational Radiation Protection
•	Work is performed in accordance with radiation protection program requirements and good health physics/ALARA practices()Y()N
•	All contaminated areas, waste processing areas, and waste handling areas are posted in conformance with requirements()Y()N
•	Routine contamination surveys are conducted in restricted and unrestricted areas at the required frequencies()Y ()N
•	Ventilation or respiratory protection controls are in place, as required()Y ()N
•	Employees performing surveys or sampling demonstrate proficiency, and an understanding of the use and limitations of the equipment()Y()N
•	Notices to employees and other NRC inspection information appropriately posted()Y ()N
•	Dose assessment performed for incidents/accidents or as the result of abnormal monitoring results()Y()N
•	Routine contamination and equipment release records are appropriate (correct information, appropriate instrument, calibrated instrument)()Y()N

•	Cross check of RWPs with bioassay and air monitoring records indicate that employees were appropriately qualified and results converted to dose()Y()N
•	Calibration and functional testing for instrumentation conducted and documented as appropriate()Y ()N
•	Training and qualification for employees appropriate for their job()Y ()N
RM 3:	Security and Control of Radioactive Material
•	Radioactive material locked in storage when not in use()Y ()N
•	Licensee maintains constant surveillance of material when in use()Y()N
•	Radioactive waste stored or staged appropriately in both restricted and unrestricted areas()Y()N
•	Controls and security in place are commensurate with the risk from the radioactive materials()Y()N
RM 4:	Waste Generation, Storage and Transportation
•	Onsite waste storage complies with applicable regulations()Y ()N
•	Staging for waste prior to onsite disposal or packing for offsite disposal appropriate to limit/prevent access to or migration of the waste()Y ()N
•	Shipment of offsite waste meets applicable requirements()Y ()N
RM 5:	Public Dose, Effluent Releases and Environmental Monitoring
•	Monitoring and public dose compliance continued from operations()Y()N
•	Licensee providing environmental data to NRC, as required()Y ()N
•	Reporting requirements (and courtesy reporting), as required()Y ()N
•	Effluent monitoring records and reporting appropriate()Y ()N
٠	Total public dose within limits()Y ()N
•	Dose assessment for spaces adjacent to radioactive material storage locations and doses are appropriate for public()Y ()N

# RM 6: Management Organization and Control

•	Management supports annual ALARA and safety audits of program()Y ()N				
•	Radiation Safety Officer (RSO) has authorities and resources needed for radiation safety program()Y ()N				
•	Licensee recordkeeping complies with Title 10 of the <i>Code of Federal</i> <i>Regulations</i> (10 CFR) 30.36, "Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas," §40.42, "Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas," and §70.38, "Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas."	( )Y ( )N			
•	DP and schedule in development or has been submitted and is under review by the NRC	( )Y ( )N			
RM 7:	Final Status Surveys (FSSs)				
	Not applicable.				
Basis f	for Findings:				
1.04	LICENSEE ACTIVITIES INSPECTED DURING DECONTAMINATION, DISMANTLEMENT AND SITE REMEDIATION				
RM 1:	Observation of Decommissioning Activities				
•	Decontamination and remediation of the following are being performed consistent with DP and sound industry (health physics/ALARA/remediation) practices for:				
	• 501	( )Y ( )N			
	Sediment.	( )Y ( )N ( )Y ( )N			
	<ul> <li>Sediment.</li> <li>Surface waters.</li> </ul>	( )Y ( )N ( )Y ( )N ( )Y ( )N			
	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> </ul>	( )Y ( )N ( )Y ( )N ( )Y ( )N ( )Y ( )N			
•	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> <li>Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).</li> </ul>	( )Y ( )N ( )Y ( )N ( )Y ( )N ( )Y ( )N ( )Y ( )N			
•	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> <li>Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).</li> <li>Support systems and services (e.g., lighting, water) in place.</li> </ul>	()Y()N ()Y()N ()Y()N ()Y()N ()Y()N			
•	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> <li>Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).</li> <li>Support systems and services (e.g., lighting, water) in place.</li> <li>Work planned and implemented to reduce licensee footprints.</li> </ul>	()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N			
•	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> <li>Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).</li> <li>Support systems and services (e.g., lighting, water) in place.</li> <li>Work planned and implemented to reduce licensee footprints.</li> <li>Facility licensing conditions are in place and met by licensee.</li> </ul>	()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N			
• • •	<ul> <li>Soli.</li> <li>Sediment.</li> <li>Surface waters.</li> <li>Groundwater.</li> <li>Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).</li> <li>Support systems and services (e.g., lighting, water) in place.</li> <li>Work planned and implemented to reduce licensee footprints.</li> <li>Facility licensing conditions are in place and met by licensee.</li> <li>Workers conducting work as required by SOPs or RWPs.</li> </ul>	()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N ()Y()N			

•	Hazard identification conducted and communicated to employees				
•	Controls in place to mitigate hazards, limit exposure and are appropriate for work planned(	)Y ( )N			
RM 2:	Occupational Radiation Protection				
•	Licensee has developed and implemented a training program for new decommissioning activities (e.g., demolition of structures, excavation of soils, etc.). Inspection has determined that this program is adequate and training and qualification for employees is appropriate for their job responsibilities	)Y ( )N			
•	Work is performed in accordance with radiation protection program requirements and good health physics/ALARA practices(	)Y ( )N			
•	All contaminated areas, waste processing areas and waste handling areas are posted in conformance with the regulations(	)Y ( )N			
•	Routine contamination surveys are conducted in restricted and unrestricted areas at the required frequencies(	)Y ( )N			
•	Ventilation or respiratory protection controls are in place as required(	)Y ( )N			
•	Employees performing surveys or sampling demonstrate proficiency, and an understanding of the use and limitations of the equipment(	)Y ( )N			
•	Notices to employees and other NRC inspection information appropriately posted(	)Y ( )N			
•	Dose assessment performed for incidents/accidents or as the result of abnormal monitoring results(	)Y ( )N			
•	Routine contamination and equipment release records are appropriate (correct information, appropriate instrument, calibrated instrument)(	)Y ( )N			
•	Cross check of RWPs with bioassay and air monitoring records indicate that employees were appropriately qualified and results converted to dose(	)Y ( ) N			
•	Calibration and functional testing for instrumentation conducted and documented as appropriate(	)Y ( )N			
RM 3:	Security and Control of Radioactive Materials				
•	Radioactive material locked in storage when not in use(	)Y ( )N			
•	Licensee maintains constant surveillance of material when in use(	)Y ( )N			
•	Radioactive waste stored or staged appropriately in both restricted and unrestricted areas(	)Y ( )N			

•	Controls and security in place are commensurate with the risk from the Radioactive Materials()Y()N
•	Licensee is using passive and active methods to control access to radioactive materials()Y()N
•	Licensee is working to reduce the presence of non-waste radioactive material onsite and using appropriate transfer processes to accomplish these reductions()Y()N
RM 4:	Waste Generation, Storage and Transportation
•	Waste characterization and packaging in accordance with Title 49 Code of Federal Regulation (CFR), "Transportation."()Y()N
•	Temporary storage/staging areas for radioactive wastes from building demolition, equipment dismantlement, soil excavation, etc., are posted and protected()Y()N
•	Waste transportation complies with applicable requirements for marking, labeling, placarding, and shipping papers()Y()N
•	Staging for waste prior to onsite disposal or packing for offsite disposal appropriate to limit/prevent access to or migration of the waste()Y()N
RM 5:	Public Dose, Effluent Releases and Environmental Monitoring
RM 5: •	Public Dose, Effluent Releases and Environmental Monitoring Effluent monitoring and public dose compliance during decommissioning()Y ()N
RM 5: •	Public Dose, Effluent Releases and Environmental MonitoringEffluent monitoring and public dose compliance during decommissioning()Y ()NWhere active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y ()N
RM 5: • •	Public Dose, Effluent Releases and Environmental MonitoringEffluent monitoring and public dose compliance during decommissioning()Y()NWhere active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y()NUnrestricted release of materials or equipment is appropriate()Y()N
RM 5: • •	Public Dose, Effluent Releases and Environmental MonitoringEffluent monitoring and public dose compliance during decommissioning()Y ()NWhere active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y ()NUnrestricted release of materials or equipment is appropriate()Y ()NReporting requirements (and courtesy reporting) as required()Y ()N
RM 5: • •	Public Dose, Effluent Releases and Environmental Monitoring Effluent monitoring and public dose compliance during decommissioning()Y ()N Where active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y ()N Unrestricted release of materials or equipment is appropriate()Y ()N Reporting requirements (and courtesy reporting) as required()Y ()N Dose assessment for spaces adjacent to radioactive material storage locations and doses are appropriate for public()Y ()N
RM 5: • • • • RM 6:	Public Dose, Effluent Releases and Environmental Monitoring Effluent monitoring and public dose compliance during decommissioning()Y()N Where active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y()N Unrestricted release of materials or equipment is appropriate()Y()N Reporting requirements (and courtesy reporting) as required()Y()N Dose assessment for spaces adjacent to radioactive material storage locations and doses are appropriate for public()Y()N
RM 5: • • RM 6: •	Public Dose, Effluent Releases and Environmental Monitoring         Effluent monitoring and public dose compliance during decommissioning()Y()N         Where active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y()N         Unrestricted release of materials or equipment is appropriate()Y()N         Reporting requirements (and courtesy reporting) as required()Y()N         Dose assessment for spaces adjacent to radioactive material storage locations and doses are appropriate for public()Y()N         Management Organization and Controls         Licensee has implemented procedures for the decommissioning activities identified in the DP()Y()N
RM 5: • • • • • •	Public Dose, Effluent Releases and Environmental Monitoring Effluent monitoring and public dose compliance during decommissioning()Y()N Where active remediation is being performed (decontamination or demolition of structures, excavation of soil, etc.) radiation levels in unrestricted areas do not exceed 2 mrem in any one hour()Y()N Unrestricted release of materials or equipment is appropriate()Y()N Reporting requirements (and courtesy reporting) as required()Y()N Dose assessment for spaces adjacent to radioactive material storage locations and doses are appropriate for public()Y()N Management Organization and Controls License has implemented procedures for the decommissioning activities identified in the DP()Y()N

• RSO has authorities and resources needed to for radiation safety program. .( )Y ( )N

## RM 7: FSSs

- Survey instruments are applicable to the contaminants of interest.....()Y()N
- Use of survey instruments is appropriate.....()Y()N Basis for Findings:

## 1.05 LICENSEE ACTIVITIES INSPECTED AFTER COMPLETION OF SITE REMEDIATION

## RM 1: Observation of Decommissioning Activities

• Licensee recordkeeping complies with 10 CFR 30.36, §40, 42, and §70.38..()Y ()N

## RM 2: Occupational Radiation Protection

• FSS in accordance with radiation protection program.....()Y ()N

## RM 3: Security and Control of Radioactive Material

• Site security and control appropriate with site conditions ......()Y()N

## RM 4: Waste Generation, Storage and Transportation

• Transportation of waste complies with applicable requirements......()Y()N

## RM 5: Public Dose, Effluent Releases and Environmental Monitoring

• Unrestricted release of materials and equipment is appropriate ......()Y()N

## RM 6: Management Organization and Control

Licensee has implemented procedures for the decommissioning
 activities identified in the DP......()Y()N

## RM 7: FSSs

• Surveys performed in accordance with the DP.....()Y()N

## Basis for Findings:

## END

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)
	1996	Issued	None	N/A
	06/04/97 CN 02-029	Revised for clarification	None	N/A
	ML022120634 07/29/02 CN 02-029	Revised for clarification	None	N/A
N/A	ML19064B360 10/09/19 CN 19-033	Minor edits to clarify confirmatory survey requirements and provide consistency with IP 83890, "Closeout Inspection and Survey." Changes made in Section 3, "General," and Section 3.2.c.," Inspections after Remediation," bullet 3.	None	ML19204A111
	ML22010A142 12/15/22 CN 22-026	Revised to reflect performance-based, risk-informed inspection philosophy. Reissued in its entirety due to substantial changes	TBD	ML22327A265

# Attachment 1: Revision History for IP 87104