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Omaha NE 68102-2247

August 26, 2002  
LIC-02-0092

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

- References:
1. Docket No. 50-285
  2. Letter from NRC (E. W. Merschoff) to OPPD (R. T. Ridenoure) dated July 30, 2002

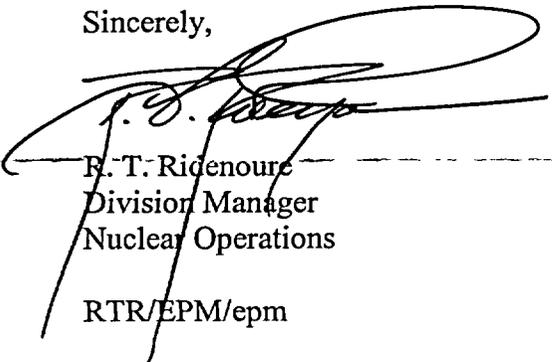
**SUBJECT: NRC Inspection Report 50-285/02-08, Reply to a Notice of Violation**

Reference 2 transmitted a Notice of Violation (NOV) to the Omaha Public Power District (OPPD). The NOV resulted from a radioactive waste shipment that failed to meet the Department of Transportation (DOT) limits on the external surface radiation levels. Attached is the OPPD response to this NOV.

This letter does not contain any regulatory commitments.

If you should have any questions, please contact me.

Sincerely,



R. T. Ridenoure  
Division Manager  
Nuclear Operations

RTR/EPM/epm

Attachments

- c: E. W. Merschoff, NRC Regional Administrator, Region IV  
A. B. Wang, NRC Project Manager  
J. G. Kramer, NRC Senior Resident Inspector  
Winston & Strawn

1E01

REPLY TO A NOTICE OF VIOLATION

Omaha Public Power District  
Fort Calhoun Station

Docket No. 50-285  
License No. DPR-40  
EA-02-123

During an NRC inspection conducted between May 13-17, 2002, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR 71.5 requires each licensee who transports licensed materials outside the site of usage or on public highways to comply with the requirements in 49 CFR Parts 170 through 189.

49 CFR 173.441(a) requires that each package of Class 7 (radioactive) material offered for transportation be designed and prepared for shipment, so that under conditions normally incident to transportation, radiation levels do not exceed 200 millirem per hour at any point on the external surface of the package.

Contrary to the above, on April 24, 2002, the licensee shipped dry active waste in a sea-land container under conditions normally incident to transportation, and dose rates on the exterior surface exceeded 200 millirem per hour.

This violation is associated with a White significance determination process finding.

OPPD Response

1. Reason for the Violation

On April 24, 2002, the Fort Calhoun Station (FCS) Radioactive Waste (Radwaste) Operations Supervisor was informed that a dry active waste shipment had a contact dose rate in excess of regulatory limits. The shipment, Sea/Land Shipment #02-576, was received by Duratek Incorporated located in Oak Ridge, Tennessee. A contact dose rate of 600 millirem/hour (mrem/hr) was identified as coming from a localized area on the Sea/Land shipping container. The Transportation Section of the Code of Federal Regulations (49 CFR 173) contact dose rate limit for this type of shipment is 200 mrem/hr.

A root cause analysis of the event was performed and it was determined that: The root cause of this event was packaging the radioactive material within the Sea/Land container in such a manner that it could shift during transport. There were two factors which contributed to the event: 1) No formal, documented plan for loading the Sea/Land container had been established; 2) Tracking the placement of the radioactive material within the Sea/Land container was only informally implemented.

**2. Corrective Steps Taken and Results Achieved**

Confirming phone calls were made with Duratek and more detailed information was sent to FCS via facsimile. Arrangements were made for a FCS Senior Radwaste Technician to visit Duratek to identify the article or item that was causing the elevated dose rates and gather information that could be used to determine how to prevent recurrence of the problem. The information collected was part of the data used to support the root cause analysis discussed above.

To correct the problems identified in the root cause analysis, the following corrective actions have been completed as discussed below.

1. A loading plan requirement was developed for radioactive shipments. The detail of the loading plan is commensurate with the susceptibility of the shipment to shift during transport. Sea/Land type Low Specific Activity (LSA), shipments, special geometry parts / equipment, multi-unit/part shipments will require detailed loading plans. Loading plans will be pre-approved prior to radioactive material being placed in the shipping container/package. A loading plan was added to RW-315, "Shipment to Vendor Processing Facility of Radioactive Materials," in attachment 9.1. This change was issued June 18, 2002.
2. In the aforementioned loading plan, for Sea/Land type or LSA other similar shipments containing multiple units of radioactive material, requirements have been implemented to ensure more significant radioactive sources are prevented from shifting through the use of shoring materials. This additional precaution should prevent exceeding either station or regulatory limits. This change was issued June 18, 2002.
3. A formal method of tracking and controlling the radioactive material (using a container loading log) placed in the Sea/Land containers commensurate with the radiological risk (dose rates) associated with the radioactive material being packaged for shipment was implemented. A new form, FC-RW-315-2, was developed and issued May 10, 2002, that documents all items with contact dose rates greater than 100 mrem/hr, the location in the Sea/Land, and the initials of the person over-seeing the placement.

**3. Corrective Steps That Will Be Taken To Avoid Further Violations**

All appropriate corrective measure have been implemented and are in use at this time.

**4. The Date When Full Compliance Will Be Achieved**

Fort Calhoun Station is currently in full compliance.