

# NRC Transportation Security Requirements Spent Nuclear Fuel

**Gerard Jackson**  
**Division of Security Policy**  
**Office of Nuclear Security**  
**& Incident Response**

27 September 2017  
National State Liaison  
Officer Conference

# Agenda

- **Performance Objectives.**
- **Notifications:**
  - To NRC.
  - To Tribal leadership or designated Rep.
  - To State Governors or designated Rep.
- **General Requirements:**
  - Not a complete list.
  - Focus on Coordination.
- **Safeguards Information (SGI)**

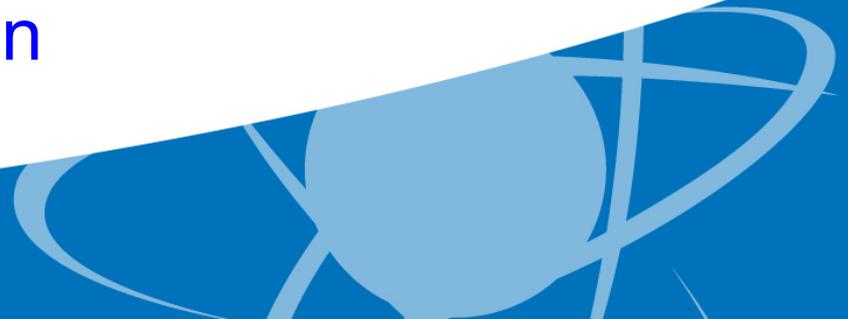




# 10 CFR 73.37

§ 73.37 Requirements for physical protection of irradiated reactor fuel in transit.

- *(a) Performance objectives.*
  - What are they?
- *(b) General requirements.*
  - Sampling of Requirements
  - Focus on Coordination



# (a) Performance objectives.

**(1)** Shall establish and maintain, or make arrangements for, and assure the proper implementation of, a physical protection system for shipments of such material that will achieve the following objectives:

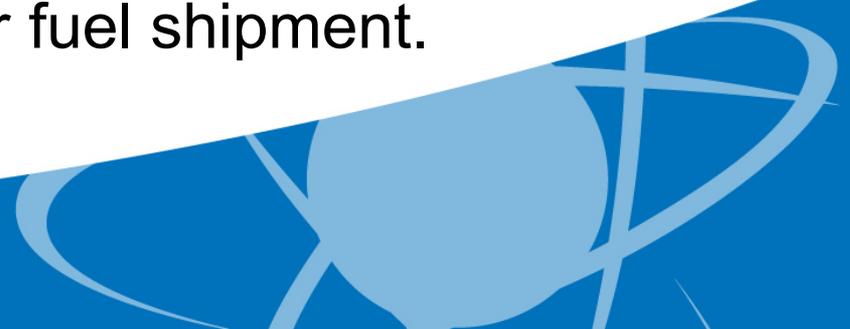
- (i) Minimize the potential for theft, diversion, or radiological sabotage of spent nuclear fuel shipments; and
- (ii) Facilitate the location and recovery of spent nuclear fuel shipments that may have come under the control of unauthorized persons.



# (a) Performance objectives.

**(2)** To achieve these objectives, the physical protection system shall:

- (i) Provide for early detection and assessment of attempts to gain unauthorized access to, or control over, spent nuclear fuel shipments;
- (ii) Delay and impede attempts at theft, diversion, or radiological sabotage of spent nuclear fuel shipments; and
- (iii) Provide for notification to the appropriate response forces of any attempts at theft, diversion, or radiological sabotage of a spent nuclear fuel shipment.



## (b) General requirements.

To achieve the performance objectives of paragraph (a) of this section, a physical protection system established and maintained, or arranged for, by the licensee shall include the following elements\*:

\*Note, This is not all inclusive.

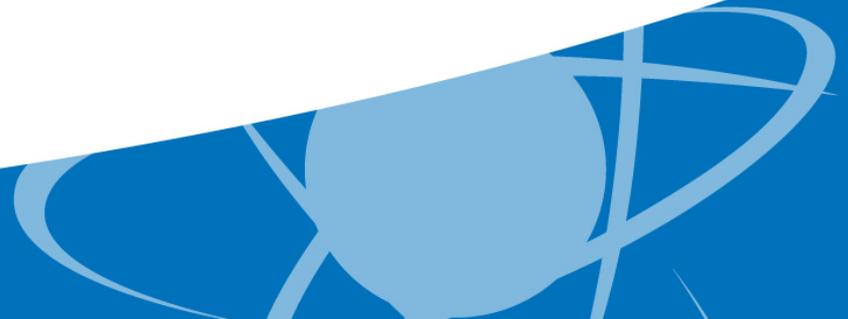
See § 73.37



# (1) Preplan & Coordinate

## 10 CFR 73.37(b)(1)

- (A) Minimize intermediate stops and delays;
- (B) Arrange for State law enforcement escorts;
- (C) Arrange for positional information sharing when requested;
- (D) Develop route information, including the identification of safe havens.
- (E) Arrange w/ Local Law Enforcement for Response/Assistance



# Notifications

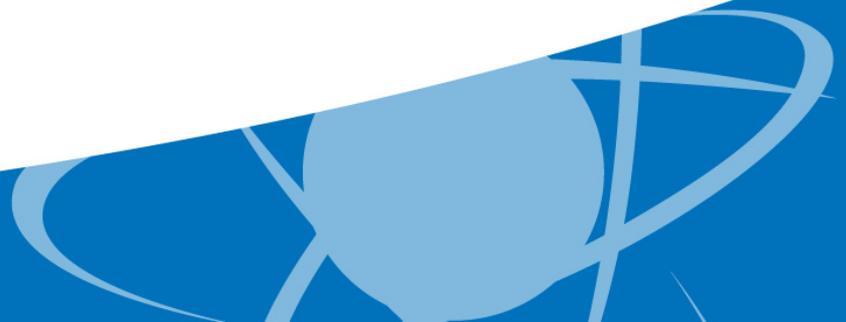
## Why does a licensee provide notice?

10 CFR 71.97 Advance notification of shipment of **irradiated reactor fuel** and nuclear waste.

*(c) Procedures for submitting advance notification.*

(1) The notification must be made in writing to:

(i) The office of each appropriate governor or governor's designee;



# Notifications

## What does the notice contain\*?

§ 71.97

(d) *Information to be furnished in advance notification of shipment.* Each advance notification of shipment of irradiated reactor fuel or nuclear waste must contain the following information:

- (1) The name, address, and telephone number of the shipper, carrier, and receiver of the irradiated reactor fuel or nuclear waste shipment;
- (2) A description of the **irradiated reactor fuel** or nuclear waste contained in the shipment, as specified in the regulations of DOT in 49 CFR 172.202 and 172.203(d);
- (3) The point of origin of the shipment and the 7-day period during which departure of the shipment is estimated to occur;

# Notifications

## What does the notice contain\*? (Cont.)

§ 71.97

(d) *Information to be furnished in advance notification of shipment.* Each advance notification of shipment of irradiated reactor fuel or nuclear waste must contain the following information:

- (4) The 7-day period during which arrival of the shipment at State boundaries or Tribal reservation boundaries is estimated to occur;
- (5) The destination of the shipment, and the 7-day period during which arrival of the shipment is estimated to occur; and
- (6) A point of contact, with a telephone number, for current shipment information.



# (A) Minimize Intermediate Stops & Delays



# (B) Arrange for State Law Enforcement Escorts



# (C) Arrange for Positional Information Sharing



# (D)Develop Route Information

- Who knows local community best?
- What is happening?



# (D)Develop Route Information Including Safe Havens.



# (D)Develop Route Information

- Local road conditions:



# (D) Arrange w/ LLEA for Response/Assistance



# \* Safeguards Information

- (iii) Vehicle immobilization features, intrusion alarm devices, and communications systems;
- (iv) Arrangements with and capabilities of local police response forces, and locations of safe havens identified along the transportation route;
- (v) Limitations of communications during transport;
- (vi) Procedures for response to security contingency events;
- (vii) Information concerning the tactics and capabilities required to defend against attempted sabotage, or theft and diversion of formula quantities of special nuclear material, irradiated reactor fuel, or related information; and
- (viii) Engineering / safety analyses, security-related procedures or scenarios & other information related to the protection of the transported material if the unauthorized disclosure of such analyses, procedures, scenarios, or other information could reasonably be expected to have a significant adverse effect on the health and safety of the public or the common defense and security by significantly increasing the likelihood of theft, diversion, or sabotage of source, byproduct, or special nuclear material.

# Questions?



Gerard Jackson  
US NRC  
301-287-3593

[Gerard.Jackson@NRC.Gov](mailto:Gerard.Jackson@NRC.Gov)

