

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, DC 20555-0001

June 18, 2024

NRC INFORMATION NOTICE 2024-03: INFORMATION REGARDING LICENSEE
REQUIREMENTS FOR TRANSPORT AND
STORAGE OF CERTAIN CATEGORY 2
QUANTITIES OF RADIOACTIVE MATERIALS

ADDRESSEES

All holders of radiography licenses issued by the U.S. Nuclear Regulatory Commission (NRC) under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 34, "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations;" that, in accordance with 10 CFR 34.1, are also subject to the requirements of 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," as well as Agreement State Radiation Control Program Directors and State Liaison Officers.

PURPOSE

The NRC is issuing this information notice to alert addressees to several recent security-related events involving Category 2 quantities of radioactive material typically used by industrial radiographers. This communication is intended to reinforce compliance with Subpart M, "Reports," of 10 CFR Part 20, "Standards for Protection Against Radiation," and 10 CFR Part 37 requirements. The NRC expects that recipients will review the information for applicability to their operations and consider actions, as appropriate. Any suggestions contained herein are not new NRC requirements; therefore, no specific action or written response is required. The NRC is providing this notice to Agreement States for their information and for distribution to their licensees as appropriate.

DESCRIPTION OF CIRCUMSTANCES

Over the last couple of years, there have been several events reported to the NRC regarding the loss or theft of risk-significant quantities of radioactive material. Using the NRC's Nuclear Material Events Database, the NRC analyzed events occurring in 2022 and 2023 to determine if there were characteristics of the events that should be highlighted. Although the materials were recovered in each case, the events revealed incidents where specific controls to avoid a loss or theft were not implemented. The events, described below, involved a radiography device stolen from a truck, a mobile device that fell out of a truck during transport, delays in international shipments, and a delivered source that was temporarily left unsecured upon receipt.

Event 1:

A radiography exposure device was stolen from a company truck when the crew did not set the darkroom alarm before entering a restaurant. The crew discovered the missing exposure device upon their return to the job site. It was determined that the radiographer had not locked the darkroom door because the key had been lost; additionally, it was determined that the key to the exposure device transport box had been left in the darkroom. The source was later recovered

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undamaged in its fully shielded configuration. The event was reported as required by 10 CFR 20.2201(a)(1)(i) and 10 CFR 37.57(a). The applicable physical protection requirements are 10 CFR 37.49(a)(1) and 10 CFR 37.51(a).

Event 2:

A licensee reported that an industrial radiography device fell off a vehicle and was lost but was later located in another state. The device was picked up by a third party and transported to their work location in an adjacent state. A meeting time and place was agreed upon whereby the third party returned the device to the licensee. The device was determined to be undamaged. The event was reported as required by 10 CFR 20.2201(a)(1)(i), and the applicable physical protection requirement is 10 CFR 37.53, "Requirements for Mobile Devices."

Event 3:

A licensee reported an export shipment as missing that contained three radiography sources. The sources were located and returned to the licensee after it was determined the shipment was routed to a broker, to a freight forwarder, then to a common carrier where sources were recovered by the State radiation control bureau and local law enforcement. The event was reported as required by 10 CFR 20.2201(a)(1)(i), 10 CFR 37.81(b), 10 CFR 37.81(d), and 10 CFR 37.81(f). The applicable physical protection requirements are 10 CFR 37.73(b), (c), and (e); 10 CFR 37.75(b); and 10 CFR 37.79(a)(3).

Event 4:

A licensee reported an export shipment as missing that contained a single source changer. Two packages had been shipped, but only one was delivered to the receiving company. The licensee reported that the missing package was found at the carrier's sorting facility and was then shipped to the customer. The event was reported as required by 10 CFR 20.2201(a)(1)(i), 10 CFR 37.81(b), and 10 CFR 37.81(f). The applicable physical protection requirements are 10 CFR 37.73(b), (c), and (e); 10 CFR 37.75(b); and 10 CFR 37.79(a)(3).

DISCUSSION

Although theft and losses of radiological shipments are infrequent, the events reviewed highlight the importance for licensees to ensure implementation of 10 CFR Part 37 requirements. The NRC did not identify a gap in current regulatory requirements that would have contributed to the loss or theft of materials in these events. Furthermore, the requirements of 10 CFR Part 37 continue to provide reasonable assurance of adequate protection of public health and safety when considering the potential consequences of loss or theft during transport of these materials. Therefore, the NRC is reminding licensees of their responsibility to ensure the physical protection requirements of 10 CFR Part 37 are met when Category 2 quantities of radioactive material are in use, stored, or in transit.

Additional guidance for licensees appears in NUREG-2155, Revision 2, "Implementation Guidance for 10 CFR Part 37 Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," issued March 2022 and in NUREG-2166, "Physical Security Best Practices for the Protection of Risk-Significant Radioactive Material," issued May 2014.

CONTACTS

Please direct any questions about this matter to the technical contact listed below.

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Note: NRC generic communications may be found on the NRC public website,
<http://www.nrc.gov>, under NRC Library/Document Collections.

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OFFICE	NMSS/DFM	OE	DRA/ARCB	NRR/DRO/IOEB	NRR/DRO/IOLB
NAME	SHelton	JPeralta	KHsueh	PClark	IBetts
DATE	04/30/24	05/20/24	05/20/24	05/22/24	5/22/24
OFFICE	NRR/DRO/IOEB	OCIO	NMSS/MSST	NRR/DRO (PMcKenna for)	
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