Met-Ed / GPU

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Writer's Direct Dial Number

September 8, 1980
TLL 440

EA-80-43
Recd. 9/11/80

Office of Inspection and Enforcement
Attn: Mr. Victor Stello, Jr., Director
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Combined Inspection Reports 50-320/80-10 and 80-14

This letter is forwarded in response to your letter dated August 7, 1980, Mr. Victor Stello to Mr. R. C. Arnold, concerning findings associated with the subject inspections. These inspections were conducted for events involving the transportation of radioactive waste from TMI-2. We dispute Item B of noncompliance listed in the Notice of Violation, Appendix A of your letter, and request reconsideration of this finding in view of our response given under Item B in this letter.

Metropolitan Edison Company recognizes the importance of conforming to all regulations and with its numerous shipments of radioactive waste, both in the past and in the future, continues to upgrade its programs for radioactive waste packaging. We are proud of our past successful record of waste packaging and feel that except for the two cases discussed below, our efforts to maintai a high-quality program have been well demonstrated.

Metropolitan Edison Company is committed to the proper performance of activities associated with radioactive material handling, shipment, and management. Therefore, all efforts have been applied to insure that rules and regulations are complied with and that our actions reflect this firm commitment. Should any weaknesses in our radwaste handling activities be identified, prompt corrective action is initiated to remedy such weakness. This commitment has been recognized by the NRC and is documented in NRC correspondence to the licensee, Grier to Arnold, dated August 12, 1980. Furthermore, periodic review of our procedures, in addition to periodic training sessions, reflects continuous efforts to maintain acceptable levels of performance when performing operations associated with radioactive waste.

The following comments are in response to Appendix A of your letter, dated August 7, 1980.

ITEM A

NRC Finding: "49 CFR 173.395(a)(1) requires that materials be packaged in accordance with DOT 7A, Type A packaging, and that each shipper of a

specification 7A package maintain on file a complete certification and supporting safety analysis demonstrating compliance with the Specification.

Contrary to the above, on February 6 and on March 6, 1980, Liquid Radioactive material was delivered in Type A quantities to a carrier for transport in containers which were not authorized for the shipment of liquids. The safety analysis only authorized the packaging of solid radioactive material."

RESPONSE

Containers used for liquid radioactive material shipments on February 6, 1980, did not meet the requirements specified in 49 CFR 173.395(a)(1) for liquid radioactive material containers. However, on March 23, 1980, in recognition of the lack of documentation for the certification of the containers for liquid radwaste shipment containers, we initiated a qualification test program to permit container certification. The results of this test program permitted our certification of this type container for use when shipping liquid radioactive waste. These containers now meet the requirements of 49 CFR 173. Our liquid radioactive waste shipments are packaged in accordance with DOT Specification 7A, Type A packaging requirements.

This finding is accepted by the licensee. We believe we are now in full compliance with the requirements of 49 CFR 173.395(1)(1).

ITEM B

NRC Finding: "49 CFR 173.393(g) Requires liquid radioactive material in Type A quantities to be packaged in or within a leak resistant and corrosion resistant inner containment vessel.

Contrary to the above, on February 6 and March 6, 1980, the inner containment vessels of the packages leaked radioactive material during transport dmonstrating that the inner containers were not leak resistant. In the February 6 shipment, the valve handles were not removed and were left unprotected on the sample bomb, the inner containment vessel, resulting in the leakage. In the March 6 shipment, of the ten polyethylene bottles shipped as inner containment vessels, one was crushed and three others leaked."

RESPONSE

The findings related to the February 6, 1980, shipment of reactor coolant liquid in sample bombs implies that the container is not leak resistant. The sample bomb has been used for shipments since March, 1979, on a nearly weekly basis without any leakage. This type container was used in our test on March 23 and found not to leak. Therefore, there is demonstrated experience that the container and associated valve boundaries are leak resistant as required by 49 CFR 173.393(g).

The incident of February 6, 1980, identifies that retention of valve handles renders a boundary of the container more susceptible to leakage, procedures have been modified to require removal of these handles and installation of end caps. However, there is no indication that having handles installed on the sample bomb makes the container in violation of the regulations.

It should be noted that in our shipment of reactor coolant samples, our packaging provides three (3) protective barriers for the radioactive liquid.

The sample bomb is the first barrier. Surrounding the bomb is moisture absorbant material. The second barrier is a strong, carbon steel, sealed container. This container is surrounded by moisture-absorbant material. The package (absorbant material and two containers) is placed inside a 7A certified 55 gallon drum (third barrier). During the shipment in question, radioactive liquid was retained by the second barrier. The additional safety margin provided by the moisture absorbant material and the outer container would have had to be violated prior to the possible spread of radioactivity outside of the shipping package.

The findings of the March 6, 1980, shipment essentially states that polyethylene sample bottles are not leak resistant, and therefore, this is a violation of 49 CFR 173.393(g). A large number of shipments have been made using such bottles without any leakage. A 30-foot drop test of a container using polyethylene bottles was made on March 23, 1980, without any leakage. A 250-pound man applying his full weight to the bottle, sealed in the same manner, as the March 23, 1980, bottles were sealed, (inspected and later verified by three separate individuals) did not cause any leakage. The bottles are not necessarily leakproof, however, they are leak resistant as required by the cited regulation.

This finding is disputed; we believe that our actions were in full compliance with the requirements of 49 CFR 173.393(g).

ITEM C

NRC Finding: "49 CFR 173.392(c)(1) requires that packaged shipments of low specific activity radioactive materials transported as exclusive use must be packaged in strong, tight packages.

Contrary to the above, on June 6, 1980, the licensee delivered packages of low specific activity radioactive license materials to a carrier for transport to a waste burial site in packages which were not tight, in that when inspected on June 10, 1980, at the burial site, the bolt rings on four were sufficiently loose that they were able to be rotated by hand on the ends of the drums, and a fifth drum had a broken weld on the locking rings such that the ring could likewise be rotated."

RESPONSE

Drum rings are tightened during the packaging operation and further inspected as they are loaded on the shipping conveyance. Records for the shipment in question do not provide verification that each individual drum ring was, in fact, properly tightened.

Procedures have been implemented to provide verification for tightness for each drum ring. In addition, the use of improved methods of drum preparation have been implemented to provide full assurance that tightness of the drum lid and ring has been achieved. Improved tooling is presently utilized for drum preparation prior to shipment. The use of electrical impact wrenches achieve tightness while providing detection of faulty welds associated with the drum closure device.

This finding is accepted by the licensee. We believe we are now in full compliance with 49 CFR 173.392(c)(1).

Enclosed please find check no. 011101 in the amount of $5,000.00 in payment of the fines associated with Items A and C of this combined inspection report.

Sincerely,

for G K Hovey
R. C. Arnold
Senior Vice-President

RCA:LJL:dad

cc: B. H. Grier
J. T. Collins
B. J. Snyder