

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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November 1, 1984

U.S. Nuclear Regulatory Commission  
Region II  
ATTN: James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

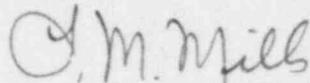
Dear Mr. O'Reilly:

Enclosed is our response to R. C. Lewis' October 2, 1984 letter to H. G. Parris transmitting IE Inspection Report Nos. 50-259/84-37, -260/84-37, -296/84-37 for our Browns Ferry Nuclear Plant which appeared to have been in violation of NRC regulations. We have enclosed our response to the Notice of Violation. If you have any questions, please call Jim Domer at FTS 858-2725.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager  
Nuclear Licensing

Enclosure

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RESPONSE  
NRC INSPECTION REPORT NOS.  
50-259/84-37, 50-260/84-37, AND 50-296/84-37  
R. C. LEWIS'S LETTER TO H. G. PARRIS DATED  
OCTOBER 2, 1984

Enclosure 1

The following violations were identified during an inspection conducted on September 10-17, 1984. The severity levels were assigned in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C).

Item 1 - (50-259/260/296/84-37-01)

Technical Specification 6.3.A.7 requires that radiation control procedures be adhered to.

Contrary to the above, radiation control procedures were not adhered to as follows:

Example 1a

Although licensee procedure BF-RLM-400, paragraph 5.20 requires that windows of contaminated laboratory hoods be lowered to the position indicated on the hood, windows of unattended contaminated laboratory hoods were raised above the maximum height required to ensure 100 linear feet face velocity into the hood.

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons for the Violation

1. Procedure BF-RLM-400.5.20 states: Hood windows should be lowered to level indicated on hood for control of fumes and provide physical protection in operations involving the handling of flammable, explosive, or radioactive materials.

By design, the five hoods in the laboratory serve as the primary ventilation exhaust path for the chemical laboratory. To ensure adequate ventilation, protect against positive pressurization, and maintain climate control, the hood exhaust fans are left in continuous operation. Each hood is designed to provide a constant volumetric exhaust air flow regardless of window position. This feature ensures that a technician working at a hood, with the window completely raised, is still provided with positive ventilation protection. Position 1 ensures that a minimum of 100 linear feet per minute air flow through the hood to minimize any possibility of backflow. The position of the

window to meet this requirement does not allow for work within the hood. Unobstructed work requires that the hood window be raised. In addition, hazardous material is never left unattended or unsealed in a hood, regardless of window position. There has never been an incident of airborne or personnel contamination attributable to a mispositioned hood window. Based on these facts, a formal window position accountability procedure was never implemented.

3. Corrective Steps Which Have Been Taken and Results Achieved

An accountability system has been implemented, and the lab shift supervisors have been directed to monitor the window positions. Live-time training was provided to all chemical unit personnel stressing the importance of compliance with and adherence to laboratory rules. Responsibility for monitoring and enforcing these rules was reiterated to each laboratory shift supervisor.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

No further corrective action is necessary.

5. Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

Example 1b

Although licensee procedure RCI 1, paragraph D.1 requires that items being removed from contamination zones or potentially contaminated items be contained in plastic unless otherwise directed and surveyed by health physics, liquid radioactive samples removed from a posted contamination zone, a sample hood, were not properly contained and were not evaluated by health physics.

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons for the Violation

RCI-1 is written in a generic manner to address all work in c-zones. It does not specifically address the gathering and handling of chemistry samples. The RCI-1 authorizes only HP personnel to survey items removed from c-zones. The laboratory is located within a regulated area, and only small quantities of radioactive materials are handled and stored within the laboratory. Those quantities that are removed from within the contaminated hoods for spectroscopy analysis are immediately sealed in plastic. The sealing operation is performed on a clean laboratory table to prevent the possibility of carrying contamination into the gamma spectroscopy shields. These shields must remain contamination free in order to eliminate background interference of spectroscopy analysis. Shield contamination creates unnecessary equipment downtime. Samples that require several analyses must be moved to different locations within the laboratory because of the location of certain analytical instruments. It is impractical to move all such equipment into the hoods. Chemistry technicians handle large numbers of radioactive samples, and there have been only a few, very minor, contamination incidents within the laboratory.

3. Corrective Steps Which Have Been Taken and Results Achieved

"Live-time" training with all chemical unit personnel was conducted and part of the laboratory was designated as a c-zone. All radioactive material handling operations are performed inside this zone which includes four of the five laboratory hoods. For this reason, laboratory technicians are highly trained and are qualified to handle radioactive material on a routine basis.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

An exception to RCI-1 to allow the handling of radioactive chemistry samples is being evaluated.

5. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by January 1, 1985, when all necessary procedures have been revised or new procedures written.

Example 1c

Although licensee radiation work permit SWP-01-06668 requires that cloth glove liners and rubber or surgical gloves be worn when working in contaminated laboratory hoods, personnel were observed working in contaminated laboratory hoods wearing only cloth glove liners.

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons for the Violation

Under normal conditions, an adequate supply of disposable (PVC) surgical gloves are available for laboratory use. These disposable gloves are more desirable than the rubber c-zone gloves because these type gloves contain fixed contamination. The c-zone rubber gloves are also laundered in various detergents that cannot be completely removed, and they do not allow the dexterity necessary for lab work. Due to the sensitivity requirements of several critical chemical analyses, minute quantities of these contaminants can invalidate sensitive isotopic or analytical analyses.

Understandably, lab technicians are hesitant to use laundered rubber c-zone gloves when the PVC gloves are unavailable. The technician observed by the NRC inspector was performing a timed chemical analysis. The lab supply of PVC gloves was exhausted, and new rubber gloves were not readily available. Because of the lack of PVC or rubber gloves, the technician had attempted to compensate by wearing a double pair of cotton glove liners. However, this did not meet the requirements of the SWP in effect for the work being performed.

3. Corrective Steps Which Have Been Taken and Results Achieved

"Live-time" training of all chemical unit personnel was conducted stressing the importance of following RCI-1 requirements. Corrective personnel action was taken against the technician involved. The reorder quantities of the disposable PVC gloves were increased, and a supply of new rubber gloves has been established in the laboratory.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

No further action is planned.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on October 1, 1984, following completion of the actions described above.

Item 2 (50-259/260/296/84-37-02)

10 CFR 19.11(d) requires that Parts 19 and 20, the license, license conditions, operating procedures and NRC Form 3 be conspicuously posted.

Contrary to the above, required documents and forms or notices which describe the document and state where it may be examined were not conspicuously posted.

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

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons For the Violation

TVA had previously considered the existing posting to meet the intent of 10 CFR 19. Some improvement is possible to make the posting more conspicuous.

3. Corrective Steps Which Have Been Taken and Results Achieved

A maintenance request was submitted to move location of bulletin board at west gatehouse and to improve the visibility.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

The official bulletin boards will be audited on a monthly basis to ensure all posted material meets regulatory requirements.

4. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by November 23, 1984.