

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

Region I

Report Nos. 50-245/81-07
50-336/81-06 (15000046/81-04)

Docket Nos. 50-245
50-336

License Nos. DPR-21
DPR-65 Priority -- Category C

Licensee: Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06101

Facility Name: Millstone Nuclear Power Station, Units 1 and 2

Inspection At: Richland, Washington

Inspection Conducted: March 12, 1981

Inspection Summary:

Inspection by Region V on March 12, 1981 (Region I Designation: Combined Report
Nos. 50-245/81-07; 50-336/81-06. Region V Designation: Report No. 81-04)

Northeast Nuclear Energy Company was the originator of the waste shipment inspected at Richland, Washington by Region V.

Results: One apparent item of noncompliance with NRC/DOT regulations was observed. See paragraph 3 of the enclosed report. This item was discussed with Mr. E. Mroczka, the Plant Superintendent, by Mr. P. Clemons on March 28, 1981.

Region I Form 12
(Rev. April 77)

8107290136 810713
PDR ADOCK 05000245
Q PDR

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

REGION V

Report No. 81-04

Docket No. 15000046 License No. _____ Safeguards Group _____

Licensee: _____

Facility Name: U. S. Ecology, Inc.

Inspection at: Richland, Washington

Inspection Conducted: March 12, 1981

Inspectors: *R. D. Thomas* 3/27/81
for B. A. Riedlinger, Radiation Specialist Date Signed

Approved By: *R. D. Thomas* 3/27/81
R. D. Thomas, Chief Date Signed
Materials Radiological Protection Section

Approved By: *H. E. Book* 3/27/81
H. E. Book, Chief Date Signed
Radiological Safety Branch

Summary:

Inspection on March 12, 1981 (Report No. 15000046/81-04)

As part of the low level waste inspection conducted during March 9-13, 1981, trailer number 242133 and associated shipping records were inspected on March 12, 1981 and are detailed in this report. No packages were opened. Two inspector hours were expended in this effort.

A representative from the Department of Transportation was not present during this inspection. Steven Matthews of the State of Washington Department of Social & Health Services was present during this inspection.

Results: One apparent item of noncompliance with NRC/DOT regulations was observed.

See paragraph 3 of the enclosed report. It appears that NRC Region I and the Department of Transportation are the appropriate organizations to take enforcement actions.

DETAILS

Persons Contacted

Vern Apple, Site Manager, U. S. Ecology, Inc.
Floyd Dickson, Radiation Control and Safety Officer, U. S. Ecology, Inc.
Rebecca Cropper, Radiation Technician, U. S. Ecology Inc.
Rob Rittenberg, Radiation Technician, U. S. Ecology Inc.
Steven Matthews, State of Washington, Department of Social & Health Services

Background

As a part of a low-level waste inspection conducted during March 9-13, 1981 at Richland, Washington, trailer number 242133 and associated shipping papers were inspected on March 12, 1981. Details of that inspection are given in this report. Radiation surveys were performed with one instrument:

Eberline E-520, serial number 1702, due for recalibration on 5/11/81.

An HP-270 G-M probe was used for radiation level surveys, and an HP-260 pancake probe was used to check for removable radioactive contamination.

Inspection

Licensee-Shipper: Northeast Nuclear Energy Co. (Docket Nos. 05000245, 05000336,
05000423, 05000496, 05000497)
Waterford, Connecticut

Shipment Inspected: March 12, 1981

Carrier: Tri-State Motor Transit

Trailer: Transport International Pool 242133

Freight Bill: 371295

1. This trailer transported 18 wooden boxes of LSA radioactive waste, a partial description of which is provided as Attachments A and B. This was an exclusive use shipment.
2. Radiation surveys of the trailer indicated a maximum dose rate of 10 mr/hr at the surface of the trailer. The dose rate in the cab was measured to be 0.1 mr/hr.

3. 49 CFR 173.392(c)(8) requires that the outside of each package of low specific activity materials transported in an exclusive use vehicle be stencilled or otherwise marked, "Radioactive LSA". Contrary to this requirement, during the unloading on March 12, 1981, three boxes were observed to be without "Radioactive-LSA" markings. The boxes were Items 70-1, 83-1, and 69-1 as listed on the Radioactive Waste Shipment and Disposal Form.
4. Checks of the floor of the trailer and of one box for removable radioactive contamination indicated no significant radioactive contamination above background.

From NORTHEAST NUCLEAR ENERGY CO

DATE SHIPPED 3/6/81

311445
81-43-1

At WATERFORD, CT. 06385

ORIGINATING CARRIER TRI STATE MOTOR TRANSIT CO.

EXECUTIVE OFFICES
P.O. BOX 113, JOPLIN, MO. 64801

CONSIGNEE TO

(Mail or street address of consignee - for purposes of notification only)

DESTINATION

NUCLEAR ENGINEERING COMPANY INC.

COUNTY

DELIVERY ADDRESS

RICHLAND, WA.

(To be filled in only when shipper desires and governing tariffs provide for delivery thereof)

CONNECTING CARRIER(S)

Box 638, RICHLAND, WA. 99352

DELIVERING CARRIER

TRACTOR NO.

TRAILER NO.

TRI STATE

TRI STATE

171

242133 TR

NO. OF PACKAGES	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	WEIGHT OR RATE	CHARGE	Signature of Consignee
18	HM REES RADIOACTIVE MATERIAL, LSA, NUC. CONTAINING SOLID NON-COMBUSTIBLE WASTE - CHEMICAL FORM, METALLIC OXIDE. NO LABEL REQUIRED. TOTAL ACTIVITY = 47.63 MCi THUS, 2 AT GROSS - II, III. QUANTITY = 1009 CWT. ISOTOPES - 134CS, 137CS, 54MN, 60CO, 89SR, 55FE, 63NI. (VEHICLE MUST BE RECORDED "RADIOACTIVE" AND MAINTAINED "EXCLUSIVE USE".)	25,400		
LARGEST SINGLE ARTICLE		LENGTH	WIDTH	HEIGHT
		7'	4'	4'
		TOTAL TRAILER SPACE OCCUPIED		
		FULL LOAD (100%)		

UNLESS A GREATER VALUE IS DECLARED, THE SHIPPER HEREBY RELEASES THE VALUE TO \$5000.00 PER TON OF 2000 POUNDS FOR EACH ARTICLE.

ARRIVED AT SHIPPER	DATE	TIME	PREARRANGED SCHEDULE	YES	NO	DATE	TIME	LOADING STARTED	DATE	TIME
	3/6/81	0600				3/6/81	0600		3/6/81	1000
LOADING COMPLETED	3/6/81	1200	VEHICLE RELEASED			3/6/81	1200	SHIPPER'S SIGNATURE		
PERMANENT POST OFFICE ADDRESS OF SHIPPER						SHIPPER, PER		AGENT, PER		
Box 128 WATERFORD, CT. 06385						NNECO				

SIGNATURE TALLY RECEIPT

Must be filled out and signed at origin and each time the shipment changes custody.

DATE SHIPMENT RECEIVED FROM CONSIGNOR		3RD TIME CARGO CHANGED CUSTODY		6TH TIME CARGO CHANGED CUSTODY						
DATE	TIME	DATE	TIME	DATE	TIME					
3-6-81	11:20 AM									
TRACTOR NO.		TRACTOR NO.		TRACTOR NO.						
171										
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
1ST TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
	2/8/81	9:45	AM							
TRACTOR NO.				TRACTOR NO.						
907										
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
2ND TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
TRACTOR NO.				TRACTOR NO.						
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
3RD TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
TRACTOR NO.				TRACTOR NO.						
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
4TH TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
TRACTOR NO.				TRACTOR NO.						
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
5TH TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
TRACTOR NO.				TRACTOR NO.						
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
6TH TIME CARGO CHANGED CUSTODY	DATE	TIME	AM/PM	DATE	TIME					
TRACTOR NO.				TRACTOR NO.						
DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL	DRIVERS SIGNATURE	HOME TERMINAL					
ARRIVED AT CONSIGNEE	DATE	TIME	PREARRANGED SCHEDULE	YES	NO	DATE	TIME	UNLOADING STARTED	DATE	TIME
	3/12/81	0300				3/12/81	1100		3/12/81	1000
UNLOADING COMPLETE	3/12/81	1100	VEHICLE RELEASED			3/12/81	1100	CONSIGNEE'S SIGNATURE		
						K. S. C. (Signature)				

RECEIVED THE ABOVE DESCRIBED PROPERTY IN GOOD CONDITION EXCEPT AS NOTED

1 - CONSIGNEE'S COPY - 1

ATTACHMENT - A

1

SHIPPER: Nuclear Engineering Co.
 ADDRESS: Box 125, Louisville, KY 40203
 PHONE: (502) 441-1111
 SHIPMENT NO.: 21-43-1
 DATE OF SHIPMENT: 10/1/81
 CARRIER: The Louisville Transit Co.

RADIOACTIVE WASTE SHIPMENT & DISPOSAL FORM
NUCLEAR ENGINEERING COMPANY, INC.
 EXECUTIVE OFFICE: (502) 426-7160
 P.O. BOX 7246 • LOUISVILLE, KENTUCKY 40207
 Illinois Office: (815) 454-2624
 California Office: (415) 932-4800

☐ P.O. Box 578
 Beatty, NV 89003
 (702) 553-2203
☒ P.O. Box 638
 Richland, WA 99352
 (509) 377-2411

NO. **14628**

PAGE 3 OF 4

TOTAL QUANTITY	PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	TOTAL WEIGHT IN POUNDS
	Radioactive Device, N.O.S.	— Radioactive Material
	Radioactive Material, Fissile, N.O.S.	— Radioactive Material
	Radioactive Material, Low Specific Activity, N.O.S.	— Radioactive Material
	Radioactive Material, N.O.S.	— Radioactive Material
	Radioactive Material, Limited Quantity, N.O.S.	— Radioactive Material
	Radioactive Material, Special Form, N.O.S.	— Radioactive Material

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)	(13)	(14)	(15)
Item No.	Cubic Feet	Weight (Pounds)	Physical Form	Chemical Form	Radionuclide	Special Nuclear Material (Grams)	Source Material (Kilograms)	Activity (1) Curies (2) Millicuries	Radiation Levels MR/HR		Transport Group	Transport Index	Label	Fissile Class	Type of Container
67-1	100.50	1500	SOLID	OXIDE	134 Cs	—	—	.44	40	4.0	II	4.0	Radioactive —	—	—
					137 Cs			1.24			II		Radioactive —		
					54 Mn			2.74			II		Radioactive —		
					60 Co			16.23			II		Radioactive —		
					59 Fe			.36			II		Radioactive —		
					55 Fe			1.47			II		Radioactive —		
					65 Ni			.01			II		Radioactive —		
						Total =		22.20					Radioactive —		
													Radioactive —		
53-1	100.20	1400	SOLID	OXIDE	137 Cs	—	—	.16	.4	4.1	II	.1	Radioactive —	—	—
					54 Mn			.04			II		Radioactive —		
					60 Co			.16			II		Radioactive —		
					55 Fe			.01			II		Radioactive —		
						Total =		.37					Radioactive —		
													Radioactive —		
201.00		2900	TOTALS					24.03							

HS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION

John L. Elmore Sr. Richard Robinson
 Authorized Signature Title

THIS IS TO CERTIFY THAT ARTICLES ARE IN COMPLIANCE WITH ALL REGULATIONS APPLICABLE AT THE DESIGNATED DISPOSAL SITE

John L. Elmore Sr. Richard Robinson
 Authorized Signature Title

NECO COPY

ATTACHMENT B, p. 1 of 2

SHIPPER: NECO Engineering Co
 ADDRESS: 2128 W. Main St, Louisville, KY 40203
 PHONE: (502) 417-1791
 SHIPMENT NO.: 21-45-1
 DATE OF SHIPMENT: 3/1/71
 CARRIER: THE SOUTHERN RAILROAD CO

RADIOACTIVE WASTE SHIPMENT & DISPOSAL FORM NUCLEAR ENGINEERING COMPANY, INC.

EXECUTIVE OFFICE: (502) 426-7160
 P.O. BOX 7246 • LOUISVILLE, KENTUCKY 40207

Illinois Office: (815) 454-2624
 California Office: (415) 932-4800

☐ P.O. Box 578
 Beatty, NV 89003
 (702) 553-2203

☒ P.O. Box 638
 Richland, WA 99352
 (509) 377-2411

NO. 14632

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TOTAL QUANTITY	PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	TOTAL WEIGHT IN POUNDS
	Radioactive Device, N.O.S.	— Radioactive Material
	Radioactive Material, Fissile, N.O.S.	— Radioactive Material
	Radioactive Material, Low Specific Activity, N.O.S.	— Radioactive Material
	Radioactive Material, N.O.S.	— Radioactive Material
	Radioactive Material, Limited Quantity, N.O.S.	— Radioactive Material
	Radioactive Material, Special Form, N.O.S.	— Radioactive Material

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Item No.	Cubic Feet	Weight (Pounds)	Physical Form	Chemical Form	Radionuclide	Special Nuclear Material (Grams)	Source Material (Kilograms)	Activity (1) Curies (2) Millicuries	Radiation Levels MR/hr Surface 3 Feet	Transport Group	Transport Index	Label	Fissile Class	Type of Container
10-1	100.50	1200	Solid	Oxide	134 CS	—	—	.94	10	4.0	III	4.0	Radioactive -	1.5A
					137 CS			1.54			III		Radioactive -	
					54 Mn			3.14			III		Radioactive -	
					60 Co			16.78			II		Radioactive -	
					84 Sr			.32			III		Radioactive -	
					55 Fe			1.47			III		Radioactive -	
					63 Ni			.61			III		Radioactive -	
								Total = 23.85					Radioactive -	
													Radioactive -	
10-1	100.50	1000	Solid	Oxide	134 CS	—	—	.91	.5	4.1	III	1	Radioactive -	1.5A
					137 CS			.52			III		Radioactive -	
					54 Mn			.05			III		Radioactive -	
					60 Co			.20			III		Radioactive -	
					55 Fe			.02			III		Radioactive -	
								Total = .70					Radioactive -	
	201.00	2200						TOTALS						

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

[Signature]
 Authorized Signature Title

NECO COPY

THIS IS TO CERTIFY THAT ARTICLES ARE IN COMPLIANCE WITH ALL REGULATIONS APPLICABLE AT THE DESIGNATED DISPOSAL SITE.

[Signature]
 Authorized Signature Title

ATTACHMENT B, P.2 of 2