

PHILADELPHIA ELECTRIC COMPANY

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SHIELDS L. DALTROFF
VICE PRESIDENT
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(215) 841-5001

August 28, 1985

Docket Nos. 50-277
50-278

Inspection Report Nos. 50-277/85-27
50-278/85-25

Mr. Thomas T. Martin, Director
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Martin:

Appendix A to your letter dated July 29, 1985 addresses activities which were identified by Inspection Report No. 50-277/85-27; 50-278/85-25 as possible violations with respect to Peach Bottom Atomic Power Station. Our response, along with actions taken, are discussed below.

Restatement of Violation:

"10 CFR 71.5 prohibits delivery of licensed material to a carrier for transport unless the licensee complies with applicable regulations of the Department of Transportation in 49 CFR Parts 170-189."

"49 CFR 173.425(b)(1) requires shipments of low-specific activity materials be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation."

"Contrary to the above, on May 30, 1985, a drum containing low specific activity shipped by the licensee was received at Richland, Washington, and was not packaged in a strong, tight package. Specifically, licensee's drum No. S-146-85 was found to have a hole in it."

This is a Severity Level III violation (Supplement V).

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Admission of Alleged Violation:

We agree that a puncture hole was discovered in drum No. S-146-85 at the Richland, Washington, site and that the drum originated at the Peach Bottom Atomic Power Station.

Reason for Alleged Violation:

Following notification, a Peach Bottom representative was sent to Richland, Washington, to investigate and review the details regarding this event with burial site personnel. Our representative investigated and was informed that the shipment arrived at Richland, Washington, with all internal bracing intact. The puncture was located just above the mid-plane of the drum and was facing forward in the trailer.

A detailed inspection of the subject drum (S-146-85) also showed some deep dents below the lid-ring. We noted that some of the deep dents (which did not puncture the drum) closely resembled the lid-ring bolting ears that stick out from this type drum in such a way that, if jammed against another drum, could have caused the same type tear or puncture. This damage could have been caused by a severe jar during transportation or other mishandling type problem after the truck left the Peach Bottom site.

Investigation at the Peach Bottom site included inspection of the lifting and handling devices, the capping tool, a review of our loading and integrity inspection procedures, and interviews with the crews involved in the loading operation of this trailer. This investigation disclosed that for this particular shipment, each shipping container was clearly and thoroughly inspected for integrity as well as other requirements such as correct placarding, shipping papers, labeling and radiation measurements. No puncture holes were identified during the inspection and loading operation.

Our exhaustive investigation of this event has not identified a scenario which could cause the puncture. No evidence has been found which would indicate that the puncture occurred before the drums were loaded on the trailer.

Significance of Violation:

The significance of the puncture hole was minimal because the drum which was punctured contained oils with low specific activity that had been solidified with concrete forming a monolithic free standing block inside the drum. The drum was used as the casting form for solidification. The intent of 49 CFR 173.425(b)(1), which requires strong, tight packages, is to avoid leakage during transportation. The type of drum which was used as the shipping container met the criteria for integrity and leakage. This type drum has been the standard in the industry for many years and in the past has been used almost exclusively for packaging of hazardous and radioactive waste for transportation. They are designed to be tight and strong and have had extensive generic testing of their design in order to meet strict Department of Transportation criteria. They were purposely used by Philadelphia Electric Company because of their strength and leak tightness during transportation.

The material in the drum remained monolithic and the contents remained in the drum even though the container integrity was breached, thereby meeting the intent of the regulations for avoidance of leakage.

Corrective Actions Taken to Avoid Future Noncompliance

Immediately after the alleged violation was reported, Philadelphia Electric Company sent Peach Bottom personnel to the burial site in Washington State to investigate the incident. Also, as a precautionary step, a loaded truck ready for shipment from Peach Bottom was unloaded, inspected, and reloaded to verify integrity of the shipment.

The site personnel responsible for handling radioactive waste were reminded of the importance of thorough inspection of all shipments for integrity along with careful and strict compliance with procedures. To ensure continued emphasis on the importance of proper handling, instructions have been issued to the labor support contractor to provide instructions to personnel assigned to the loading operations. Further, we increased controls in this area by revising the truck loading procedure and the procedure which controls solidification, packaging, and inspection of liquid and materials in preparation for shipment. The revision to the truck loading procedure now includes precautionary statements which will not allow the fork lift operator to use one container to push another, or allow the fork lift tongs to touch another container. The responsibility of the QC inspectors has been increased to

ensure that the integrity of the drums is not compromised during the loading of the truck.

Additionally, in order to reduce the likelihood of dents caused by lid-ring bolting ears contacting neighboring drums during the shipment, the truck loading procedures will be revised to orient drums on the truck with the lid-ring bolting ears protruding into the space between adjacent drums. A QC inspection of the loaded truck will check this orientation. This revised procedure will be implemented by September 30, 1985.

Date When Full Compliance Will Be Achieved:

The state of Washington, following informal negotiations and telephone discussions with the Peach Bottom site involving the incident and our site procedures, reinstated Permit #5625 effective June 17, 1985 authorizing Philadelphia Electric Company to use the commercial low-level radioactive waste disposal site at Richland.

Philadelphia Electric recognizes that continued authorization to transport and dispose of waste depends on strict adherence to procedures used for compliance to DOT/NRC regulations. Philadelphia Electric intends to maintain such compliance by strict adherence to these procedures, regulations, and inspections.

Philadelphia Electric Company believes that full compliance to regulations has been provided. All corrective action associated with this event will be achieved by September 30, 1985.

Should you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,



DPH:vdw

cc: Dr. T. E. Murley, Administrator, Region I, USNRC
T. P. Johnson, Resident Site Inspector