

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF FEDERAL AND STATE MATERIALS AND  
ENVIRONMENTAL MANAGEMENT PROGRAMS  
WASHINGTON, D.C. 20555

June 5, 2007

**NRC REGULATORY ISSUE SUMMARY 2007-14  
FINGERPRINTING REQUIREMENTS FOR LICENSEES  
IMPLEMENTING THE INCREASED CONTROL ORDER**

**ADDRESSEES**

All U.S. Nuclear Regulatory Commission (NRC) licensees that have received the Increased Controls (IC) requirements. All Agreement State Radiation Control Program Directors and State Liaison Officers.

**INTENT**

The NRC is issuing this regulatory issue summary (RIS) to inform addressees that in Fall 2007, the NRC will issue additional Orders to licensees that have received the IC requirements. The Orders will require fingerprinting and a Federal Bureau of Investigation (FBI) identification and criminal history records check for individuals that have or will have unescorted access to radioactive material in quantities of concern. No specific action or written response is required at this time.

Agreement States will be taking similar actions through the issuance of Orders or other legally binding requirements to their IC licensees.

**BACKGROUND**

Prior to the terrorist attacks of September 11, 2001 (9/11), several national and international efforts were underway to address the potentially significant health and safety hazards posed by uncontrolled sources. Following 9/11, it was recognized that these efforts should focus on efforts to deter unauthorized access to radioactive material for the purpose of malicious acts.

In 2005, NRC and the Agreement States issued IC Orders or other legally binding requirements to licensees [70 Federal Register 72128, December 1, 2005]. The purpose of the ICs for radioactive sources is to enhance control of certain radioactive material in quantities of concern to reduce the risk of unauthorized use, in order to prevent unintended radiation exposure and to prevent malicious acts that would be detrimental to public health and safety. Enclosure 1 identifies these radionuclides and their quantities of concern.

On March 12, 2007, the Commission directed staff to develop a plan to require fingerprinting for IC licensees under the NRC's authority to protect the public health and safety. Enclosure 2 contains Staff Requirements Memorandum SECY-07-0011, directing the development of fingerprinting requirements.

**ML071500056**

IC 1 of the IC Orders requires each licensee ensure the safe handling, use, and control of material by controlling access at all times to radioactive material quantities of concern and by limiting access to such materials to only approved individuals who require access to perform their duties. Under the IC's, licensees approved individuals for unescorted access to radioactive material quantities of concern using a trustworthiness and reliability review process. As part of this process, licensees were required to document the basis for approving individuals who required unescorted access to materials.

For individuals employed by the licensee for three years or less, IC 1.b. requires trustworthiness and reliability to be determined, at a minimum, by verifying employment history, education, and personal references. For individuals employed by the licensee for longer than three years, trustworthiness and reliability is determined, at a minimum, by a review of the employees' employment history with the licensee.

On August 8, 2005, the Energy Policy Act of 2005 (EPAc) was enacted. Section 652 of the EPAc amended Section 149 of the Atomic Energy Act (AEA) to require fingerprinting and an FBI identification and criminal history records check of any person who is permitted unescorted access to radioactive materials subject to regulation by the Commission, and which the Commission determines to be significant to the public health and safety as to warrant fingerprinting and background checks.

## **SUMMARY OF ISSUE**

In accordance with Section 149 of the AEA, as amended by the EPAc, the NRC and Agreement States will impose additional requirements for unescorted access to material in quantities of concern, so that affected licensees can obtain and grant unescorted access to radioactive materials. Orders or other legally binding requirements will be issued in the near future requiring that the results of an FBI criminal history records check, based on fingerprints, are used in conjunction with IC trustworthy and reliability criteria to make determinations for individuals granted unescorted access to radioactive materials in quantities of concern. All NRC and Agreement State licensees that are required to implement the IC requirements will be required to fingerprint and make a trustworthiness and reliability determination for individuals granted unescorted access to radioactive material in quantities of concern.

A joint NRC and Agreement State working group has been formed to address issues associated with the implementation of the fingerprinting requirements of the EPAc for IC licensees. The working group will be responsible for the development of a plan and implementing guidance for the fingerprinting of IC licensees. It is anticipated that fingerprinting Orders or other legally binding requirements will be issued in Fall 2007.

NRC and the Agreement States have recently issued a RIS to non-manufacturer and distributor (non-M&D) service providers. NRC and the Agreement States will offer the opportunity for non-M&D service providers to receive an Order or other legally binding requirements imposing trustworthy and reliability and fingerprinting requirements that manufacturer and distributor (M&D) service provider licensees must currently meet for unescorted access to radioactive material quantities of concern. IC 1.c. requires that all service providers be escorted unless determined to be trustworthy and reliable by an NRC required background investigation as an employee of a M&D licensee.

Once a non-M&D service provider has received and implemented all the trustworthy and reliability and fingerprint requirements, they may provide service without an escort at a IC licensee's facility, if the IC licensee chooses to allow them to have unescorted access.

## **BACKFIT DISCUSSION**

This RIS requires no action or written response. Any action on the part of addressees in accordance with the guidance contained in this RIS is strictly voluntary and, therefore, is not a backfit under any regulatory requirement in 10 CFR. Consequently, the staff did not perform a backfit analysis.

## **FEDERAL REGISTER NOTIFICATION**

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because this RIS is informational, and does not represent a departure from current regulatory requirements.

## **PAPERWORK REDUCTION ACT STATEMENT**

This RIS contains information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget (OMB), approval numbers 3150-0001; 3150-0007; 3150-0009; 3150-0010; 3150-0015; 3150-0016; 3150-0020; 3150-0029; 3150-0130; and 3150-0158.

## **PUBLIC PROTECTION NOTIFICATION**

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

## **CONGRESSIONAL REVIEW ACT**

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. et seq.) and, therefore, is not subject to the Act.

## **RELATED GENERIC COMMUNICATIONS**

RIS 2007-15, "Unescorted Access to Materials for Non-Manufacturer and Distributor Service Providers."

RIS 2007-07, "Clarification of Increased Controls for Licensees That Possess Collocated Radioactive Material During Transportation Activities."

## **CONTACT**

This RIS requires no specific action or written response. If you have any questions, please contact the technical contact listed below or the appropriate regional office.

**/RA/**

Janet R. Schlueter, Director  
Division of Materials Safety  
and State Agreements  
Office of Federal and State Materials  
and Environmental Management Programs

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(301) 415-7637  
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Enclosures:

1. Radionuclides of Concern
2. SRM-SECY-07-0011
3. List of Recently Issued Generic Communications

## RELATED GENERIC COMMUNICATIONS

RIS 2007-15, "Unescorted Access to Materials for Non-Manufacturer and Distributor Service Providers."

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<b>OFC</b>	FSME:SSSB	FSME:SSSB	FSME:MSEA	FSME:MSSA
<b>NAME</b>	NAshkeboussi	THarris	AMcIntosh	SMoore
<b>DATE</b>	<b>5 / 14 /07</b>	<b>5 / 15 /07</b>	<b>5 /15 /07</b>	<b>5/ 16 /07</b>
<b>OFC</b>	OGC-CRA	OGC - NLO	OIS	NSIR:DSP
<b>NAME</b>	DReddick	Tcampbell for JGoldberg	MJanney	MShaffer
<b>DATE</b>	<b>05 / 25 /07</b>	<b>05 / 17 /07</b>	<b>05 / 23 /07</b>	<b>05 / 23 /07</b>
<b>OFC</b>	FSME:MSSA			
<b>NAME</b>	JSchlueter			
<b>DATE</b>	<b>06 / 05 /07</b>			

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## RADIONUCLIDES OF CONCERN

Radionuclide	Quantity of Concern <sup>1</sup> (TBq)	Quantity of Concern <sup>2</sup> (Ci )
Am-241	0.6	16
Am-241/Be	0.6	16
Cf-252	0.2	5.4
Cm-244	0.5	14
Co-60	0.3	8.1
Cs-137	1	27
Gd-153	10	270
Ir-192	0.8	22
Pm-147	400	11,000
Pu-238	0.6	16
Pu-239/Be	0.6	16
Se-75	2	54
Sr-90 (Y-90)	10	270
Tm-170	200	5,400
Yb-169	3	81
Combinations of radioactive materials listed above <sup>3</sup>	See Footnote Below <sup>4</sup>	

<sup>1</sup> The aggregate activity of multiple, collocated sources of the same radionuclide should be included when the total activity equals or exceeds the quantity of concern.

<sup>2</sup> The primary values used for compliance with this Order are TBq. The curie (Ci) values are rounded to two significant figures for informational purposes only.

<sup>3</sup> Radioactive materials are to be considered aggregated or collocated if breaching a common physical security barrier (e.g., a locked door at the entrance to a storage room) would allow access to the radioactive material or devices containing the radioactive material.

<sup>4</sup> If several radionuclides are aggregated, the sum of the ratios of the activity of each source,  $i$  of radionuclide,  $n$ ,  $A_{(i,n)}$ , to the quantity of concern for radionuclide  $n$ ,  $Q_{(n)}$ , listed for that radionuclide equals or exceeds one.  $[(\text{aggregated source activity for radionuclide A}) \div (\text{quantity of concern for radionuclide A})] + [(\text{aggregated source activity for radionuclide B}) \div (\text{quantity of concern for radionuclide B})] + \text{etc} \dots \geq 1$

March 12, 2007

MEMORANDUM TO: Luis A. Reyes  
Executive Director for Operations

FROM: Annette L. Vietti-Cook, Secretary /RA/

SUBJECT: STAFF REQUIREMENTS - SECY-07-0011 - INTERIM  
IMPLEMENTATION OF FINGERPRINTING REQUIREMENTS IN  
SECTION 652 OF THE ENERGY POLICY ACT OF 2005

The Commission has approved the staff's plan to issue orders imposing fingerprinting requirements for individuals with unescorted access to radioactive material possessed by Security Order Licensees which includes licensees who (1) are licensed for a spent fuel storage facility, fuel cycle facility, or decommissioning reactor; or (2) possess and ship spent nuclear fuel. (Recommendation 1) These orders should serve as an interim step while the rule to require fingerprinting is developed and finalized.

The Commission has approved the staff's recommendation to issue a generic communication to NRC and Agreement State Increase Control requirement recipients and known non-manufacturer and distributor service providers. (Recommendation 4) The generic communication should be prepared in close coordination with the Agreement States, to ensure there is a full and common understanding of the path forward among the affected programs and that potentially affected licensees in the States promptly receive the generic communication. Subsequently, the staff should issue impose on non-manufacturer and distributor service provider licensees that prefer unescorted access the same trustworthiness and reliability requirements and fingerprinting requirements that manufacturer and distributor service provider licensees must currently meet for unescorted access. The staff should develop a more formal method to identify non-manufacturer and distributor service providers that have the same intimate knowledge of risk-significant sources as manufacturer and distributor providers.

The Commission has disapproved the staff's proposal to not impose fingerprinting requirements by order on licensees required to implement increased controls while the staff develops the rulemaking. (Recommendation 2) The staff should expeditiously engage the Agreement States to develop a plan to require fingerprinting for this group of licensees under public health and safety, with a goal of issuing the requirements as enhancements to the Increased Controls within six months. The staff should keep the Commission fully informed of the progress and any significant difficulties.

The Commission has disapproved the staff's proposal to issue an immediately effective rule to exempt research, and test reactor (RTR) licensees from fingerprinting requirements while the staff develops a second rulemaking to define "unescorted access" as it would apply to RTR licensees. (Recommendation 3) Instead, the staff should expeditiously develop a definition of "unescorted access" that would apply to RTR licensees and issue orders to RTR licensees to require fingerprinting for individuals that fall within this definition. To ensure compliance with Section 104c. of the Atomic Energy Act to impose only the minimum amount of regulation needed for RTR licensees, the orders should require fingerprinting only for individuals with unescorted access to risk-significant areas or materials within the facilities. The staff should then proceed with the rulemaking to determine if additional personnel should be fingerprinted.

For future Commission papers involving State issues, the staff should address States' views in the coordination section of the paper either by noting the Organization of Agreement States and/or Conference of Radiation Control Program Directors views or describing the interactions, if any, that have taken place. In a small number of cases information cannot be shared with the states before it is provided to the Commission for deliberation. In these cases a brief statement as to why it was not coordinated with the states would be appropriate.

The Commission has no objection to sharing this SRM with Agreement States and affected licensees with appropriate controls.

cc: Chairman Klein  
Commissioner McGaffigan  
Commissioner Merrifield  
Commissioner Jaczko  
Commissioner Lyons  
OGC  
CFO  
OCA



Recently Issued FSME/NMSS Generic Communications

Date	GC No.	Subject	Addressees
02/02/07	IN-07-03	Reportable Medical Events Involving Patients Receiving Dosages of Sodium Iodide Iodine-131 less than the Prescribed Dosage Because of Capsules Remaining in Vials after Administration	All U.S. Nuclear Regulatory Commission medical use licensees and NRC Master Materials Licensees. All Agreement State Radiation Control Program Directors and State Liaison Officers.
02/28/07	IN-07-08	Potential Vulnerabilities of Time-reliant Computer-based Systems Due to Change in Daylight Saving Time Dates	All U. S. Nuclear Regulatory Commission licensees and all Agreement State Radiation Control Program Directors and State Liaison Officers.
03/15/07	IN-07-10	Yttrium-90 Theraspheres® and Sirspheres® Impurities	All U.S. Nuclear Regulatory Commission (NRC) Medical Licensees and NRC Master Materials Licensees. All Agreement State Radiation Control Program Directors and State Liaison Officers.
04/04/07	IN-07-13	Use of As-Found Conditions to Evaluate Criticality-related Process Upsets at Fuel Cycle Facilities	All licensees authorized to possess a critical mass of special nuclear material.
03/01/07	RIS-07-03	Ionizing Radiation Warning Symbol	All U.S. Nuclear Regulatory Commission licensees and certificate holders. All Radiation Control Program Directors and State Liaison Officers
03/09/07	RIS-07-04	Personally Identifiable Information Submitted to the U.S. Nuclear Regulatory Commission	All holders of operating licenses for nuclear power reactors and holders of and applicants for certificates for reactor designs. All licensees, certificate holders, applicants, and other entities subject to regulation by the U.S. Nuclear Regulatory Commission (NRC) of the use of source, byproduct, and special nuclear material
03/20/07	RIS-07-05	Status and Plans for Implementation of NRC Regulatory Authority for Certain Naturally-occurring and Accelerator-produced Radioactive Material	All NRC materials licensees, Radiation Control Program Directors, State Liaison Officers, and NRC's Advisory Committee on the Medical Uses of Isotopes

Date	GC No.	Subject	Addressees
04/05/07	RIS-07-07	Clarification of Increased Controls for Licensees That Possess Collocated Radioactive Material During Transportation Activities	All U.S. Nuclear Regulatory Commission (NRC) licensees issued NRC's Order Imposing Increased Controls and all Radiation Control Program Directors and State Liaison Officers

Note: A full listing of generic communications may be viewed at the NRC public website at the following address: <http://www.nrc.gov/Electronic Reading Room/Document Collections/Generic Communications>.