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The University of Michigan

MICHIGAN MEMORIAL - PHOENIX PROJECT
PHOENIX MEMORIAL LABORATORY FORD NUCLEAR REACTOR
ANN ARBOR, MICHIGAN 48109-2100

221A1D

Date: September 13, 1999
To: Susan Shankman
Deputy Director, Office of NMSS
U. S. Nuclear Regulatory Commission
Washington, DC 20055

50-2

Subject: Shipment of Irradiated Reactor Fuel

- References:
- 10 CFR 73.37, *Requirements for physical protection of irradiated reactor fuel in transit.*
 - 10 CFR 73.72, *Requirements for advance notification of shipment of formula quantities of strategic special nuclear material, special nuclear material of moderate strategic significance, of irradiated reactor fuel.*
 - 10 CFR 73.21, *Requirements for the protection of safeguards information.*

Enclosed are two copies of the advance notification package for a shipment of irradiated reactor fuel.

One copy is for your office, and one is for the Division of Industrial & Medical Nuclear Safety.

I also confirm that armed escort will be provided as required and that the governor or his designee will or has been notified.

Please contact me if you have any questions.

Sincerely,

Christopher W. Becker
Reactor Laboratory Manager
cwbecker@umich.edu

- Encl (2 packages):
1. Description of Quantities to Ship
 2. *Route Details
 3. *Detailed Schedule

~~NMSS~~
UMSSOS PROP

Summary Requirements for the Protection of Safeguards Information.

Bernard Ducamp
Phoenix Memorial Laboratory
Ford Nuclear Reactor
2301 Bonisteel Boulevard
Ann Arbor, MI 48109-2100
ph: (734) 764-6220

Thank you for helping the University of Michigan's Phoenix Project with irradiated research reactor fuel shipments. Phoenix Project is dedicated to the peaceful applications of nuclear energy.

Why

Persons involved with the shipment of irradiated reactor fuel are required by Federal Laws to ensure that Safeguards Information is protected against unauthorized disclosure. Safeguards ensure physical security against theft, sabotage, or intentional disruptions. (Reference: 10 CFR 73.21)

Who

Persons are authorized access to Safeguards Information if they have a "need to know" and are either:

1. University of Michigan employees;
2. U. S. Gov't employees, licensees, or contractors;
3. State Governors or their designated representatives;
4. Members of state or local law enforcement agencies that are responsible for responding to requests for assistance during safeguards emergencies (including escorts).

What

Information which is to be treated as Safeguards Information:

1. The composite transportation physical security plan;
2. Schedules** and itineraries for specific shipments. (Routes and quantities for shipment are not included);
3. Details of vehicle immobilization features, intrusion alarm devices, and communication systems;
4. Arrangements with and capabilities of local police response forces, and locations of safe havens;
5. Details regarding limitations of radio-telephone communications; and
6. Procedures for response to safeguards emergencies.

Note: Schedules for spent fuel shipments may be released **10 days after the last shipment of a current series.

April, 1999

Description of Shipment

Shipment I.D. : R28-1999-1 (First in a sequence of 4)

Shipper: The University of Michigan
Phoenix Memorial Laboratory
2301 Bonisteel Blvd
Ann Arbor, MI 48109-2100
(734) 764-6220
(734) 855-3574 (Mr Christopher Becker - 24 hr/day)

Carrier: Tri-State Motor Transit
8141 East Seventh Street
Joplin, MO 64801
(800) 234-8768
(208) 526-1515 (24 hr/day Communication Center)

Receiver: Mr. David Blanchard
Westinghouse Savannah River Company
Building 105L
Savannah River Site
Aiken, SC 29802
(803) 557-6087
(803) 557- (24 hr/day)

Description: Radioactive Material, Fissile, NOS, 7, UN2918, 696 grams U-235
Mixed Fission Products (MFP), 166 TBq (4486 Curies)
Physical Form: Solid. Chemical Form: UAlx-Al
Radioactive Yellow III Label, Transport Index = 100
*Warning-Fissile Material, controlled shipment. Do not load more than 1 package per
vehicle. In loading and storage areas, keep at least 6 meters (20 feet) from other
packages bearing radioactive materials.*
One BMI-1 Cask, Type B, USA/5957/B(F), Cask Seal #s TBD.
Exclusive Use Shipment, Highway Route Controlled Quantity.

Radioactive Material, Excepted Package, Limited Quantity of Material, 7, UN2910
One toolbox.

This Irradiated Reactor Fuel is from Ford Nuclear Reactor, a 2 MW MTR-type research facility
utilizing <20% enriched U-235.

Transportation Route: By road. Details enclosed. No transfer points.

Safeguards information: Transportation Schedule (enclosed).