CHARLES H. CRUSE
Vice President
Nuclear Energy

Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657
410 495-4455

BGE

December 17, 1996

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

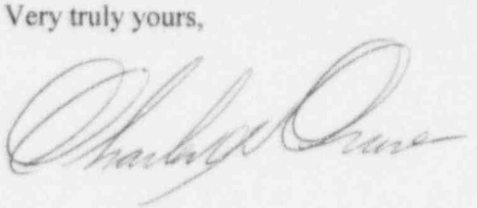
SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Reply to Notice of Violation -- NRC Region I Inspection Report Nos. 50-317(318)/96-07

REFERENCE: (a) Letter from L. T. Doerflein (NRC) to C. H. Cruse (BGE), dated November 19, 1996, NRC Region I Integrated Inspection Report Nos. 50-317/96-07 and 50-318/96-07 and Notice of Violation

In response to Reference (a), Attachment (1) is provided.

Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



CHC/RCG/bjd

Attachment

cc: D. A. Brune, Esquire
J. E. Silberg, Esquire
Director, Project Directorate I-1, NRC
A. W. Dromerick, NRC
H. J. Miller, NRC
Resident Inspector, NRC
R. I. McLean, DNR
J. H. Walter, PSC

ATTACHMENT (1)

REPLY TO NOTICE OF VIOLATION NOS. 50-317(318)/96-07-02

BREACHED SHIPPING CONTAINER

Notice of Violation Nos. 50-317/96-07-02 and 50-318/96-07-02 describes a non-conformance involving the loss of integrity of a radioactive materials shipment. The Notice of Violation States, in part, that:

> *"10 CFR 71.5 requires, in part, that licensees who transport licensed material outside the confines of its plant or other place of use comply with the applicable requirements of 49 CFR 170 through 189. 49 CFR 173.421(a)(1) requires that packages used to ship excepted limited quantities of Class 7 (radioactive) material comply with the general package design requirements of 49 CFR 173.410. 49 CFR 173.410 requires, in part, that each package used to ship Class 7 (radioactive) material be designed such that the package will be capable of withstanding the effects of any vibration or acceleration that may arise under normal conditions of transport, without deterioration in the effectiveness of the package.*
>
> *Contrary to the above, on May 24, 1996, the licensee shipped a package (Radioactive Shipment No. 96-00066) containing Class 7 (radioactive) materials, which subsequently arrived at its destination on May 29, 1996, with a 5 to 6 inch hole on the underside of the package."*

I. REASON FOR THE VIOLATION

On May 24, 1996 Baltimore Gas and Electric Company shipped radioactive material from the Calvert Cliffs Nuclear Power Plant to Chem-Nuclear Systems Inc. of Barnwell, South Carolina which upon receipt inspection was found to have a 5 to 6 inch hole on the underside of the sea-land container on the transport truck. No contamination was found external to the hole in the floor of the sea-land container.

The radioactive material consisted of an excepted package-limited quantity shipment (UN2910) containing scaffold material contaminated with solid metal oxides and was packaged and shipped in a 20-foot sea-land container loaded on a transport vehicle. Upon receipt of the container, Chem-Nuclear Systems Inc. performed a receipt survey and found the discrepancy. Baltimore Gas and Electric Company was then notified of the discrepancy.

Chem-Nuclear Systems Inc. inspected the container to see if the scaffolding had shifted and caused the hole in the wooden floor. It was determined that a vendor supplied scaffold rack had placed a concentrated load at the location of one of the scaffolding rack wheels and had caused the hole in the container flooring. Further investigation was performed at Calvert Cliffs Nuclear Power Plant to determine why the contents had shifted during transport. The investigation determined the scaffolding was properly packaged and internally braced prior to shipment. The investigation also determined that an emergency stop could have resulted in the damage, however, the carrier did not substantiate this finding , but did convey that the travel route did include rough construction areas.

The primary cause of this violation was the failure to place sufficient load bearing surfaces under the scaffold rack wheels which would preclude the puncturing of the wooden floor of the sea-land container.

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REPLY TO NOTICE OF VIOLATION NOS. 50-317(318)/96-07-02

BREACHED SHIPPING CONTAINER

II. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

In response to this event, the General Supervisor-Radiation Safety issued a memorandum to the Materials Processing Supervisor on August 8, 1996, directing immediate actions to be taken to prevent further occurrences. These actions included, in part, inspecting all appropriate containers to ensure internal bracing and flooring is adequate to assure that load bearing surfaces will support the materials within the package. The use of weight distributing plates or other means will be required when necessary to prevent punching holes in shipping containers.

In addition, the owner of the sea-land container, RUST Scaffold Rental, was notified of the apparent concentrated floor loading problem with the shipment and the need to specify packaging requirements for scaffold racks or similar shipments. Baltimore Gas and Electric Company requested RUST to inform other users of sea-land containers of this issue to prevent similar occurrences.

III. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

The following changes have been made to Radiation Safety Procedures (RSP-2-204 and RSP 2-202);

A. All packages and containers of radioactive material will be inspected prior to shipment to ensure the material inside is properly stabilized to prevent shifting during transport. Special care will be taken to inspect for heavy concentrated loads which could perforate the package. The use of weight distributing plates or other means will be required when necessary to prevent punching holes in shipping containers. This inspection will either be performed prior to shipment or when the material is originally packed.

B. Additional instructions will be provided to the drivers of radioactive material shipments to notify Baltimore Gas and Electric Company (shipper) of any instances where an emergency stop has occurred which may cause a load to shift in transit.

Radiation Safety personnel have been briefed on the cause and corrective actions associated with this event and lessons learned have been incorporated into the Radiation Safety Technician Continuing Training Program.

Baltimore Gas and Electric Company has distributed a notice of the problem on the Nuclear Network to make other utilities aware of this issue.

IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on August 8, 1996 when inspection criteria were implemented via the General Supervisor-Radiation Safety memorandum.