



June 19, 2001

Mr. Frank J. Congel, Director  
Office of Enforcement  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

RE: Reply to Notice of Violation (EA-01-029)

Dear Mr. Congel:

On May 21, 2001, the U.S. Nuclear Regulatory Commission issued a Notice of Violation to the Texas Engineering Experiment Station Nuclear Science Center (NSC) because of the shipping violations that occurred on December 4, 2000.

In response to the Notice of Violation, the NSC accepts the violations (see attachment).

The related civil penalty (\$2,400) will be submitted to the Director of the Office of Enforcement by June 21, 2001.

Sincerely,

A handwritten signature in black ink, appearing to read "Glen N. Williams".

Glen N. Williams  
Assistant Dean, Dwight Look College of Engineering  
Associate Director, Texas Engineering Experiment Station

Attachments: Reply to Notice of Violation

cc: David B. Matthews, Division of Regulatory Improvement Programs  
Roland Haden, Director, Texas Engineering Experiment Station  
Don Russell, Deputy Director, Texas Engineering Experiment Station  
Way Kuo, Executive Associate Dean, Texas Engineering Experiment Station  
Carol Cantrell, Assistant Dean, Finance and Administration  
Glen Williams, Associate Director, Texas Engineering Experiment Station  
W. Dan Reece, Director, Nuclear Science Center

# **Texas Engineering Experiment Station Nuclear Science Center**

## **Reply to the Notice of Violation**

**June 18, 2001**

### **I. Restatement of Violation I**

10 CFR 71.5(a) requires that a licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR parts 170 through 189.

49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the offeror must insure by examination or appropriate tests, that: the packaging is proper for the contents to be shipped; each closure device of the packaging, including required gasket, is properly installed, secured, and free of defects; and each special instruction for filling, closing, and preparation of the packaging for shipment has been followed.

Contrary to the above, on December 4, 2000, the licensee delivered to a carrier for transport Class 7 (radioactive) material package for 35.0 GBq and 1.6 GBq of Bromine-82 and Copper-64, respectively, and the licensee failed to ensure the closure device was properly secured. In addition, the package was not closed and secured as required by the manufacture's certification, in that a securing device was not installed on the container's restraining "T" bar as described in the packaging instructions.

### **A. Reason for the Violation**

The NSC accepts the violation. The principal reasons for the violation were:

- The NSC reactor operator who was handling the samples noticed that there was no securing bolt available for the restraining "T" bar of the shipping container. Then, however, he took the verbal assurance of the Acme truck driver that the shield would be secured in the truck. The NSC operator failed to report the absence of the securing bolt to the certified shipping personnel who was working in the same area.
- In addition, the certified shipping personnel failed to examine the package and relied on the verification of the reactor operator.

Even though the NSC accepts the violation, we believe there should be a limit of responsibility if gross negligence occurs in events that follow. As we discovered by talking directly with the Acme truck driver, the worker receiving the shipment for FedEx noted that the "T" bar was unsecured and should have refused the shipment at that point. Given that the shield was (probably) dropped and the sources came out, the shipment should have been stopped much earlier in transit and certainly should have been stopped after any breach of shielding. In fact, we believe that the continuation of the shipment (the shield at that point was certainly not in the same configuration in which it left the NSC) is the primary cause of any potential exposure to the general public. However, we also realize that the NSC contributed to the cause of the incident and accept the violation.

**B. Corrective Actions Taken and Results Achieved**

Immediate actions taken after the NSC discovered the issue include:

- The NSC immediately stopped all shipments.
- The NSC investigated the event with the employees responsible for shipping and identified the causes of the event.
- The NSC management initiated management review of all radioactive shipments until further notice. Currently, three independent reviews are performed on all shipments.
- The NSC immediately underwent shipping training for all hazmat workers.
- The NSC assures that each shipping shield has a securing mechanism attached to it.

Long-term actions include:

- The NSC will continue to visually verify the integrity of each shield and securing mechanism.
- The NSC will further enhance the shipping program by means of quality re-training and supervised shipments.

**C. Corrective actions that will be taken to avoid further violations**

No further actions are planned on the NOV issue.

**D. Date when Full Compliance will be Achieved**

The NSC is presently in full compliance.

**II. Restatement of Violation II**

10CFR 71.5(a) requires that a licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with

the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR parts 170 through 189.

49 CFR 172.702 requires that each hazmat employer shall ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained in the requirements of Subpart H of 49 CFR Part 172. The terms hazmat employer and hazmat employee are defined in 49 CFR 171.8.

Contrary to the above the licensee did not provide training for its reactor operations hazmat employees involved in the December 4, 2000, shipment in the requirements of Subpart H to 49 CFR Part 172, and the licensee is a hazmat employer in 49 CFR 171.8.

**A. Reason for the Violation**

The NSC accepts the violation. The reason for the violation was:

- The shipping training was documented only for the health physics staff (“shipper qualification program”). The NSC did not keep track of the shipping training records for reactor operators.

However, it should be noted that by our procedure no shipments can leave the NSC without the signature from certified shipping personnel who supervise the shipment and verify that the shield is in correct configuration. We still believe that the reactor operator, who loaded the source in the shield, was appropriately trained for shipping, especially when we consider that he knew that the lid of the shield should be secured and asked the truck driver for a securing device.

**B. Corrective Actions Taken and Results Achieved**

The immediate actions taken after the NSC discovered this issue include:

- The NSC immediately provided training for all hazmat workers.
- The hazmat and general shipping training was given as part of radiation controls and safety re-qualification on March 22 and 23, 2001.

Long-term actions include:

- The NSC will incorporate the hazmat re-training during the operator re-qualification.
- The training will be followed by a written test, and the results will be documented.
- The NSC will re-train all shippers once every three years.

**C. Corrective Actions that will be taken to avoid further violations**

No further actions are planned on the NOV issue.

**D. Date When Full Compliance will be Achieved**

The NSC is presently in full compliance.



TEXAS ENGINEERING EXPERIMENT STATION  
 THE TEXAS A&M UNIVERSITY SYSTEM  
 COLLEGE STATION, TEXAS 77843-3124  
 (979) 845-1451

DATE  
 18-JUN-2001

CHECK NO.  
 L0612012

-88-130-  
 1119

Two Thousand Four Hundred & 00/100\*\*\*\*\*

DOLLARS

PAY TO THE ORDER OF

AMOUNT  
 \*\*\*\*\*2,400.00

US Nuclear Regulatory Commission  
 11555 Rockville Pike  
 One White Flint North  
 Director, Off of Enforcement  
 Rockville, MD 20852-2738

VOID 60 DAYS FROM DATE

*Carol J. Cantrell*  
*C. R. Hodens*

Bank of America  
 Wichita Falls, Texas 76301

⑈0612012⑈ ⑆111901302⑆ ⑈002330002683⑈

TEXAS ENGINEERING EXPERIMENT STATION COLLEGE STATION, TEXAS 77843-3124, (979) 845-1451

CHECK NUMBER	VENDOR INVOICE	INVOICE DATE	VENDOR ACCOUNT	VOUCHER	AMOUNT
L0612012				E53248	2,400.00

