




UNITED STATES
NUCLEAR REGULATORY COMMISSION
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June 10, 2025

MEMORANDUM TO: Elise Eve, Decommissioning Team Lead
Decommissioning, ISFSI & Reactor HP Branch
Division of Radiological Safety and Security
Region I

FROM: Chris Einberg, Chief  Signed by Einberg, Christian
Medical Safety and Events Assessment Branch on 06/10/25
Division of Materials Safety, Security, State, and Tribal Programs
Office of Nuclear Material Safety and Safeguards

SUBJECT: REGION I RADIATION SAFETY PROGRAM AUDIT

This memorandum provides a summary of the biennial audit of the Region I (RI) radiation safety program (RSP). Per RI "Radiation Safety Manual" (RSM) dated January 22, 2021 ([ML21022A015](#)) and Management Directive 10.131, "Protection of NRC Employees Against Ionizing Radiation," dated July 11, 2018 ([ML18192C169](#)) the RI radiation safety officer (RSO) should coordinate and have an independent audit of the Regional RSP completed every two years. Additionally, RI uses Regional Instruction 0860.1, Revision 14, Region 1 Office Radiation Safety Program, dated July 27, 2022 ([ML18198A262](#)) to supplement MD 10.131.

The Office of Nuclear Material Safety and Safeguards (NMSS) RSO held a meeting with the RI RSO during April 2025, to discuss the scope and plan of the biennial audit. The audit checklist from the RI RSM (Appendix J) was utilized. The audit was conducted by the NMSS RSO and incrementally took place throughout the month of May 2025. The audit was to address calendar years 23-24 RSP activities. The NMSS RSO provided preliminary observations throughout the audit to the RI RSO.

This audit verified that RI radiation safety program requirements are being met from a performance-based perspective. RI RSO and ARSO are satisfactory in meeting program requirements. The RI radiation safety program adequately supports the Nuclear Regulatory Commission's objectives related to radiation safety of employees. The NMSS RSO presented the findings of this RI audit at the 2025 RSO Counterpart meeting (May 2025).

The attachment to this letter provides a listing of the general program requirements that were audited, the method(s) of verification and applicable references, resources and points of contact and audit comments and findings.

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	Program Requirement	Method of Verification	References / Resources / Names	Results/Discussion
1	Region I (RI) adequately exercises the organizational responsibilities listed in MD 10.131.III.G, that relate directly to radiation safety of RI employees	Record and document review	<p>Management Directive 10.131, "Protection of NRC Employees Against Ionizing Radiation," dated July 11, 2018</p> <p>RI RSO SharePoint</p> <p>Mr. Jonathan Pfingsten</p>	<p>RI maintains an exceptional program and meets the MD requirements. The RSO (Mr. Jonathan Pfingsten) is actively engaged and maintains an impeccably managed program.</p> <p>RI leadership provides the RSO the appropriate time and resources to be a successful at their position.</p> <p>RI is the only Region that maintains a Radiation Safety Committee (RSC). The RSC responsibilities are listed in the RSM. This is recognized as BEST PRACTICE. RI leadership is aware of RSP issues and personnel exposures.</p> <p>The last biennial audit was completed by Casey Aldridge and Eric Simpson of RIV Oct 2022. There were no findings or corrective actions to review from that audit.</p> <p>There were no adverse findings or delinquent actions noted during the RI audit.</p>

	Program Requirement	Method of Verification	References / Resources / Names	Results/Discussion
2	The RI RSO adequately exercises the organizational responsibilities listed in MD 10.131.III.J. and the responsibilities in the RSM section 4.4.	Record and document review	<p>Management Directive 10.131, "Protection of NRC Employees Against Ionizing Radiation," dated July 11, 2018</p> <p>RI Radiation Safety Manual (RSM) dated January 22, 2021</p> <p>Regional Instruction 0860.1, Revision 14, Region 1 Office Radiation Safety Program</p>	<p>The RSO's records program is in excellent condition and employee correspondence and dose records were readily available for inspection (via RI RSO SharePoint site).</p> <p>The RSO is actively involved in the agency and RI dosimetry program. The RSO had records of completed dose investigations and correspondence with those exposed to x-ray radiation during travel.</p> <p>Annual NRC Form 5's, Occupational Dose Record for a Monitoring Period were provided to those RI employees that exceeded 100 mrem/yr.</p> <p>Also recognized as a BEST PRACTICE was the CY Regional Radiation Safety Program Annual Report provided by the RSO to the RA. CY report 22 and 23 were reviewed. This report provided a history of occupational exposures, investigations, issues with dose reports and other program issues.</p> <p>Before the audit closed, a new RSO (Katie Barnes) and ARSO (Nick Eckhoff) were appointed by the RA IAW MD 10.131. The memorandum was signed 13 May 2025 as the former RSO transferred to RIIL.</p>

	Program Requirement	Method of Verification	References / Resources / Names	Results/Discussion
3	Employees requesting dosimetry successfully complete the requisite radiation safety training prior to issuance of dosimetry	Sampling of records (HRMS training) for personnel who were issued dosimeters in calendar years 2023 and 2024	RI Radiation Safety Manual (RSM) dated January 22, 2021	<p>The RI RSO and ARSO provided ALL NRC Form 537, <i>Authorization to Receive a Dosimeter for NRC Employees and Contractors</i>. A review of training records for all RI employees issued dosimeters for CY23-24 was completed with the assistance of TTC personnel. It was verified that all employees had completed Site Access Training as indicated on their completed 537s.</p> <p>RI issues approximately 180 dosimeters per monitoring period.</p> <p>For CY23, no employees exceeded dose investigational levels specified in MD 10.131.</p>
4	Accurate exposure records are being developed and maintained for RI employees	Review of exposure records maintained in the NRC's Employee Exposure Database System (EEDS)	RI Radiation Safety Manual (RSM) dated January 22, 2021	<p>A thorough review of Employee Exposure Database System (EEDS) was completed for all RI employees monitored from 1 Jan 2023 – 30 Jun 2024. Dose information for RI employees was found to be properly incorporated into EEDS for CY23 and Jan-Jun CY24 (remaining CY24 data has yet to be provided by the dosimetry contractor for inspection purposes).</p> <p>Two minor issues were noted and reported to the RSO. These issues are associated to the dosimeter serial number assigned to RI personnel in EEDS.</p>

	Program Requirement	Method of Verification	References / Resources / Names	Results/Discussion
5	The RI radiation survey instrument program has calibrated and operational equipment that meets the needs of the RI employees	<p>Review of calibration records and physical inspection of instruments (if applicable) retained by RI</p> <p>Review of associated procedures for obtaining and use of equipment</p>	RI Radiation Safety Manual (RSM) dated January 22, 2021	<p>The Rapiscan Systems Cabinet X-ray System Radiation Leakage Survey and Compliance Critical Examination Report were reviewed from period 2017-2024.</p> <p>All scatter survey results were less than the maximum leakage radiation limit of 5 $\mu\text{Sv/hr}$ at 5 cm.</p>

CY25 RI Radiation Protection Program Audit Report DATE June 11, 2025

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