

## TRANSPORTATION SECURITY REQUIREMENTS FOR SPECIAL NUCLEAR MATERIAL OF LOW STRATEGIC SIGNIFICANCE

Security requirements for the transportation of special nuclear material of low strategic significance (SNM-LSS) are specified primarily in 10 CFR 73.67. Additional requirements are located in other sections in 10 CFR Parts 73 and 74. The Nuclear Regulatory Commission's (NRC's) guidance on development of security plans for the transportation of SNM-LSS are contained in Chapters 5-9 in Part II of Regulatory Guide (RG) 5.59. Each RG chapter provides the text of the respective paragraph of the regulations, discusses the intent of the paragraph, and describes the corresponding contents of a licensee's transportation security plan which the NRC staff has found satisfies the requirements of the regulations. The following tables identify the current transportation security requirements for shipments of SNM-LSS and any applicable guidance from RG 5.59. Note that for some regulations, RG 5.59 does not contain any guidance.

### 10 CFR 73.67 Licensee fixed site and in-transit requirements for the physical protection of SNM-LSS.

#### §73.67(a) General performance objectives

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(a)(1)	Each licensee who transports SNM-LSS shall establish and maintain a physical protection system that will achieve the following objectives:	
73.67(a)(1)(i)	Minimize the possibilities for unauthorized removal of SNM consistent with the potential consequences of such actions; and	NOT ADDRESSED
73.67(a)(1)(ii)	Facilitate the location and recovery of missing SNM.	NOT ADDRESSED
73.67(a)(2)	To achieve these objectives, the physical protection system shall provide:	
73.67(a)(2)(i)	Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing SNM;	NOT ADDRESSED
73.67(a)(2)(ii)	Early detection of removal of SNM by an external adversary from a controlled access area;	NOT ADDRESSED
73.67(a)(2)(iii)	Assure proper placement and transfer of custody of SNM; and	NOT ADDRESSED



	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(c)(1)	<p>Submit a security plan or an amended security plan describing how the licensee will comply with all the requirements of paragraph (g), including schedules of implementation.</p> <p>Retain a copy of the effective security plan as a record for 3 years after the close of the period for which the licensee possesses SNM under each license for which the original [security] plan was submitted.</p> <p>Retain a copy of any superseded [security plan] material for 3 years after each change [to the plan]</p>	<p>NOT ADDRESSED</p> <p>NOT ADDRESSED</p> <p>NOT ADDRESSED</p>
73.67(c)(2)	Implement the approved security plan within 30 days of NRC approval of the plan or when specified by the NRC in writing.	NOT ADDRESSED

**§73.67(g) In-transit requirements for SNM-LSS**

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(g)(1)	Each licensee who transports or who delivers to a carrier for transport SNM-LSS shall:	5. Material transportation requirements
73.67(g)(1)(i)	Provide advance notification to the receiver specifying the mode of transport, estimated time of arrival, location of the nuclear material transfer point, name of carrier, and transport identification;	<p><u>5.1 Advance Notification</u></p> <p>The licensees should ensure that prior to each shipment, the receiver will be notified of the impending shipment and provided the following types of information: the mode of transport (truck, train, plane, ship), estimated time of arrival, location of the nuclear material transfer point, name of carrier, and transport identification (e.g., truck, train, flight number; ship name).</p>
73.67(g)(1)(ii)	Receive confirmation from the receiver prior to commencement of the planned shipment that the receiver will be ready to accept the shipment at the planned time and location and acknowledges the specified mode of transport;	<p><u>5.2 Receiver Confirmation</u></p> <p>Describe what procedures will be used to ensure that shipment does not take place until the receiver acknowledges the planned shipment and mode of transport and readiness to accept the shipment at the planned time and location.</p>

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(g)(1)(iii)	Transport the material in a tamper indicating sealed container;	<u>5.3 Container</u> Describe the types of seals that will be used to secure the material's container during transport.
73.67(g)(1)(iv)	Check the integrity of the containers and seals prior to shipment;	<u>5.4 Inspection</u> Describe the procedures to be used to ensure that the integrity of the containers or seals is checked just prior to shipment.
73.67(g)(1)(v)	Arrange for the in-transit physical protection in accordance with the requirements of 73.67(g)(3), unless the receiver is a licensee and has agreed in writing to arrange for the in-transit physical protection.	<u>5.5 Responsibility for In-Transit Physical Protection</u> In its security plan, the shipper should either acknowledge responsibility for the in-transit physical protection of SNM-LSS or ensure that a written agreement from the receiver has been received in which the receiver accepts either full responsibility or shared responsibility for the in-transit physical protection of this material in accordance with §73.67(g)(3).
73.67(g)(2)	Each licensee who receives quantities and types of SNM-LSS shall:	6. Receiver Requirements -- Transportation
73.67(g)(2)(i)	Check the integrity of the containers and seals upon receipt of the shipment,	<u>6.1 Inspection</u> Describe the procedures to be used to ensure that the integrity of the containers and seals will be checked upon receipt of the material shipment.
73.67(g)(2)(ii) 74.15	Notify the shipper of receipt of the material as required in §74.15;  [Intent: Reference to applicant's compliance with its Fundamental Nuclear Material Control Plan and §74.15 will satisfy (g)(2)(ii).]	<u>6.2 Notification</u> Ensure that a completed copy of DOE/NRC Form 741, "Nuclear Material Transaction Report," will be sent to the shipper within 10 days after a material shipment has been received as required in §70.54 of 10 CFR Part 70.  Note: §70.54 has been removed from the NRC's regulations and replaced with §74.15 of 10 CFR Part 74.

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(g)(2)(iii)	Arrange for the in-transit physical protection of SNM-LSS, in accordance with §73.67(g)(3), unless the shipper is a licensee and has agreed in writing to arrange for the in-transit physical protection.	<u>6.3 Responsibility for In-Transit Physical Protection</u> In its security plan, the receiver should either acknowledge responsibility for the in-transit physical protection of SNM-LSS or ensure that a written agreement from the shipper has been received in which the shipper accepts either full responsibility or shared responsibility for the in-transit physical protection of this material in accordance with §73.67(g)(3).
73.67(g)(3)	Each licensee, either shipper or receiver, who arranges for the in-transit physical protection or who takes delivery of such material free on board (f.o.b.) the point at which it is delivered to a carrier for transport shall:	7. In-Transit Physical Protection Requirements
73.67(g)(3)(i)	<p>Establish and maintain response procedures for dealing with threats or thefts of this material.</p> <p>Retain a copy of the current response procedures as a record for 3 years after the period ends when the licensee possesses SNM under each license for which the security procedures were established.</p> <p>Retain a copy of any superseded [response procedure] material for 3 years after such changes [to the procedures].</p>	<p><u>7.1 Response Procedures</u> Identify those events for which response procedures will be developed. Also describe the type of response to be accomplished for each event identified and the duties and responsibilities of the security organization and management involved in the response. Ensure that the NRC will be notified immediately in the event of theft or attempted theft of the material.</p> <p>NOT ADDRESSED</p> <p>NOT ADDRESSED</p>

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(g)(3)(ii)	Make arrangements to be notified immediately of the arrival of the shipment at its destination, or of any such shipment that is lost or unaccounted for after the estimated time of arrival at its destination.	<p><u>7.2 Notification</u> Describe the arrangements and procedures that will be used for notifying the licensee who arranges for the physical protection of material in transit (1) of the arrival of the shipment at its destination or (2) of any such shipment that is lost or unaccounted for after the estimated time of arrival at its destination.</p> <p>[Intent: Notification of shipment arrival should be made by a notification other than the §74.15 notification]</p>
73.67(g)(3)(iii)	Conduct immediately a trace investigation of any shipment that is lost or unaccounted for and notify the NRC Operations Center within one hour after the discovery (and recovery) in accordance with §73.71.	<p><u>7.3 Lost Material Notification</u> Describe what procedures will be used to trace any shipment that is lost or has not arrived by the estimated arrival time. Ensure that all lost or missing material will be immediately reported to the appropriate NRC Regional Office along with what actions are being taken to trace the shipment, that the NRC will be notified as specified in §73.71, and that the shipper or receiver, as appropriate, will also be notified.</p>
73.67(g)(4)	<p>Each licensee who exports SNM-LSS shall:</p> <p>Comply with the appropriate requirements specified in paragraphs (c) and (g)(1) and (g)(3) of this section.</p> <p>Retain a copy of the records required by these sections [regarding export shipments] for 3 years after the close of the period for which the licensee possesses the SNM under each license that authorizes the licensee to export this material.</p> <p>Retain a copy of any superseded [export record] material for 3 years after each change [to an export record].</p>	<p>8. Export Requirements</p> <p>Using Chapters 5, "Material Transportation Requirements [§73.67(g)(1)]," and 7, "In-Transit Physical Protection Requirements [§73.67(g)(3)]," of Part II of this Standard Format, describe the security procedures that will be used to protect the material up to the point where the receiver accepts physical protection responsibility for the shipment.</p> <p>NOT ADDRESSED</p> <p>NOT ADDRESSED</p>

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.67(g)(5)	Each licensee who imports SNM-LSS shall:	9. Import Requirements
73.67(g)(5)(i)	<p>Comply with the requirements specified in paragraphs (c) and (g)(2) and (g)(3) of § 73.67.</p> <p>Retain a copy of the records required by these sections [regarding import shipments] for 3 years after the close of period for which the licensee possesses the SNM to import this material.</p> <p>Retain a copy of any superseded [export record] material for 3 years after each change [to an import record].</p>	<p><u>9.1 Security Requirements</u> Using Chapters 6, "Receiver Requirements-Transportation [§73.67(g)(2)]," and 7, "In-Transit Physical Protection Requirements [§73.67(g)(3)]," of Part II of this Standard Format, describe the security procedures that will be used to protect the material from the first point where the shipment is picked up.</p> <p>NOT ADDRESSED</p> <p>NOT ADDRESSED</p>
73.67(g)(5)(ii)	Notify the person who delivered the material to a carrier for transport of the arrival of such material..	<p><u>9.2 Notification</u> Describe the procedures to be used for notifying the exporter of the material that the shipment was received.</p>

*§73.73 Requirement for advance notice and protection of export shipments of SNM-LSS.*

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.73(a)	A licensee authorized to export SNM-LSS shall:	
73.73(a)(1)	Notify in writing the Director, Division of Nuclear Security, Office of Nuclear Security and Incident Response, using any appropriate method listed in §73.4;	NOT ADDRESSED
73.73(a)(2)	Assure that the notification will be received at least 10 days before transport of the shipment commences at the shipper's facility;	NOT ADDRESSED

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.73(a)(3)	<p>Include the following information in the notification:</p> <p>(i) The name(s), address(es), and telephone number(s) of the shipper, receiver, and carrier(s);</p> <p>(ii) A physical description of the shipment (the elements, isotopes, form, etc.);</p> <p>(iii) A listing of the mode(s) of shipment, transfer points, and routes to be used;</p> <p>(iv) The estimated time and date that shipment will commence and that each country along the route is scheduled to be entered; and</p> <p>(v) The estimated time and date of arrival of the shipment at the destination.</p>	NOT ADDRESSED
73.73(a)(4)	Assure that during transport outside the United States, the shipment will be protected in accordance with Annex I to the Convention on the Physical Protection of Nuclear Material (see Appendix E of Part 73).	NOT ADDRESSED
73.73(b)	A licensee who needs to amend a written advance notification required by paragraph (a) of this section may notify the NRC Headquarters Operations Center by telephone at the numbers listed in Appendix A to Part 73.	NOT ADDRESSED

*§73.74 Requirement for advance notice and protection of import shipments of nuclear material from countries that are not party to the Convention on the Physical Protection of Nuclear Material*

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.74(a)	A licensee authorized to import SNM-LSS from a country not a party to the Convention on the Physical Protection of Nuclear Material (i.e., not listed in appendix F of Part 73) shall:	



	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.74(a)(1)	Notify in writing the Director, Division of Nuclear Security, Office of Nuclear Security and Incident Response, using any appropriate method listed in §73.4;	NOT ADDRESSED
73.74(a)(2)	Assure that the notification will be received at least 10 days before transport of the shipment commences at the shipper's facility; and	NOT ADDRESSED
73.74(a)(3)	Include the following information in the notification: (i) The name(s), address(es) and telephone number(s) of the shipper, receiver, and carrier(s);  (ii) A physical description of the shipment (the isotopes, enrichment, quantity, etc.);  (iii) A listing of mode(s) of shipment, transfer points, and routes to be used;  (iv) The estimated time and date that shipment will commence and that each country along the route is scheduled to be entered; and  (v) The estimated time and date of arrival of the shipment at the destination.	NOT ADDRESSED
73.74(b)	A licensee who needs to amend a written advance notification required by paragraph (a) of § 73.74 may notify the NRC Headquarters Operations Center by telephone at the numbers listed in Appendix A to Part 73.	NOT ADDRESSED
73.74 (c)	A licensee authorized to import from a country not a party to the Convention on the Physical Protection of Nuclear Material (i.e., not listed in appendix F of this part) SNM-LSS, shall assure that during transport outside the United States the shipment will be protected in accordance with Annex I to the Convention on the Physical Protection of Nuclear Material (see Appendix E of Part 73).	NOT ADDRESSED

§ 73.71 *Reporting of safeguards events*

	<b>REGULATORY REQUIREMENTS</b>	<b>RG 5.59 CONTENT</b>
73.71(a)(1)	Each licensee subject to the provisions of §73.67(g) shall notify the NRC Operations Center within one hour after discovery of the loss of any SNM shipment, and within one hour after recovery of or accounting for such lost shipment.	NOT ADDRESSED
73.71(a)(2)	This notification must be made via the Emergency Notification System, if the licensee is party to that system. If the Emergency Notification System is inoperative or unavailable, the licensee shall make the notification via commercial telephonic service or other dedicated telephonic system [301-816-5100 (nonsecure) or 301-415-7148 (secure)] or any other methods that will ensure that a report is received by the NRC Operations Center within one hour. The exemption of § 73.21(g)(3) applies to all telephonic reports required by this section.	NOT ADDRESSED
73.71(a)(3)	The licensee shall, upon request to the NRC, maintain an open and continuous communication channel with the NRC Operations Center.	NOT ADDRESSED
73.71(a)(4)	The initial telephonic notification must be followed within a period of 60 days by a written report. In addition to the addressees specified in §73.4, the licensee shall also provide a copy addressed to the Director, NSIR/DNS. The report must include sufficient information for NRC analysis and evaluation.	NOT ADDRESSED

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
73.71(a)(5)	Significant supplemental information which becomes available after the initial telephonic notification to the NRC Operations Center or after the submission of the written report must be telephonically reported to the NRC Operations Center and also submitted in a revised written report (with the revisions indicated) to the Regional Office and the Document Control Desk. The revised report must replace the previous report; the update must be a complete entity and not contain only supplementary or revised information. Each licensee shall maintain a copy of the written report of an event submitted under this section as a record for a period of three years from the date of the report.	NOT ADDRESSED
73.71(b)(1)	Each licensee subject to the provisions of §73.67 shall notify the NRC Operations Center within 1 hour of discovery of the safeguards events described in paragraph I(a)(1) of Appendix G.	NOT ADDRESSED
73.71(b)(2)	This notification must be made in accordance with the requirements of paragraphs (a)(2), (3), (4), and (5) of this section.	NOT ADDRESSED

Appendix G to Part 73—*Safeguards Event Reporting*

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
I.	Each licensee subject to §73.67 shall report the following safeguards events within 1 hour:	
I.(a)(1)	Any event in which there is reason to believe that a person has committed or caused, or attempted to commit or cause, or has made a credible threat to commit or cause a theft or unlawful diversion of SNM,	NOT ADDRESSED
I.(b)	An actual entry of an unauthorized person into a transport,	NOT ADDRESSED
I.(c)	Any failure, degradation, or discovered vulnerability in a safeguard system that could allow unauthorized or undetected access into a transport for which compensatory measures have not been employed,	NOT ADDRESSED

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
I.(d)	The actual or attempted introduction of contraband into a transport.	NOT ADDRESSED
II.	Each licensee subject to §73.67 shall record within 24 hours of discovery in the safeguards event log the following safeguards events:	
II.(a)	Any failure, degradation, or discovered vulnerability in a safeguard system that could have allowed unauthorized or undetected access into a transport, had compensatory measures not been established,	NOT ADDRESSED
II.(b)	Any other threatened, attempted, or committed act not previously defined in Appendix G with the potential for reducing the effectiveness of the safeguards system below that committed to in a licensed physical security or contingency plan or the actual conditions of such reduction in effectiveness.	NOT ADDRESSED

§ 74.11 *Reports of loss or theft or attempted theft or unauthorized production of SNM.*

	REGULATORY REQUIREMENTS	RG 5.59 CONTENT
74.11(c)	Reports required under §73.71 [regarding loss or theft or attempted loss or theft during transport] need not be duplicated under the requirements of § 74.11	Duplicate reports are not required.

Appendix E to Part 73—*Levels of Physical Protection to Be Applied in International Transport of Nuclear Material*

	<b>REGULATORY REQUIREMENTS</b>	<b>RG 5.59 CONTENT</b>
(a)(1)	Levels of physical protection for nuclear material during storage incidental to international nuclear transport include: For Category III [SNM-LSS] materials, storage within an area to which access is controlled.	NOT ADDRESSED
(b)(1)	Levels of physical protection for nuclear material during international transport include: For Category II and III materials, transportation shall take place under special precautions including prior arrangements among sender, receiver, and carrier, and prior agreement between natural or legal persons subject to the jurisdiction and regulation of exporting and importing States, specifying time, place and procedures for transferring transport responsibility.	NOT ADDRESSED

End