



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

March 17, 2023

ALL AGREEMENT STATES, CONNECTICUT, INDIANA, WEST VIRGINIA

**NOTIFICATION OF UPCOMING INSPECTIONS OF AGREEMENT STATE LICENSEES  
POSSESSING SPECIAL NUCLEAR MATERIAL OF LOW STRATEGIC SIGNIFICANCE  
(STC-23-017)**

**Purpose:** To provide notice of an upcoming U.S. Nuclear Regulatory Commission (NRC) effort to inspect Agreement State licensees possessing special nuclear material of low strategic significance (SNM-LSS).

**Regulatory Issue:** Compliance with the physical protection requirements outlined in Title 10 of the *Code of Federal Regulations* (10 CFR) 73.67.

**Background:** Agreement States have long been able to issue licenses for SNM-LSS. Under 10 CFR 150.14, these licensees are expected to comply with 10 CFR 73.67 for the physical protection of this material and the NRC maintains oversight authority for this regulation. In a recent review of security requirements for Agreement State licensees reporting to the Nuclear Materials Management and Safeguards System (NMMSS), the NRC determined that a limited number of Agreement State licensees possess certain quantities of SNM-LSS that may be subject to 10 CFR 73.67. The NRC has not previously inspected these licensees for compliance with 10 CFR 73.67 requirements.

SNM-LSS quantities are more than 15 grams (but less than critical mass) of uranium-235 (enriched to 20 percent or more) or more than 15 grams of uranium-233 or more than 15 grams of plutonium, or mixtures where the sum of the fractions is less than unity. Critical mass quantities are enriched uranium not exceeding 350 grams, uranium-233 not exceeding 200 grams, and plutonium not exceeding 200 grams.

Licensees are exempt from 10 CFR 73.67 requirements if they possess, use or transport SNM-LSS (1) not readily separable from other radioactive material and which has a total external dose rate in excess of 100 rems per hour at a distance of 3 feet from any accessible surface without intervening shielding, or (2) sealed plutonium-beryllium neutron sources totaling 500 grams or less contained plutonium at any one site or contiguous sites, or (3) plutonium with an isotopic concentration exceeding 80 percent in plutonium-238 as specified in 10 CFR 73.67(b)(1).

**Discussion of Upcoming Oversight Activities:** The NRC has issued and is in the process of implementing Temporary Instruction (TI) 2800/044 "Assessment of Physical Protection Requirements under 10 CFR 150.14 for Agreement State Licensees Possessing, Using, or Transporting SNM of Low Strategic Significance." This TI is a temporary measure to conduct inspections of Agreement States licensees who possess, use, or transport SNM-LSS exceeding the 10 CFR 150.14 thresholds to determine their compliance with the 10 CFR 73.67 physical protection requirements. The NRC will use the TI to support decision-making regarding future inspections.

Agreement State radiation control personnel and licensees will be notified in advance of each inspection. If feasible, NRC staff should coordinate the inspection of this TI with scheduled routine Agreement State inspections. If no inspections are scheduled, Agreement State personnel may observe the NRC inspection. The Agreement State Program will receive all correspondence and findings related to the inspection.

The TI 2800/044 can be found in the NRC Agencywide Documents Access and Management System under Accession Number ML22091A049.

If you have any questions regarding this correspondence, please contact the individual named below.

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on 03/17/23

Kevin Williams, Director  
Division of Materials Safety, Security, State,  
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Office of Nuclear Material Safety  
and Safeguards

STC-23-017 Special Nuclear Material of Low Strategic Significance SNM-LSS Agreement State 73.67  
 DATE March 17, 2023

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**ADAMS Accession No.: ML23011A277; ML22203A004**

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## TEMPORARY INSTRUCTION 2800/044 COMMUNICATIONS PLAN

### Communication Team

NAME	TEAM ROLE	ORGANIZATION	TITLE
Jeremiah Rey	Lead	NSIR/DSO	Reactor Inspector
Willie Lee	Backup Lead	NMSS/MSST	Health Physicist
Jeanette Curry	Support	NSIR/DSO	Security Assistant
Christine Richie	Support	NMSS/MSST	Administrative Assistant

## KEY MESSAGES & TIMELINE

- Agreement State licensees who possess special nuclear material of low strategic significance (SNM-LSS), in quantities specified in Title 10 *Code of Federal Regulations* Part 150.14, but less than critical mass, are subject to U.S. Nuclear Regulatory Commission (NRC) regulatory authority for physical protection.
- NRC has not exercised any oversight of these limited number of licensees possessing SNM-LSS in sufficient quantities to trigger required compliance with 10 CFR 73.67. This activity is being undertaken to address the issue.
- There currently appears to be a low risk of theft of the SNM-LSS if these licensees are implementing some level of physical protection requirements when the material is in storage and controlling access to the material while it is in use.
- The NRC is issuing Temporary Instruction (TI) 2800/044 to evaluate, through inspection, whether Agreement State licensees subject to this TI have adequate physical protection processes and procedures in place for the possession, use, and transport of SNM-LSS consistent with the requirements of 10 CFR 73.67(f) and (g), pursuant to the NRC continued regulatory authority specified in 10 CFR 150.14.

### Timeline

ACTIVITY	ESTIMATED DATE
Inform affected Agreement State licensees and regulators of the anticipated issuance of TI 2800/044	March 2023 prior to issuance of TI 2800/044
Issue TI 2800/044 by the NRR Inspection Manual Coordinator	March 2023
Issue STC and Licensee letters	Within one week after issuance of TI 2800/044
E-mail regional offices (Branch Chiefs and RSAOs) informing them of issuance of the TI.	Immediately after issuance of the letters
Announcement of the TI issuance on the next available National Materials Program Monthly Call.	After issuance of the letters
Coordination with regions on a tentative inspection schedule	March 2023
Commence TI 2800/044 inspections	Early 2023

## BACKGROUND

1. A listing of licensees (excluding power reactors, research reactors and fuel cycle facilities) who recently reported SNM-LSS greater than 15 grams, but less than critical mass, was developed from a query of the Nuclear Materials Management and Safeguards System (NMMSS).
2. Agreement State licensees who possess SNM-LSS, in quantities specified in 10 CFR Part 150.14, but less than critical mass, are subject to NRC regulatory authority for physical protection. These quantities are more than 15 grams of uranium-235 (U-235 contained in uranium enriched to 20 percent or more) or 15 grams of uranium-233 (U-233) or 15 grams of plutonium or the combination of 15 grams when computed by the equation, grams = (grams contained U-235) + (grams plutonium) + (grams U-233). Critical mass quantities are enriched uranium not exceeding 350 grams, uranium-233 not exceeding 200 grams, and plutonium not exceeding 200 grams.
3. An additional assessment was later conducted to identify Agreement State licensees likely subject to 10 CFR 73.67 physical protection requirements. Those licensees possessing only plutonium:beryllium neutron sources were not included in the list.
4. Initially, a list of nine licensees was developed based upon SNM inventories reported in NMMSS and a review of license images collected from States and the NRC Web-Based Licensing System.
5. As part of an outreach effort, a Microsoft Teams meeting was conducted with NRC Regional Agreement State Officers and representatives from seven Agreement States (CA, NJ, NV, PA, TN, TX, WA) regulating the nine licensees possessing SNM that may meet the definition of SNM-LSS and would be subject to 73.67 physical protection requirements. NRC regional staff and Agreement State regulators were briefed on assessment activities and planned outreach regarding the nine identified licensees.
6. Additional information was obtained from the nine licensees regarding the chemical/physical form of the SNM-LSS possessed and level of security, including implementation of a 73.67 physical protection program. The list was later updated to eleven licensees due to reports received through the New York Department of Health and Region I inspection activities.
7. The Office of Nuclear Material Safety and Safeguards (NMSS) solicited assistance from the Office of Nuclear Security and Incident Response (NSIR) regarding development of a Temporary Instruction to initiate inspection activities of Agreement State licensees subject to 73.67 physical protection requirements.
8. NSIR and NMSS began development of TI 2800/044 "Assessment of Physical Protection Requirements under 10 CFR 150.14 for Agreement State Licensees Possessing, Using, or Transporting Special Nuclear Material of Low Strategic Significance."

## STAKEHOLDERS/AUDIENCE & COMMUNICATION TOOLS

### COMMUNICATION TOOLS

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#### ***External Stakeholders***

- Phone/email communication
- STC and Licensee Letters
- NRC Public Webpage
- Regular/Standard Meetings
- Training Seminars

#### ***Internal Stakeholders***

- STC and Licensee Letters
- One-pager email notification

### INTERNAL STAKEHOLDERS

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- Region I, III & IV
- Office of Nuclear Material Safety and Safeguards (NMSS)
- Office of Nuclear Security and Incident Response (NSIR)
- Office of General Counsel (OGC)

### EXTERNAL STAKEHOLDERS

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- Licensees
- Agreement States
- Conference of Radiation Control Program Directors
- Organization of Agreement States

## QUESTIONS & ANSWERS

Q1: Why is NRC inspecting these Agreement State licensees?

A1: Agreement States can license SNM-LSS pursuant to a Section. 274(b) agreement, but NRC maintains the responsibility for oversight of SNM-LSS physical protection requirements, pursuant to 10 CFR 150.14.

Q2: What are SNM-LSS quantities less than critical mass?

A2: Quantities not sufficient to form a critical mass are defined in 10 CFR 150.11 as enriched uranium not exceeding 350 grams, uranium-233 not exceeding 200 grams, plutonium not exceeding 200 grams, or mixtures where the sum of the fractions is less than unity.

Q3: In the event of theft, can these quantities be used to construct an improvised nuclear device?

A3: No. These quantities of SNM-LSS will not support a self-sustaining chain reaction.

Q4: What are the elements of a 10 CFR 73.67 physical protection plan?

A4: The elements include “fixed site” and “in transit” requirements”.

Q5: What are “fixed site” requirements?

A5: They include (1) storage/use of SNM-LSS in a controlled access area (CAA); (2) monitor CAA for unauthorized access with intrusion alarm, other devices, or procedures; (3) assure watchman or offsite response; and (4) establish and maintain response procedures.

Q6: What are “in transit” requirements?

A6: They include (1) advanced notification to receiver of advanced shipments; (2) confirmation from receiver of readiness to accept shipment; (3) transport in tamper-indicating sealed container; (4) container and seal integrity check; (5) arrange for in-transit physical protection in accordance with 73.67(g)(3), which addresses response procedures, notification of loss or unaccounted for shipments and investigation of loss or unaccounted for shipments; and (6) import/export provisions.

Q7: Where can I find 10 CFR 73.67?

A7: You can visit the NRC’s Public website and review the 10 CFR 73.67 regulatory requirements at <https://www.nrc.gov/reading-rm/doc-collections/cfr/part073/part073-0067.html>.



## Links to Relevant Documents

- Temporary Instruction 2800/044 “Assessment of Physical Protection Requirements under 10 CFR 150.14 for Agreement State Licensees Possessing, Using, or Transporting Special Nuclear Material of Low Strategic Significance.”, ‘(ADAMS NO. ML22091A049)