TRANSPORTATION SECURITY REGULATIONS FOR THE TRANSPORTATION SPENT NUCLEAR FUEL

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1. Background

I. Orders

II. Rulemakings - Ongoing Activities

2. Spent Nuclear Fuel (10 CFR 73.37) & NUREG-0561 (Rev. 2)

3. NRC, DHS, DOT MOU
NRC Focus Prior to September 11, 2001

- Historically, NRC Transportation Security Regulations Focused on Highest Risk Radioactive Material, consisted of Special Nuclear Material (SNM) and Spent Nuclear Fuel (SNF)

NRC Actions Since September 11, 2001

- Domestically, reviewed materials transported by NRC licensees and re-evaluated security requirements considering:
  - applicable threats to shipments
  - material considerations
  - magnitude of adverse consequences

- Internationally, participated in the development of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources
NRC Actions Since September 11, 2001 (Cont.)

• **Security Orders**
  – Interim solution - enhance existing regulations

• **Objectives of the Orders are enhanced control of material to**
  – Prevent unauthorized access
  – Prevent malevolent use of material
  – Mitigate consequences

• **Orders were issued to licensees that transport:**
  – IAEA Code of Conduct Category 1 and 2 quantities of radioactive material
  – Spent Nuclear Fuel
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Applicable to SNF shipments >100 grams and >1 Gray/hr @ 1 m unshielded
– Enhances existing requirements
– Considers security concepts and lessons learned from past Security Orders

Published May 20, 2013 (78 FR 29519)
– Compliance August 19, 2013

Includes enhanced requirements for
– Preplanning and coordination of shipments
– Notification and communications
– Control and monitoring of shipments
– Trustworthiness and reliability of personnel
(10 CFR 73) PHYSICAL PROTECTION OF PLANTS AND MATERIALS

10 CFR 73.37 REQUIREMENTS FOR PHYSICAL PROTECTION OF IRRADIATED REACTOR FUEL IN TRANSIT.

• Transportation security requirements for Irradiated Reactor Fuel
• Section prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of Irradiated Reactor Fuel in transit.

“…shall establish and maintain, or make arrangements for, and assure the proper implementation of, a physical protection system…”
• Armed Escorts
  – Armed escorts along the entire length of the shipment route

• Movement control center
  – Staffed 24/7 for duration of the movements
  – Authority to coordinate the physical protection activities

• Notifications/Communication
  – Arrival
  – LLEA
10 CFR 73.37 & 73.38

• 10 CFR 73.38 - Background Investigations
  – Personnel with access to SNF in transit (drivers, train personnel, armed escorts)
  – Movement control center personnel

• Procedures, Training and Protection of Information
Physical Protection of Shipments of Irradiated Reactor Fuel

Supporting Guidance

- NUREG-0561, Revision 2
  - ADAMS ML13120A230

- Published in the Federal Register May 28, 2013 (78 FR 31821)
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MEMORANDUM OF UNDERSTANDING
AMONG

CONCERNING
COOPERATION ON RADIOACTIVE MATERIALS TRANSPORTATION SECURITY

ADAMS: ML15057A336
This MOU establishes a framework for allowing the parties to coordinate, to the maximum extent practicable, their respective responsibilities and activities related to the secure transportation of radioactive materials within the U.S. or across U.S. borders.
Policies/Authorities

- The MOU presents no policy issues.

- The MOU does not impact any of the participant’s authorities.

- There is only one action the participants are committed to in the MOU and that is an annual meeting.
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