



NUCLEAR REGULATORY COMMISSION

[NRC-2013-0222]

In the Matter of)
)
Certain Licensees Authorized to) **EA-13-150**
Possess and Transfer Items)
Containing Radioactive Material)
Quantities of Concern)

Order Imposing Additional Security Measures
(Effective Immediately)

I.

The Licensee identified in Attachment A¹ to this Order holds a license issued by the U.S. Nuclear Regulatory Commission (NRC) or an Agreement State, in accordance with the Atomic Energy Act of 1954, as amended, and 10 CFR parts 30, 32, 70, and 71, or equivalent Agreement State regulations. The license authorizes the Licensee to possess and transfer items containing radioactive material quantities of concern. This Order is being issued to the Licensee identified in Attachment A to this Order who may transport radioactive material quantities of concern under the NRC's authority to protect the common defense and security, which has not been relinquished to the Agreement States. The Order requires compliance with specific additional security measures to enhance the security for transport of certain radioactive material quantities of concern.

¹ Attachment A contains sensitive information and will not be released to the public.

II.

On September 11, 2001, terrorists simultaneously attacked targets in New York, NY, and near Washington, DC, utilizing large commercial aircraft as weapons. In response to the attacks and intelligence information subsequently obtained, the Commission issued a number of Safeguards and Threat Advisories to Licensees in order to strengthen Licensees' capabilities and readiness to respond to a potential attack on NRC regulated activity. The Commission has also communicated with other Federal, State and local government agencies and industry representatives to discuss and evaluate the current threat environment in order to assess the adequacy of the current security measures. In addition, the Commission commenced a comprehensive review of its safeguards and security programs and requirements.

As a result of its initial consideration of current safeguards and security requirements, as well as a review of information provided by the intelligence community, the Commission has determined that certain security measures are required to be implemented by Licensees as prudent, interim measures to address the current threat environment in a consistent manner. Therefore, the Commission is imposing requirements, as set forth in Attachment B² of this Order, on the Licensee identified in Attachment A of this Order. These additional security measures, which supplement existing regulatory requirements, will provide the Commission with reasonable assurance that the common defense and security continue to be adequately protected in the current threat environment. Attachment C of this Order contains the requirements for fingerprinting and criminal history record checks for individuals when the Licensee's reviewing official is determining access to Safeguards Information or unescorted access to the radioactive materials. These requirements will remain in effect until the Commission determines otherwise.

² Attachment B contains some requirements that are SAFEGUARDS INFORMATION, and cannot be released to the public. The remainder of the requirements contained in Attachment B that are not SAFEGUARDS INFORMATION will be released to the public.

Some measures may not be possible or necessary for all shipments of radioactive material quantities of concern, or may need to be tailored to accommodate the Licensee's specific circumstances to achieve the intended objectives and avoid any unforeseen effect on the safe transport of radioactive material quantities of concern.

In light of the continuing threat environment, the Commission concludes that these security measures must be embodied in an Order, consistent with the established regulatory framework. The Commission has determined that some of the security measures contained in Attachment B of this Order contain Safeguards Information and will not be released to the public as per NRC's "Order Imposing Requirements for the Protection of Certain Safeguards Information" (EA-13-040), issued specifically to the Licensee identified in Attachment A to this Order. Access to Safeguards Information is limited to those persons who have established a need-to-know the information, are considered to be trustworthy and reliable, and have been fingerprinted and undergone a Federal Bureau of Investigation (FBI) identification and criminal history records check in accordance with the NRC's "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information" (EA-13-041). A need-to-know means a determination by a person having responsibility for protecting Safeguards Information that a proposed recipient's access to Safeguards Information is necessary in the performance of official, contractual, or Licensee duties of employment. Individuals who have been fingerprinted and granted access to Safeguards Information by the reviewing official under the NRC's "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information" (EA-13-041) do not need to be fingerprinted again for purposes of being considered for unescorted access.

This Order also requires that a reviewing official must consider the results of the FBI criminal history records check in conjunction with other applicable requirements to determine

whether an individual may be granted or allowed continued unescorted access. The reviewing official may be one that has previously been approved by NRC in accordance with the “Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information” (EA-13-041). Licensees may nominate additional reviewing officials for making unescorted access determinations in accordance with NRC Order EA-13-041. The nominated reviewing officials must have access to Safeguards Information or require unescorted access to the radioactive material as part of their job duties.

To provide assurance that Licensees are implementing prudent measures to achieve a consistent level of protection to address the current threat environment, the Licensee identified in Attachment A to this Order shall implement the requirements identified in Attachments B and C to this Order. In addition, pursuant to 10 CFR 2.202, I find that in light of the common defense and security matters identified above, which warrant the issuance of this Order, the public health and safety require that this Order be immediately effective.

III.

Accordingly, pursuant to Sections 53, 63, 81, 147, 149, 161b, 161i, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission’s regulations in 10 CFR 2.202 and 10 CFR parts 30, 32, 70, and 71, IT IS HEREBY ORDERED, **EFFECTIVE IMMEDIATELY**, THAT THE LICENSEE IDENTIFIED IN ATTACHMENT A TO THIS ORDER SHALL COMPLY WITH THE FOLLOWING:

- A. The Licensee shall, notwithstanding the provisions of any Commission or Agreement State regulation or license to the contrary, comply with the requirements described in Attachments B and C to this Order. The Licensee shall immediately start implementation

of the requirements in Attachments B and C to the Order and shall complete implementation before the first shipment of radioactive material quantities of concern.

- B. 1. The Licensee shall, within **twenty (20) days** of the date of this Order, notify the Commission, (1) if it is unable to comply with any of the requirements described in Attachments B or C, (2) if compliance with any of the requirements is unnecessary in its specific circumstances, or (3) if implementation of any of the requirements would cause the Licensee to be in violation of the provisions of any Commission or Agreement State regulation or its license. The notification shall provide the Licensees' justification for seeking relief from or variation of any specific requirement.
2. If the Licensee considers that implementation of any of the requirements described in Attachments B or C to this Order would adversely impact the safe transport of radioactive material quantities of concern, the Licensee must notify the Commission, within **twenty (20) days** of this Order, of the adverse safety impact, the basis for its determination that the requirement has an adverse safety impact, and either a proposal for achieving the same objectives specified in the Attachments B or requirement in question, or a schedule for modifying the activity to address the adverse safety condition. If neither approach is appropriate, the Licensee must supplement its response to Condition B.1 of this Order to identify the condition as a requirement with which it cannot comply, with attendant justifications as required in Condition B.1.
- C. 1. In accordance with the NRC's "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information" (EA-13-041) only the NRC-approved reviewing official shall review results from an FBI criminal

history records check. The Licensee may use a reviewing official previously approved by the NRC as its reviewing official for determining access to Safeguards Information or the Licensee may nominate another individual specifically for making unescorted access to radioactive material determinations, using the process described in EA-13-041. The reviewing official must have access to Safeguards Information or require unescorted access to the radioactive material as part of their job duties. The reviewing official shall determine whether an individual may have, or continue to have, unescorted access to radioactive materials that equal or exceed the quantities in Attachment B to this Order. Fingerprinting and the FBI identification and criminal history records check are not required for individuals exempted from fingerprinting requirements under 10 CFR 73.61 (72 FR 4945; February 2, 2007). In addition, individuals who have a favorably decided U.S. Government criminal history records check within the last five (5) years, or have an active federal security clearance (provided in each case that the appropriate documentation is made available to the Licensee's reviewing official), have satisfied the Atomic Energy Act of 1954, as amended, fingerprinting requirement and need not be fingerprinted again for purposes of being considered for unescorted access.

2. No person may have access to Safeguards Information or unescorted access to radioactive materials if the NRC has determined, in accordance with its administrative review process based on fingerprinting and an FBI identification and criminal history records check, either that the person may not have access to Safeguards Information or that the person may not have unescorted access to a utilization facility, or radioactive material or other property subject to regulation by the NRC.

- D. Fingerprints shall be submitted and reviewed in accordance with the procedures described in Attachment C to this Order. Individuals who have been fingerprinted and granted access to Safeguards Information by the reviewing official under Order EA-13-041, do not need to be fingerprinted again for purposes of being considered for unescorted access.
- E. The Licensee may allow any individual who currently has unescorted access to radioactive materials, in accordance with this Order, to continue to have unescorted access without being fingerprinted, pending a decision by the reviewing official (based on fingerprinting, an FBI criminal history records check and a trustworthy and reliability determination) that the individual may continue to have unescorted access to radioactive materials that equal or exceed the quantities listed in Attachment B to this Order. The Licensee shall complete implementation of the requirements of Attachments B and C to this Order before the first shipment of radioactive material quantities of concern.
- F. 1. The Licensee shall, **within twenty (20) days** of the date of this Order, submit to the Commission a schedule for completion of each requirement described in Attachments B and C.
2. The Licensee shall report to the Commission when they have achieved full compliance with the requirements described in Attachments B and C.
- G. Notwithstanding any provisions of the Commission's or an Agreement State's regulations to the contrary, all measures implemented or actions taken in response to this Order shall be maintained until the Commission determines otherwise.

Licensee response to Conditions B.1, B.2, F.1, and F.2 above shall be submitted to the Director, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. In addition, Licensee submittals that contain specific physical protection or security information considered to be Safeguards Information shall be put in a separate enclosure or attachment and, marked as "SAFEGUARDS INFORMATION - MODIFIED HANDLING" and mailed (no electronic transmittals, i.e., no e-mail or FAX) to the NRC.

The Director, Office of Federal and State Materials and Environmental Management Programs, may, in writing, relax or rescind any of the above conditions upon demonstration of good cause by the Licensee.

IV.

In accordance with 10 CFR 2.202, the Licensee must, and any other person adversely affected by this Order may, submit an answer to this Order within twenty (20) days of the date of this Order. In addition, the Licensee and any other person adversely affected by this Order may request a hearing of this Order within twenty (20) days of the date of the Order. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made, in writing, to the Director, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and include a statement of good cause for the extension.

The answer may consent to this Order. If the answer includes a request for a hearing, it shall, under oath or affirmation, specifically set forth the matters of fact and law on which the Licensee relies and the reasons as to why the Order should not have been issued. If a person other than the Licensee requests a hearing, that person shall set forth with particularity the

manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.309(d).

All documents filed in the NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC's E-Filing rule (72 FR 49139; August 28, 2007). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at hearing.docket@nrc.gov, or by telephone at 301-415-1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a request or petition for hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/apply-certificates.html>. System requirements for accessing the E-Submittal server are detailed in NRC's "Guidance for Electronic Submission,"

which is available on the agency's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. Participants may attempt to use other software not listed on the Web site, but should note that the NRC's E-Filing system does not support unlisted software, and the NRC Meta System Help Desk will not be able to offer assistance in using unlisted software.

If a participant is electronically submitting a document to the NRC in accordance with the E-Filing rule, the participant must file the document using the NRC's online, Web-based submission form. In order to serve documents through the Electronic Information Exchange System, users will be required to install a Web browser plug-in from the NRC's Web site. Further information on the Web-based submission form, including the installation of the Web browser plug-in, is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>.

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a request for a hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with the NRC guidance available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. A filing is considered complete at the time the documents are submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing

request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the agency's adjudicatory E-Filing system may seek assistance by contacting the NRC Meta System Help Desk through the "Contact Us" link located on the NRC's Web site at <http://www.nrc.gov/site-help/e-submittals.html>, by e-mail at MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Meta System Help Desk is available between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland, 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <http://ehd1.nrc.gov/ehd/>, unless excluded pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

If a hearing is requested by the Licensee or a person whose interest is adversely

affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held the issue to be considered at such hearing shall be whether this Order should be sustained.

Pursuant to 10 CFR 2.202(c)(2)(i), the Licensee may, in addition to requesting a hearing, at the time the answer is filed or sooner, move the presiding officer to set aside the immediate effectiveness of the Order on the ground that the Order, including the need for immediate effectiveness, is not based on adequate evidence but on mere suspicion, unfounded allegations, or error.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section III above shall be final twenty (20) days from the date of this Order without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section III shall be final when the extension expires if a hearing request has not been received. AN ANSWER OR A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

Dated this 27th day of August 2013.

FOR THE NUCLEAR REGULATORY COMMISSION

Brian E. Holian, Acting Director
Office of Federal and State Materials
and Environmental Management Programs

Attachment A: List of Licensees – Redacted

**Attachment B: Additional Security Measures for Transportation of Radioactive Material
Quantities of Concern – Revision 3**

A. General Basis Criteria

These Additional Security Measures (ASMs) are established to delineate licensee responsibility in response to the current threat environment. The following security measures apply to the Nuclear Regulatory Commission (NRC) and Agreement States licensees, who ship Radioactive Material Quantities of Concern (RAMQC) as defined in Section A .1. Shipments of RAMQC that do not fall within the NRC’s jurisdiction under the Atomic Energy Act of 1954, as amended, are not subject to the provisions of these ASMs.

1. Licensees who are subject to this Order shall ensure that the requirements listed in Section B below are in effect when they ship radioactive materials that meet the following criterion:
 - a. Radionuclides listed in Table A, greater than or equal to the quantities specified, or
 - b. For mixtures of radionuclides listed in Table A, the sum of the fractions of those radionuclides if greater than or equal to 1, or
 - c. For shipments of spent nuclear fuel containing greater than or equal to 1000 Terabecquerels (TBq) (27,000 Curies) but less than or equal to 100 grams of spent nuclear fuel.

For shipments containing greater than 100 grams of spent nuclear fuel, licensees shall follow the ASMs for “Transportation of Spent Nuclear Fuel Greater than 100 Grams,” dated October 3, 2002.

These ASMs supersede Safeguards Advisories SA-01-01, Rev. 1, and SA-03-02. For radioactive materials shipments containing radionuclides not addressed by this ASM

guidance will be provided by Safeguards Advisory.

2. The requirements of these ASMs apply to a conveyance (i.e., the requirements apply irrespective of whether the RAMQC is shipped in a single package or in multiple packages in a single conveyance).
3. Licensees are not responsible for complying with the requirements of these ASMs if a carrier aggregates, during transport or storage incident to transport, radioactive material from two or more conveyances from separate licensees which individually do not exceed the limits of Paragraph A.1. but which together meet or exceed any of the criteria in Paragraph A.1.
4. The requirements of these ASMs only apply to RAMQC shipments using highway or rail modes of transportation. For multi-mode shipments, the requirements of these ASMs apply only to the portion of shipments that are made using highway or rail modes of transportation, as appropriate.
5. For domestic highway and rail shipments of materials in quantities greater than or equal to the quantities in Paragraph A.1, per conveyance, the licensee shall ensure that:
 - a. Only carriers are used which:
 1. Use established package tracking systems,
 2. Implement methods to assure trustworthiness and reliability of personnel associated with the transportation of RAMQC,
 3. Maintain constant control and/or surveillance during transit, and
 4. Have the capability for immediate communication to summon appropriate response or assistance.
 - b. The licensee shall verify and document that the carrier employs the measures listed above.

6. The preplanning, coordination, and tracking requirements of these ASMs are intended to reduce unnecessary delays and shipment duration and to facilitate the transfer of the RAMQC shipment and any escorts at State borders.
7. Unless specifically noted otherwise, the requirements of these ASMs do not apply to local law enforcement agencies (LLEA) personnel performing escort duties.
8. The requirements of these ASMs apply to RAMQC domestic shipments within the United States (U.S.), imports into the U.S., or exports from the U.S. The requirements of these ASMs do not apply to transshipments through the U.S. Licensees are responsible for complying with the requirements of Section B for the highway and rail shipment portion of an import or export which occurs inside of the U.S.

For import and export RAMQC shipments, while located at the port or shipments on U.S. navigable waterways, the U.S. Coast Guard Maritime Transportation security regulations will be in effect and these ASMs are not applicable. For RAMQC shipments while located at the air freight terminal, security requirements will be performed in accordance with the Transportation Security Administration security regulations.

For import and export RAMQC shipments, the licensee shall ensure that the requirements of these ASMs are implemented after the transportation package has been loaded onto the highway or rail vehicle (except for the advance notification requirements in section B.4) and the package begins the domestic portion of the shipment to or from the U.S. port of entry [i.e., the package(s) departs for or from the port of entry facility or the airfreight terminal].

B. Specific Requirements

Licensees who ship RAMQC in quantities that meet the criteria of Paragraph A.1. shall ensure that any carriers used have developed and implemented transportation security plans

that embody the additional security measures imposed by this Order.

1 Licensee Verification

Before transfer of radioactive materials in quantities which meet the criterion of Paragraph A.1, per conveyance, the licensee shall:

- a. For new recipient(s), verify that the intended recipient's license authorizes receipt of the regulated material by direct contact with the regulatory authority that issued the license (NRC Region or Agreement State) prior to transferring the material,
- b. Verify the validity of unusual orders or changes (if applicable) that depart from historical patterns of ordering by existing recipients,
- c. Verify the material is shipped to an address authorized in the license and that the address is valid,
- d. Verify the address for a delivery to a temporary job site is valid,
- e. Document the verification and validation process, and
- f. Coordinate departure and arrival times with the recipient.

2. Background Investigations

- a. Background investigations are intended to provide high assurance that individuals performing assigned duties associated with the transport of RAMQC or access to sensitive information associated with such transport are trustworthy and reliable, and do not constitute an unreasonable risk to the common defense and security, including the potential to commit radiological sabotage.
- b. For highway shipments only, the licensee shall ensure background investigations for all drivers, accompanying individuals, communications center managers, and other appropriate communications center personnel have been performed. The

NRC only has the authority to impose a Federal Bureau of Investigation (FBI) criminal history check, which includes fingerprinting, on those individuals who seek access to Safeguards Information (SGI) or unescorted access to licensed material.

- c. For rail shipments, the licensee shall ensure background investigations for employees filling the positions of communications center managers and other appropriate communications center personnel have been performed. The NRC only has the authority to impose a FBI criminal history check, which includes fingerprinting, on those individuals who seek access to SGI or unescorted access to licensed material.
- d. Licensees shall document the basis for concluding that there is high assurance that individuals granted access to safeguards information or unescorted access to licensed material are trustworthy and reliable, and do not constitute an unreasonable risk for malevolent use of the regulated material. "Access" means that an individual could exercise some physical control over the material or device containing radioactive material.
 - (1) The trustworthiness, reliability, and verification of an individual's true identity shall be determined based on a background investigation. The background investigation shall address at least the past three (3) years, and as a minimum, include fingerprinting and an FBI criminal history check, verification of employment history, education, employment eligibility and personal references. If an individual's employment has been less than the required three (3) years period, educational references may be used in lieu of employment history.

- (2) Fingerprints shall be submitted and reviewed in accordance with the procedures described in Attachment C to this Order.
 - (3) A reviewing official that the licensee nominated and has been approved by the NRC, in accordance with NRC "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information," may continue to make trustworthiness and reliability determinations. The licensee may also nominate another individual specifically for making unescorted access determinations using the process identified in the NRC "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Access to Safeguards Information." The nominated reviewing official must have access to Safeguards Information or require unescorted access to the radioactive material as part of their job duties.
- e. Licensees background investigation requirements may also be satisfied for an individual that has:
- (1) current access authorization permitting unescorted access to a power reactor facility or access to Safeguards Information,
 - (2) current U.S. Government-issued security clearance (based upon a national agency check, at a minimum), or
 - (3) satisfactorily completed a background investigation under an NRC-approved access authorization program.
- f. Individuals shall not perform assigned duties associated with the transport of RAMQC until the licensee has confirmed that a determination of trustworthiness and reliability, based on the appropriate background investigation requirements

in B.2.d. and B.2.e., has been performed and documented.

3. Preplanning and Coordination

- a. As part of the shipment planning process, the licensee shall ensure that appropriate security information is provided to and is coordinated with affected States through which the shipment will pass to ensure minimal delays. These discussions shall include whether a State intends to provide escorts for a shipment.
- b. The licensee shall ensure States are provided with position information on a shipment (see Paragraph B. 5.a), if requested and practical.
- c. For shipments by highway, the licensee's coordination required in Paragraph B.3.a. shall include identification of Highway Route Controlled Quantity (HRCQ) shipments of material and safe havens.¹

4. Notifications

- a. The licensee shall ensure an advance notification of a shipment is provided, or of a series of shipments, of RAMQC to the NRC. The licensee shall ensure the notification is submitted sufficiently in advance to ensure it is received by NRC at least seven (7) days, where practicable, before the shipment commences

¹ In general, a safe haven is a readily recognizable and readily accessible site at which security is present or from which, in the event of an emergency, the transport crew can notify and wait for the local law enforcement authorities (LLEA). The following criteria are used by the NRC to determine the safe haven sites and licensees should use these criteria in identifying safe havens for shipments subject to this Order:

- Close proximity to the route, i.e., readily available to the transport vehicle.
- Security from local, State, or Federal assets is present or is accessible for timely response.
- Site is well lit, has adequate parking, and can be used for emergency repair or wait for LLEA response on a 24-hours-a-day basis.
- Have additional telephone facilities should the communications system of the transport vehicle not function properly.
- Possible safe haven sites include:
 - Military installations and other Federal sites having significant security assets; secure company terminals; State weigh stations; truck stops with secure areas; and LLEA sites, including State police barracks.

physically within the U.S.

For written notifications, the notice should be addressed to: (10 CFR 2.390)

U.S. Nuclear Regulatory Commission

ATTN: Director, Division of Nuclear Security

M/S: T-4-D-8

Office of Nuclear Security and Incident Response

11555 Rockville Pike

Rockville, MD 20852-2738

Notifications may also be submitted electronically via e-mail to

RAMQC_SHIPMENTS@nrc.gov or via fax to 301-816-5151. (10 CFR 2.390)

- b. The advance notification shall contain the following information:
- (1) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (2) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (3) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (4) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (5) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (6) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

be publicly disclosed.]

- (7) **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

Refer to Paragraph B.7.c. for determination of information designation of advance notifications during preplanning, coordinating, and reporting information activities.

- c. The licensee shall ensure the information required by Paragraph B.4.b. is provided to each State through which the shipment will pass. The licensee shall ensure that the notification is received at least seven (7) days, where practicable, before the U.S. highway or railroad portion of a shipment commences.

- d. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

5. Communications

- a. (1) For highway shipments, monitor each RAMQC shipment with a telemetric position monitoring system that communicates with a communication center or is equipped with an alternative tracking system that communicates position information to a communications center.
- (2) For rail shipments, monitor each RAMQC shipment with either: (i) a telemetric position monitoring system that communicates with a licensee or third-party communication center, (ii) a railroad track-side car location monitoring systems tracking system that relays a car's position to a railroad communications center (which can provide position information to any separate licensee communications center per Paragraph B.5.b), or (iii) alternate licensee monitoring system. Additionally, licensees may use

a railroad communications center to monitor the rail portion of a shipment, in lieu of using a separate communications center.

- b. (1) For highway shipments, provide for a communication center that has the capability to continuously and actively monitor in-progress shipments to ensure positive confirmation of the location, status, and control over the shipment and implement pre-planned procedures in response to deviations from the authorized route or notification of actual, attempted, or suspicious activities related to theft, loss, diversion, or radiological sabotage of a shipment. These procedures shall include identification of the designated LLEA contact(s) along the shipment route.
- (2) For rail shipments, provide for a communication center that has the capability to periodically monitor in-progress shipments to ensure positive confirmation of the location of the shipment and implement pre-planned procedures in response to notification of actual, attempted, or suspicious activities related to theft, loss, diversion, or radiological sabotage of a shipment. These procedures shall include identification of the designated LLEA contact(s) along the shipment route. Licensees may use a railroad communications center in lieu of establishing a separate communications center.
- c. (1) For highway shipments, ensure that a two-way telecommunication capability is available for the transport and any escort vehicles allowing them to communicate with each other with the communications center, and with designated LLEAs along the route. The communications center must be capable of contacting the designated authorities along the

shipment route.

- (2) For rail shipments, ensure that a two-way telecommunication capability is available between the train and the communications center and between any escort vehicles and the communications center. The communications center must be capable of contacting the designated authorities along the shipment route.
- d. A licensee may utilize a carrier or third-party communications center in lieu of establishing such a facility itself. A commercial communications center must have the capabilities, necessary procedures, training, and personnel background investigations to meet the applicable requirements of these ASMs.
- e.
 - (1) For highway shipments, provide a backup means for the transport and any escort vehicle to communicate with the communications center, using a diverse method not subject to the same interference factors as the primary capability selected for compliance with Paragraph B.5.c. (e.g., two-way radio or portable telephone).
 - (2) For rail shipments, provide a backup means for the train to talk with the communications center, using a diverse method not subject to the same interference factors as the primary capability selected for compliance with Paragraph B.5.c. (e.g., two-way radio or portable telephone).
- f. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**
 - (1) Not later than one hour after the time when, through the course of the investigation, it is determined the shipment is lost or stolen, the licensee shall ensure the appropriate local law enforcement agency, the NRC

Operations Center at 301-816-5100, and the appropriate Agreement State regulatory agency, if any, are notified.

- (2) If after 24 hours of initiating the investigation, the radioactive material cannot be located, licensee shall ensure the NRC's Operations Center and, for Agreement State licensees, the appropriate Agreement State regulatory agency are immediately notified.

g. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

6. Drivers and Accompanying Individuals

a. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

b. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

c. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

d. **[This paragraph contains SAFEGUARDS INFORMATION and will not be publicly disclosed.]**

7. Procedures, Training, and Control of Information

- a. (1) For highway shipments the licensee shall ensure that normal and contingency procedures have been developed, including, for example: notifications, communications protocols, loss of communications, and response to actual, attempted, or suspicious activities related to theft, loss, diversion, or radiological sabotage of a shipment. Communication protocols must include a strategy for use of authentication and duress

codes, provision for refueling or other stops, detours, and locations where communication is expected to be temporarily lost.

(2) For rail shipments, the licensee shall ensure that normal and contingency procedures have been developed, including, for example: notifications, communications protocols, loss of communications, and response to actual, attempted, or suspicious activities related to theft, loss, diversion, or radiological sabotage of a shipment. Communication protocols must include a strategy for use of authentication and duress codes, provision for stops, and locations where communication is expected to be temporarily lost.

b. (1) For highway shipments, the licensee shall ensure that personnel, including drivers, accompanying individuals, responsible communication center managers, and other appropriate communication center personnel are trained in and understand the normal and contingency procedures.

(2) For rail shipments, the licensee shall ensure that personnel, including the appropriate train crew members and responsible railroad communication center managers, and other appropriate railroad communication center personnel are trained in and understand the normal and contingency procedures.

c. Information to be protected as Safeguards Information – Modified Handling, shall include, but is not limited to:

(1) Integrated transportation physical security plans.

(2) Schedules and itineraries for shipments. For shipments that are not inherently self disclosing, schedule and itineraries information may be

decontrolled 2 days after a shipment is completed. For shipments that are inherently self disclosing, schedule may be released as necessary after departure.

- (3) Details of alarm and communications systems, communication protocols and duress codes, and security contingency response procedures.
- (4) Arrangements with designated LLEA (i.e., Federal, State Police, and/or local police departments) and information on whether a State intends to provide armed escorts for a shipment.

For preplanning; coordinating, for example with States organizations and carriers; reporting information as described in B.1., B.4., and B.5. related to shipments of radioactive material, and the radionuclides identified in Paragraph A.1, the licensee shall ensure the information is protected at least as sensitive information (for example, proprietary or business financial information). Licensees shall ensure access is restricted to this information to those licensee and contractor personnel with a need to know. Licensees shall ensure all parties receiving this information protect it similarly. Information may be transmitted either in writing or electronically and shall be marked as "Sensitive Information - Not for Public Disclosure."

C. Implementation Schedule

- 1. Licensees shall implement the requirements of this ASM within 180 days of the date of issuance of the Order or before the first shipment of RAMQC, whichever is sooner.

Table A: Radionuclides of Concern

| Radionuclide | Quantity of Concern ² (TBq) | Quantity of Concern ³ (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 |
| Ra-226 | 0.4 | 11 |
| 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 ⁴ | See footnote below ⁵ | |

² 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.

³ The primary values used for compliance with this Order are Terabecquerels (TBq). The curie (Ci) values are rounded to two significant figures for informational purposes only.

⁴ 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.

⁵ 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. [(aggregated source activity for radionuclide A) ÷ (quantity of concern for radionuclide A)] + [(aggregated source activity for radionuclide B) ÷ (quantity of concern for radionuclide B)] + etc..... ≥ 1 .

Guidance for Aggregation of Sources

The NRC supports the use of the International Atomic Energy Association's (IAEA) source categorization methodology as defined in IAEA Safety Standards Series No. RS-G-1.9, "Categorization of Radioactive Sources," (2005) (see http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf) and as endorsed by the agency's Code of Conduct for the Safety and Security of Radioactive Sources, January 2004 (see http://www-pub.iaea.org/MTCD/publications/PDF/Code-2004_web.pdf). The Code defines a three-tiered source categorization scheme. Category 1 corresponds to the largest source strength (equal to or greater than 100 times the quantity of concern values listed in Table 1.) and Category 3, the smallest (equal or exceeding one-tenth the quantity of concern values listed in Table 1.). Additional security measures apply to sources that are equal to or greater than the quantity of concern values listed in Table 1, plus aggregations of smaller sources that are equal to or greater than the quantities in Table 1. Aggregation only applies to sources that are collocated.

Licensees who possess individual sources in total quantities that equal or exceed the Table 1 quantities are required to implement additional security measures. Where there are many small (less than the quantity of concern values) collocated sources whose total aggregate activity equals or exceeds the Table 1 values, licensees are to implement additional security measures.

Some source handling or storage activities may cover several buildings, or several locations within specific buildings. The question then becomes, "When are sources considered collocated for purposes of aggregation?" For purposes of the additional controls, sources are considered collocated if breaching a single barrier (e.g., a locked door at the entrance to a storage room) would allow access to the sources. Sources behind an outer barrier should be

aggregated separately from those behind an inner barrier (e.g., a locked source safe inside the locked storage room). However, if both barriers are simultaneously open, then all sources within these two barriers are considered to be collocated. This logic should be continued for other barriers within or behind the inner barrier.

The following example illustrates the point: A lockable room has sources stored in it. Inside the lockable room, there are two shielded safes with additional sources in them. Inventories are as follows:

The room has the following sources outside the safes: Cf-252, 0.12 TBq (3.2 Ci); Co-60, 0.18 TBq (4.9 Ci), and Pu-238, 0.3 TBq (8.1 Ci). Application of the unity rule yields: $(0.12 \div 0.2) + (0.18 \div 0.3) + (0.3 \div 0.6) = 0.6 + 0.6 + 0.5 = 1.7$. Therefore, the sources would require additional security measures. Shielded safe #1 has a 1.9 TBq (51 Ci) Cs-137 source and a 0.8 TBq (22 Ci) Am-241 source. In this case, the sources would require additional security measures, regardless of location, because they each exceed the quantities in Table 1. Shielded safe #2 has two Ir-192 sources, each having an activity of 0.3 TBq (8.1 Ci). In this case, the sources would not require additional security measures while locked in the safe. The combined activity does not exceed the threshold quantity 0.8 TBq (22 Ci).

Because certain barriers may cease to exist during source handling operations (e.g., a storage location may be unlocked during periods of active source usage), licensees should, to the extent practicable, consider two modes of source usage — “operations” (active source usage) and “shutdown” (source storage mode). Whichever mode results in the greatest inventory (considering barrier status) would require additional security measures for each location.

Use the following method to determine which sources of radioactive material require implementation of the Additional Security Measures:

- Include any single source equal to or greater than the quantity of concern in Table
- Include multiple collocated sources of the same radionuclide when the combined quantity equals or exceeds the quantity of concern
- For combinations of radionuclides, include multiple collocated sources of different radionuclides when the aggregate quantities satisfy the following unity rule:
$$[(\text{amount of radionuclide A}) \div (\text{quantity of concern of radionuclide A})] + [(\text{amount of radionuclide B}) \div (\text{quantity of concern of radionuclide B})] + \text{etc.} \dots \geq 1$$

Attachment C: Requirements for Fingerprinting and Criminal History

Checks of Individuals When Licensee's Reviewing Official is Determining Access to Safeguards Information or Unescorted Access to Radioactive Materials

General Requirements

Licensees shall comply with the following requirements of this attachment.

1. Each Licensee subject to the provisions of this attachment shall fingerprint each individual who is seeking or permitted access to Safeguards Information (SGI) or unescorted access to radioactive material quantities of concern (RAMQC). The Licensee shall review and use the information received from the Federal Bureau of Investigation (FBI) and ensure that the provisions contained in this Order and this attachment are satisfied.

2. The Licensee shall notify each affected individual that the fingerprints will be used to secure a review of his/her criminal history record and inform the individual of the procedures for revising the record or including an explanation in the record, as specified in the "Right to Correct and Complete Information" section of this attachment.
3. Fingerprints for access to SGI or unescorted access need not be taken if an employed individual (e.g., a Licensee employee, contractor, manufacturer, or supplier) is relieved from the fingerprinting requirement by 10 CFR 73.59 for access to SGI or 10 CFR 73.61 for unescorted access, has a favorably-decided U.S. Government criminal history check (e.g. National Agency Check, Transportation Worker Identification Credentials in accordance with 49 CFR Part 1572, Bureau of Alcohol Tobacco Firearms and Explosives background checks and clearances in accordance with 27 CFR Part 555, Health and Human Services security risk assessments for possession and use of select agents and toxins in accordance with 27 CFR Part 555, Hazardous Material security threat assessments for hazardous material endorsement to commercial drivers license in accordance with 49 CFR Part 1572, Customs and Border Protection's Free and Secure Trade Program⁶) within the last five (5) years, or has an active federal security clearance. Written confirmation from the Agency/employer which granted the federal security clearance or reviewed the criminal history check must be provided. The Licensee must retain this documentation for a period of three (3) years from the date the individual no longer requires access to SGI or unescorted access to radioactive materials associated with the Licensee's activities.

⁶ The FAST program is a cooperative effort between the Bureau of Customs and Border Protection and the governments of Canada and Mexico to coordinate processes for the clearance of commercial shipments at the U.S. – Canada and U.S. – Mexico borders. Participants in the FAST program, which requires successful completion of a background records check, may receive expedited entrance privileges at the northern and southern borders.

4. All fingerprints obtained by the Licensee pursuant to this Order must be submitted to the Commission for transmission to the FBI.
5. The Licensee shall review the information received from the FBI and consider it, in conjunction with the trustworthy and reliability requirements of this Order, in making a determination whether to grant, or continue to allow, access to SGI or unescorted access to radioactive materials.
6. The Licensee shall use any information obtained as part of a criminal history records check solely for the purpose of determining an individual's suitability for access to SGI or unescorted access to RAMQC.
7. The Licensee shall document the basis for its determination whether to grant, or continue to allow, access to SGI or unescorted access to RAMQC.

Prohibitions

1. A Licensee shall not base a final determination to deny an individual access to radioactive materials solely on the basis of information received from the FBI involving: an arrest more than one (1) year old for which there is no information of the disposition of the case, or an arrest that resulted in dismissal of the charge or an acquittal.

2. A Licensee shall not use information received from a criminal history check obtained pursuant to this Order in a manner that would infringe upon the rights of any individual under the First Amendment to the Constitution of the United States, nor shall the Licensee use the information in any way which would discriminate among individuals on the basis of race, religion, national origin, sex, or age.

Procedures for Processing Fingerprint Checks

1. For the purpose of complying with this Order, Licensees shall, using an appropriate method listed in 10 CFR 73.4, submit to the NRC's Division of Facility and Security, Mail Stop T-03B46M, one completed, legible standard fingerprint card (Form FD-258, ORIMDNRC000Z) or, where practicable, other fingerprint records for each individual seeking access to SGI or unescorted access to RAMQC, to the Director of the Division of Facility and Security, marked for the attention of the Division's Criminal History Program. Copies of these forms may be obtained by writing the Office of Information Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, by calling 1-630-829-9565, or by e-mail to forms.resource@nrc.gov. Practicable alternative formats are set forth in 10 CFR 73.4. The Licensee shall establish procedures to ensure that the quality of the fingerprints taken results in minimizing the rejection rate of fingerprint cards due to illegible or incomplete cards.

2. The NRC will review submitted fingerprint cards for completeness. Any Form FD-258 fingerprint record containing omissions or evident errors will be returned to the Licensee for corrections. The fee for processing fingerprint checks includes one re-submission if the initial submission is returned by the FBI because the fingerprint impressions cannot be classified. The one free re-submission must have the FBI Transaction Control Number reflected on the re-submission. If additional submissions are necessary, they will be treated as initial submittals and will require a second payment of the processing fee.

3. Fees for processing fingerprint checks are due upon application. Licensees shall submit payment with the application for processing fingerprints by corporate check, certified check, cashier's check, or money order, made payable to "U.S. NRC." [For guidance on making electronic payments, contact the Facility Security Branch, Division of Facility and Security, at 301-415-7513]. Combined payment for multiple applications is acceptable. The application fee

(currently \$26) is the sum of the user fee charged by the FBI for each fingerprint card or other fingerprint record submitted by the NRC on behalf of a Licensee, and an NRC processing fee, which covers administrative costs associated with NRC handling of Licensee fingerprint submissions. The Commission will directly notify Licensees who are subject to this regulation of any fee changes.

4. The Commission will forward to the submitting Licensee all data received from the FBI as a result of the Licensee's application(s) for criminal history checks, including the FBI fingerprint record.

Right to Correct and Complete Information

1. Prior to any final adverse determination, the Licensee shall make available to the individual the contents of any criminal records obtained from the FBI for the purpose of assuring correct and complete information. Written confirmation by the individual of receipt of this notification must be maintained by the Licensee for a period of one (1) year from the date of the notification.

2. If, after reviewing the record, an individual believes that it is incorrect or incomplete in any respect and wishes to change, correct, or update the alleged deficiency, or to explain any matter in the record, the individual may initiate challenge procedures. These procedures include either direct application by the individual challenging the record to the agency (i.e., law enforcement agency) that contributed the questioned information, or direct challenge as to the accuracy or completeness of any entry on the criminal history record to the Assistant Director, Federal Bureau of Investigation Identification Division, Washington, DC 20537-9700 (as set forth in 28 CFR Part 16.30 through 16.34). In the latter case, the FBI forwards the challenge to the agency that submitted the data and requests that agency to verify or correct the challenged

entry. Upon receipt of an official communication directly from the agency that contributed the original information, the FBI Identification Division makes any changes necessary in accordance with the information supplied by that agency. The Licensee must provide at least ten (10) days for an individual to initiate an action challenging the results of an FBI criminal history records check after the record is made available for his/her review. The Licensee may make a final determination on access to SGI or unescorted access RAMQC based upon the criminal history record only upon receipt of the FBI's ultimate confirmation or correction of the record. Upon a final adverse determination on access to SGI or unescorted access to RAMQC, the Licensee shall provide the individual its documented basis for denial. Access to SGI or unescorted access to RAMQC shall not be granted to an individual during the review process.

Protection of Information

1. Each Licensee who obtains a criminal history record on an individual pursuant to this Order shall establish and maintain a system of files and procedures for protecting the record and the personal information from unauthorized disclosure.

2. The Licensee may not disclose the record or personal information collected and maintained to persons other than the subject individual, his/her representative, or to those who have a need to access the information in performing assigned duties in the process of determining access to SGI or unescorted access to RAMQC. No individual authorized to have access to the information may re-disseminate the information to any other individual who does not have a need-to-know.

3. The personal information obtained on an individual from a criminal history record check may be transferred to another Licensee if the Licensee holding the criminal history record receives the individual's written request to re-disseminate the information contained in his/her

file, and the gaining Licensee verifies information such as the individual's name, date of birth, social security number, sex, and other applicable physical characteristics for identification purposes.

4. The Licensee shall make criminal history records, obtained under this section, available for examination by an authorized representative of the NRC to determine compliance with the regulations and laws.

5. The Licensee shall retain all fingerprint and criminal history records received from the FBI, or a copy if the individual's file has been transferred, for three (3) years after termination of employment or determination of access to SGI or unescorted access to RAMQC (whether access was approved or denied). After the required three (3) year period, these documents shall be destroyed by a method that will prevent reconstruction of the information in whole or in part.