

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

October 28, 2005

**NRC REGULATORY ISSUE SUMMARY 2005-22  
REQUIREMENTS FOR THE PHYSICAL PROTECTION DURING  
TRANSPORTATION OF SPECIAL NUCLEAR MATERIAL  
OF MODERATE AND LOW STRATEGIC SIGNIFICANCE:  
10 CFR PART 73 VS. REGULATORY GUIDE 5.59 (1983)**

**ADDRESSEES**

All holders of licenses for the possession of special nuclear material (SNM) that ship Category II and III quantities of this material.

**INTENT**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to inform addressees that Regulatory Guide (RG) 5.59, "Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance" (1983) does not accurately reflect the current requirements of 10 CFR Part 73, "Physical Protection of Plants and Materials," and 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material," with respect to the transportation of SNM of moderate strategic significance (Category II) or 10 kilograms (kg) or more of SNM of low strategic significance (Category III). No specific action nor written response is required.

**BACKGROUND INFORMATION**

During recent reviews of physical security plans for new license applications and of changes to physical security plans for existing licensees, NRC staff observed that transportation security plans did not address all current regulatory requirements of Parts 73 and 74. However, the plans did comport with the guidance contained in RG 5.59. NRC staff primarily used RG 5.59 to review and approve the transportation security plans previously submitted by licensees.

**SUMMARY OF ISSUE**

Part 73 contains requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of SNM at fixed sites and in transit, and of plants in which SNM is used. Part 73 was promulgated in 1973, and RG 5.59 [Agencywide

**ML052000423**

Documents Access and Management System (ADAMS) accession number ML003739253] was issued in 1980 and last revised in 1983. Part 73 was amended in 1987 and 1988 to add reporting and record-keeping requirements. RG 5.59 has not been updated to reflect these more recent requirements.

10 CFR 73.67(c)(1) requires licensees who transport, or deliver to a carrier for transport, SNM of moderate strategic significance or 10 kg or more of SNM of low strategic significance to submit a security plan describing how the licensee will comply with all the requirements of 10 CFR 73.67(e) or 73.67(g), respectively, including schedules of implementation. NRC staff has developed tables that identify the applicable regulatory requirements for transportation security plans for the transport of Category II and III quantities of SNM that also identify the relevant portions of RG 5.59, if any [see NRC ADAMS Accession numbers ML052000373 and ML052000402, respectively]. The tables specifically identify the requirements not included in RG 5.59. These requirements are briefly summarized as follows:

- 10 CFR 73.67(c)(1) requires licensees who transport, or deliver to a carrier for transport, SNM of moderate strategic significance, or 10 kg or more of SNM of low strategic significance, to submit a security plan describing how the licensee will comply with all the requirements of 10 CFR 73.67(g), including schedules of implementation. 10 CFR 73.67(c)(1) also requires licensees to retain copies of this security plan for 3 years. RG 5.59 does not include this security plan retention requirement.
- 10 CFR 73.67(g)(3)(i) requires licensees who arrange for the in-transit physical protection of SNM of low strategic significance to retain copies of response procedures for dealing with threats or thefts of this material. RG 5.59 does not include this response procedures retention requirement.
- 10 CFR 73.67(g)(4) requires licensees who export SNM of low strategic significance to retain export shipment records for 3 years. 10 CFR 73.67(g)(5) requires licensees who import SNM of low strategic significance to retain import shipment records for 3 years. RG 5.59 does not include these record retention requirements.
- 10 CFR 73.71 contains notification requirements in case of a loss of any SNM shipment or the discovery of any safeguards event. Appendix G to Part 73 describes the safeguards events that must be reported. RG 5.59 does not include this notification requirement.
- 10 CFR 73.73 contains requirements for advance notice and protection of export shipments of SNM of low strategic significance. 10 CFR 73.74 requires 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. RG 5.59 does not include these advance notification and protection requirements.

10 CFR Part 50 reactor licensees transporting a Category II or III quantity of SNM (e.g., a shipment returning a damaged fresh fuel assembly to the fuel manufacturer, subsequent to the licensee's receipt quality control inspection) are subject to the regulations listed in the

referenced tables. However, given the very infrequent nature of such shipments, NRC would find it acceptable for a reactor licensee to arrange for the supplying fuel manufacturer to accept delivery of the fuel at the reactor licensee's site and for the fuel manufacturer to perform the return shipment under the fuel manufacturer's transportation security plan, in lieu of the reactor licensee's developing and submitting its own transportation security plan.

Licensees that perform the activities within the scope of Part 73 involving the transportation of Category II or III quantities of SNM should review their physical security plans to ensure that their plans address the applicable regulatory requirements. If a plan needs to be changed, a licensee shall modify the plan in accordance with 10 CFR 70.32 or 10 CFR 70.34, or with 10 CFR 50.90, as appropriate. NRC will perform a licensing review to determine whether the revised plan complies with the applicable regulations.

As part of a future routine inspection, NRC will verify licensee compliance with all aspects of Part 73. NRC will consider the use of enforcement discretion, as appropriate, in accordance with 10 CFR Part 2 and NRC Enforcement Policy in evaluating violations of the above requirements identified as part of the inspection, if the licensee has taken prompt and comprehensive corrective actions.

#### **BACKFIT DISCUSSION**

This RIS requires no action or written response and is, therefore, not a backfit, under 10 CFR 50.109 or 10 CFR 70.76. Consequently, the staff did not perform a backfit analysis.

#### **FEDERAL REGISTER NOTIFICATION**

A notice of opportunity for public comment was not published in the *Federal Register* because this RIS is informational.

#### **SMALL BUSINESS REGULATORY ENFORCEMENT FAIRNESS ACT OF 1996**

NRC has determined that this action is not subject to the Small Business Regulatory Enforcement Fairness Act of 1996.

#### **PAPERWORK REDUCTION ACT STATEMENT**

This RIS does not contain information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.).

## CONTACT

This RIS does not require any specific action or written response. Please direct any questions about this matter to the technical contact below, or the appropriate regional office.

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Attachment: List of Recently Issued NMSS Generic Communications

Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

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<b>OFFICE</b>	FCSS	Tech Ed	IMNS/MSIB	FCSS/FCFB	NMSS/FCSS
<b>NAME</b>	M. Adams	E. Kraus	I. Cabrera	J. Lubinski	G. Janosko
<b>DATE</b>	07/19/05	07/27/05	08/09/05	08/11/05	08/25/05
<b>OFFICE</b>	NSIR	RII/DRS	OGC (NLO)	OGC (SBREFA)	
<b>NAME</b>	M. Layton	B. Bonser (E-mail)	S. Treby	T. Rothschild	
<b>DATE</b>	8/10/05	09/13/05	08/25/05	10/20/05	
<b>OFFICE</b>	OIS	OE	SC/IROB	D/DLPM	OES/IROB
<b>NAME</b>	B. J. Shelton	M. Johnson	T. Boyce	T. Marsh	A. Markley
<b>DATE</b>	08/15/05	08/11/05	10/11/05	10/05/05	10/27/05
<b>OFFICE</b>	OES/IROB	C/IROB/DIPM	NMSS/FCC		
<b>NAME</b>	M J. Ross- Lee	P. Hiland	R. Pierson		
<b>DATE</b>	10/27/05	10/28/05	10/06/05		

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**Recently Issued NMSS Generic Communications**

Date	GC No.	Subject	Addressees
2/11/05	BL-05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	All holders of operating licenses for nuclear power reactors, decommissioning nuclear power reactor sites storing spent fuel in a pool, and wet spent fuel storage sites.
9/27/05	RIS-04-17, Rev. 1	Revised Decay-in-Storage Provisions for the Storage of Radioactive Waste Containing Byproduct Material	All licensees regulated under 10 CFR Parts 30, 32, 33, 35, 39, and 50.
8/25/05	RIS-05-18	Guidance for Establishing and Maintaining a Safety Conscious Work Environment	All licensees, applicants for licenses, holders of certificates of compliance, and their contractors subject to NRC authority
8/10/05	RIS-05-16	Issuance of NRC Management Directive 8.17, "Licensee Complaints Against NRC Employees"	All licensees and certificate holders.
8/3/05	RIS-05-15	Reporting Requirements for Damaged Industrial Radiographic Equipment	All material licensees possessing industrial radiographic equipment, regulated under 10 CFR Part 34.
7/13/05	RIS-05-13	NRC Incident Response and the National Response Plan	All licensees and certificate holders.

Date	GC No.	Subject	Addressees
7/11/05	RIS-05-12	Transportation of Radioactive Material Quantities of Concern NRC Threat Advisory and Protective Measures System	Licensees authorized to possess radioactive material that equals or exceeds the threshold values in the Additional Security Measures (ASM) for transportation of Radioactive Material Quantities of Concern (RAMQC) under their 10 CFR Part 30, 32, 50, 70, and 71 licenses and Agreement State licensees similarly authorized to possess such material in such quantities under their Agreement State licenses. Enclosure 1 RIS 2005-22 Page 1 of 3
7/11/05	RIS-05-11	Requirements for Power Reactor Licensees in Possession of Devices Subject to the General License Requirements of 10 CFR 31.5	All holders of operating licenses for nuclear power reactors and generally licensed device vendors.
6/10/05	RIS-05-10	Performance-Based Approach for Associated Equipment in 10 CFR 34.20	All industrial radiography licensees and manufacturers and distributors of industrial radiography equipment.
4/18/05	RIS-05-06	Reporting Requirements for Gauges Damaged at Temporary Job Sites	All material licensees possessing portable gauges, regulated under 10 CFR Part 30.
4/14/05	RIS-05-04	Guidance on the Protection of Unattended Openings that Intersect a Security Boundary or Area	All holders of operating licenses or construction permits for nuclear power reactors, research and test reactors, decommissioning reactors with fuel on site, Category 1 fuel cycle facilities, critical mass facilities, uranium conversion facility, independent spent fuel storage installations, gaseous diffusion plants, and certain other material licensees.
2/28/05	RIS-05-03	10 CFR Part 40 Exemptions for Uranium Contained in Aircraft Counterweights - Storage and Repair	All persons possessing aircraft counterweights containing uranium under the exemption in 10 CFR 40.13(c)(5).

Date	GC No.	Subject	Addressees
10/07/05	IN-05-27	Low Dose-Rate Manual Brachytherapy Equipment Related Medical Events	All medical licensees.
7/29/05	IN-05-22	Inadequate Criticality Safety Analysis of Ventilation Systems at Fuel Cycle Facilities	All licensees authorized to possess a critical mass of special nuclear material.
6/23/05	IN-05-17	Manual Brachytherapy Source Jamming	All medical licensees authorized to possess a Mick applicator.
5/17/05	IN-05-13	Potential Non-conservative Error in Modeling Geometric Regions in the Keno-v.a Criticality Code	All licensees using the Keno-V.a criticality code module in Standardized Computer Analyses for Licensing Evaluation (SCALE) software developed by Oak Ridge National Laboratory (ORNL)
5/17/05	IN-05-12	Excessively Large Criticality Safety Limits Fail to Provide Double Contingency at Fuel Cycle Facility	All licensees authorized to possess a critical mass of special nuclear material.
4/7/05	IN-05-10	Changes to 10 CFR Part 71 Packages	All 10 CFR Part 71 licensees and certificate holders.
4/1/05	IN-05-07	Results of HEMYC Electrical Raceway Fire Barrier System Full Scale Fire Testing	All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel, and fuel facilities licensees.
3/10/05	IN-05-05	Improving Material Control and Accountability Interface with Criticality Safety Activities at Fuel Cycle Facilities	All licensees authorized to possess a critical mass of special nuclear material.

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