

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 80-04
Docket No. 15000046 License No. _____ Safeguards Group _____
Licensee: _____

Facility Name: Nuclear Engineering Company
Inspection at: Richland, Washington
Inspection conducted: January 7-18, 1980
Inspectors: *R. D. Thomas* 3/24/80
JW C. C. Peck, Fuel Facility Inspector, Region III Date Signed

Approved By: *R. D. Thomas* 3/25/80
R. D. Thomas, Chief, Materials Radiological Protection Section Date Signed
Approved By: *H. E. Book* 3/25/80
H. E. Book, Chief Fuel Facility and Materials Safety Branch Date Signed

Summary:

Inspection on January 7-18, 1980 (Report No. 15000046/80-04)

This inspection was conducted to determine compliance of waste shipments with applicable DOT and NRC regulations. Vehicle placarding, package marking and labeling, the conditions of packages, and shipping papers were examined. Radiation and contamination surveys were conducted.

This composite report describes 14 shipments which were found to be in compliance with DOT and NRC regulations. One shipment from an NRC licensee that was found to be in apparent noncompliance is separately described in Report No. 80-05.

The State of Washington was represented onsite throughout the inspection. The DOT was not present. No packages were opened.

Results: No items of noncompliance were identified.

8007100003

DETAILS

Persons Contacted

V. Apple, Site Manager, NECO
R. Phalen, Assistant Site Manager, NECO
F. Dickson, Radiological Control and Safety Officer, NECO
K. Jackson, Department of Social and Health Services, State of Washington
R. Brown, Department of Social and Health Services, State of Washington
D. Peterson, Department of Social and Health Services, State of Washington

In addition to the inspector, NRC was represented by D. R. Hopkins of the Office of Standards Development throughout the inspection.

Shipments

1. Shipper: Radiac Research Corporation (State Licensee)
Brooklyn, New York

Shipment Inspected: January 7, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 440201

Freight Bill: 266905

The shipment consisted of 192 drums of solid waste and scintillation vials. Maximum radiation level at the vehicle surface was 1 mR/hr. Drums were labeled with radioactive I, II, and III labels, and each drum had a security seal. Smears of three drums disclosed no detectable radioactive contamination.

No items of noncompliance were identified.

2. Shipper: University of Minnesota (NRC Licensee)
Minneapolis, Minnesota

Shipment Inspected: January 7, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 444581

Freight Bill: 330446

This was a shipment of 168 drums of LSA solid waste including scintillation vials, animal carcasses, paper, and glass. Maximum radiation level at the vehicle was less than 1 mR/hr at the surface. Each drum was marked as required.

No items of noncompliance were identified.

3. Shipper: Trojan Nuclear Plant(NRC Licensee)
Rainier, Oregon

Shipment Inspected: January 8, 1980

Carrier: McKay's Truck Line

Trailer: 85

Freight Bill: 16291

The shipment was 158 drums of LSA solid waste contaminated with oxides of Group III and IV radioactive nuclides. The maximum radiation level on the vehicle was 5 mR/hr at the surface. Smears of three drums disclosed no radioactive contamination.

No items of noncompliance were identified.

4. Shippers: Vanderbilt University (State Licensee)
Nashville, Tennessee
and Amersham Corp. (NRC Licensee)
Arlington Height, Illinois

Shipment Inspected: January 11, 1980

Carrier: Consolidated Freightways

Trailer: 91-7444

Freight Bills: 6002616, 002617, 002618 (Numbers assigned by NECO)

This was a nonexclusive use shipment. From Vanderbilt there were 13 fiberboard boxes containing solid wastes contaminated with Group III and IV radionuclides, and ten drums containing scintillation vials with similar radionuclides. All packages were labeled as required. Results of three smears disclosed no radioactive contamination. The Amersham shipment was millicurie quantities of americium-241 packaged in a DOT specification container (20 WO 5 Type B).

No items of noncompliance were identified.

5. Shipper: Metrololitan Edison (NRC Licensee)
Three Mile Island, Unit 2

Shipment Inspected: January 14, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 440700

Freight Bill: 330585

The shipment consisted of 95 drums and five wooden boxes, all identified as containing LSA solid materials. The packages contained millicurie quantities of Group II, III, and IV radionuclides according to the shipping papers. Radiation levels were 20 mR/hr maximum at the vehicle surface, 4 mR/hr maximum at six feet from the vehicle, and 0.2 mR/hr in the cab. Smears disclosed no removable radioactive contamination.

No items of noncompliance were identified.

6. Shipper: Nuclear Engineering Company (NRC Licensee)
Seneca, Illinois

Shipment Inspected: January 14, 1980

Carrier: Tri-State Motor Transit

Trailer: 440335

Freight Bill: 331182-3

This shipment was 114 drums originating from a number of laboratory, hospital, and university licensees in Minnesota. The maximum radiation level at the vehicle surface was less than 1 mR/hr. The contents of the drums included solid waste, scintillation vials, absorbed liquid, and animal carcasses according to the shipping papers. The packages were either marked LSA or were appropriately labeled.

No items of noncompliance were identified.

7. Shipper: Exxon Corporation (State Licensee)
Hanford, Washington

Shipment Inspected: January 14, 1980

Carrier: NECO

This shipment was transported in a NECO vehicle to the burial site. The shipment consisted of depleted uranium in boxes. The packages were labeled with White I and Yellow II labels, although they could have been shipped as LSA material. Radiation levels were less than 1 mR/hr from the truck.

No items of noncompliance were identified.

8. Shipper: Nuclear Engineering Company (NRC Licensee)
Seneca, Illinois

Shipment Inspected: January 14, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 444574

Freight Bill: 266908

This shipment consisted of 138 drums from state licensees in North Carolina. The packages were all marked LSA or labeled. Contents were solid waste, absorbed liquid, scintillation vials. The principle contained radionuclides were carbon-14, tritium, and iodine-125. The vehicle radiation level was less than 1 mR/hr. No radioactive contamination was detected on four randomly smeared drums.

No items of noncompliance were identified.

9. Shipper: Northern States Power Company (NRC licensee)
Monticello, Minnesota

Shipment Inspected: Tri-State Motor Transit Company

Trailer: 544129

Freight Bill: 330462

The shipment consisted of two large wooden boxes containing contaminated hardware and 20 drums containing solid waste. The radionuclides were Group III and IV. The maximum radiation level from the vehicle was 10 mR/hr at the surface. The radiation level in the cab was 0.5 mR/hr. No removable radioactive contamination was detected on three smears of the drums.

No items of noncompliance were identified.

10. Shipper: University of Washington (State Licensee)
Seattle, Washington

Shipment Inspected: January 16, 1980

Carrier: University of Washington

Trailer: 81455

There were 160 packages in this shipment, consisting of 3-gallon and 5-gallon pails and 55-gallon drums. All packages were marked LSA. The contents were identified on shipping papers as animal carcasses, scintillation vials, and solid scrap. The radiation level rate from the vehicle did not exceed 1 mR/hr at the surface. Smears of two packages disclosed no removable radioactive contamination.

No items of noncompliance were identified.

11. Shipper: Northern States Power Co. (NRC Licensee)
Monticello, Minnesota

Shipment Inspected: January 16, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 544133

Freight Bill: 330463

This shipment was two large wood boxes and 20 drums of LSA waste. The maximum radiation level from the vehicle was 14 mR/hr at the surface. The radiation level in the cab was 0.3 mR/hr. The contained radionuclides were Group III and IV.

No items of noncompliance were identified.

12. Shipper: Teledyne Wah Chang (State Licensee)
Albany, Oregon

Shipment Inspected: January 16, 1980

Carrier: McKay's Truck Line

Trailer: 71

Freight Bill: 16358

The shipment consisted of nine wood boxes and 90 drums of LSA waste. The drums contained solid waste, and the boxes contained waste sand. Contaminating nuclides were of Groups III and IV. The radiation level on the vehicle surface was less than 1 mR/hr.

No items of noncompliance were identified.

13. Shipper: New England Nuclear (NRC Licensee)
North Billerica, Massachusetts

Shipment Inspected: January 17, 1980

Carrier: Tir-State Motor Transit Company

Trailer: 440151

Freight Bill: 331152

The shipment consisted of 100 drums of solid and absorbed liquid waste. The maximum vehicle radiation level was about 17 mR/hr at the surface. The contained radionuclides were from Groups II, III, and IV. The transport indices (mR/hr at 3 feet) were found to be in agreement with TI's indicated on package labels. Smears of two packages disclosed no removable radioactive contamination.

No items of noncompliance were identified.

14. Shipper: AWC, Incorporated (State Licensee)
Las Vegas, Nevada

Shipment Inspected: January 17, 1980

Carrier: Tri-State Motor Transit Company

Trailer: 440247

Freight Bill: 331572

The shipment consisted of 117 drums containing alloys and oxides of depleted uranium. The radiation levels on the vehicle and packages was less than 1 mR/hr. The drums were marked LSA as required.

No items of noncompliance were identified.