400 Chestnut Street Tower II

March 27, 1981

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

This is in response to your February 25, 1981, letter to H. G. Parris, Report Nos. 50-259/80-36, -260/80-30, and -296/80-30, concerning a special appraisal of the health physics program at the Browns Ferry Nuclear Plant. Enclosed is our response to Appendix B Notice of Violation. If you have any questions, please call Jim Domer at FTS 857-2014.

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 Regulation and Safety

Enclosure

ENCLOSURE

RESPONSE TO IE INSPECTION REPORT NOS.
50-259/80-36, 50-260/30-30, 50-296/80-30
APPENDIX B NOTICE OF VIOLATION
(HEALTH PHYSICS APPRAISAL)
BROWNS FERRY NUCLEAR PLANT
(DOCKET NOS. 50-259, 50-260, 50-296)

Violation

A. 10 CFR 71.12 requires that persons delivering licensed material to a carrier for transport in a package for which a certificate of compliance has been issued comply with the terms and conditions of the license, certificate, or other approval.

Contrary to the above, the terms and conditions of Certificate of Compliance 6568, Revision 0 were not met in that on August 14, 1980 and August 18, 1980 shipments of radioactive material were made where the weight of the liner and contents exceeded the weight restrictions (10,000 pounds) specified.

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

1. Admission or Denial of the Alleged Violation

TVA agrees to the alleged violation.

2. Reasons for the Violation if Admitted

The safety analysis report for the LL-60-150 cask was submitted by TVA to NRC for approval in 1970. This document indicated that the weight of the liner and contents would be 12,500 pounds. The wording issued for the weight limit on the cask's Certificate of Compliance 6568, Revision 0, was interpreted by plant employees to apply only to the weight of the liner's contents.

3. Corrective Steps Which Have Been Taken and Results Achieved

When the discrepancy concerning the weight of the liner's contents was brought to our attention, NRC was immediately requested to revise the certificate to reflect the proper wording as expressed in the original SAR. On October 24, 1980, revision 2 of the certificate of compliance was issued by NRC stating that the weight of the liner and contents be limited to 12,500 pounds.

Shipping was ceased until the revision to the certificate of compliance was issued by NRC. This brought the shipments into compliance with both the certificate and the original SAR.

4. Corrective Steps Which Will Be Taken to Avoid Further Violation

Further violations will be avoided by adherence to the revised certificate of compliance and the Radioactive Materials Shipment Manual.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on November 14, 1980, with issuance of the revision to the Radioactive Materials Shipment Manual.

Violation

B. Technical Specification 6.3.B requires that written radiation control procedures shall be reviewed by the Plant Operations Review Committee (PORC) and approved by the plant superintendent prior to implementation.

Contrary to the above, radiation control procedures were in use which had not been reviewed by PORC and approved by the plant superintendent, in that Health Physics Section Instruction Letters, which contained detailed radiological control instructions, had not been reviewed by PORC and approved by the plant superintendent.

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

1. Admission or Denial of the Alleged Violation

TVA denies the alleged violation. Section Instruction Letters (SIL's) have traditionally been used by TVA for plant sections to issue instructions of an administrative nature, or concerning responsibilities, methods, or procedures to be followed by members of the section in areas where PORC review and plant superintendent approval are not required. This is defined in N-OQAM, Part III, Section 1.1. TVA has reviewed the Health Physics Section Instruction Letters specifically cited by NRC inspectors and does not agree that these contain information which should be in radiological control instructions. TVA will review the remainder of the section instruction letters to ensure none contain instructions which appropriately belong in PORC-reviewed, plant superintendent-approved radiological control instructions. Our review will be completed by May 1, 1981.

Violation

C. Technical Specification 6.3.D.1 requires that each high radiation area in which the intensity of radiation is greater than 100 mrem/hour but less than 1,000 mrem/hour shall be barricaded and conspicuously posted as a high radiation area.

Contrary to the above, high radiation areas were not barricaded and/or conspicuously posted in that:

a. Access to the unit 2 control rod drive header platform, a high radiation area, located east of the drywell on the 565' elevation was not barricaded on October 21, 1980.

b. Access to the unit 2 control rod drive platform, a high radiation area, located west of the drywell on the 565' elevation was not barricaded on October 20, 1980.

c. Access ladders to the top of units 1 and 3 shield walls, in the vicinity of the high pressure turbines, were not posted as high radiation areas on October 22, 1980. High radiation areas existed on top of the shield walls.

d. A high radiation area located in the vicinity of a fill line in the radwaste building west truck loading bay was posted as a radiation area.

This is a Severity Level IV Violation (Supplement IV).

1. Admission or Denial of the Alleged Violation

TVA agrees to the alleged violation.

2. Reasons for the Violation if Admitted

a. Employees working in this area neglected to replace the metal cover over the ladder upon completion of the work.

b. Access was controlled by four health physics technicians and one security officer who were within 30 feet of the ladder; however, this does not meet the technical specification wording of "barricaded." Employees involved did not fully understand this subtle difference.

c. These ladders had previously been posted and barricaded as high radiation areas but the signs and barricade were removed by persons unknown.

d. The incident resulted from radioactive material settlement after a radwaste cask filling operation and after the radiation survey was performed.

3. Corrective Steps Which Have Been Taken and Results Achieved

a. Access to the area was modified by a sheetmetal enclosure w.. a hinged door secured by a controlled padlock.

b. Refer to (a) above.

c. The access ladders have been barricaded by addition of a hinged cover and controlled padlock. In addition, signs have been reposted.

d. The area has been posted and barricaded as a high radiation area.

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

a. A sign will be permanently attached to the doors stating that the door must be locked when unattended.

b. Refer to (a) above.

c. No further action other than that described under 3 (c) above is planned.

d. A special instruction has been issued to health physics employees requiring a survey be performed a sufficient period of time after cask filling is completed to allow for settling of radioactive particles.

5. Date When Full Compliance Will Be Achieved

All corrective measures except 4 (a) and 4 (b) are complete. The signs described by 4 (a) and 4 (b) will be installed by May 1, 1981.

Violation

D. 10 CFR 20.103(a) requires that for the purposes of determining compliance with the requirements of this section, the licensee shall use suitable measurements of concentration of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas.

Contrary to the above, suitable measurements of concentrations of radioactive materials in air were not used to detect and evaluate airborne radioactivity in restricted areas in that no evaluation was performed for an air sample taken in the vicinity of an individual performing a weld on the torus on October 22, 1980 to determine the adequacy of the respiratory protection device worn.

This is a Severity Level IV Violation (Supplement IV).

1. Admission or Denial of the Alleged Violation

TVA agrees to the alleged violation.

2. Reasons for the Violation if Admitted

It is not known whether a sample was not collected or whether the sample and/or analysis was misplaced.

3. Corrective Steps Which Have Been Taken and Results Achieved

No corrective actions for this particular incident can be taken. Repeat violations of this nature will be avoided as described below.

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

Corrective action will be taken by continuing to reduce the use of lapel air samplers to a minimum through the increased use of fixed low volume air samplers.

Increased emphasis will be placed on the proper use of lapel air samplers through the employee orientation program and in prework conferences with craftsmen. In addition, all lapel air samplers will be logged out and logged in by health physics employees and a notation made when the sample is evaluated. When samples are not returned by craftsmen, a radiological incident report will be completed against the individual concerned.

5. Date When Full Compliance Will Be Achieved

We expect that full compliance will be achieved by June 1, 1981, when additional fixed low volume air samplers are received.

Violation

E. 10 CFR 20.203(c)(3) requires that high radiation area controls be established in such a way that no individual will be prevented from leaving a high radiation area.

Contrary to the above, high radiation area controls were not established in such a way that an individual could leave a high radiation area in that, on October 24, 1980, the door providing access to the unit 1 reactor water clean-up pump 1B room was secured with a padlock which would prevent an individual from leaving the area if the padlock were inadvertently locked.

This is a Severity Level IV Violation (Supplement IV).

1. Admission or Denial of the Alleged Violation

TVA agrees to the alleged violation.

2. Reasons for the Violation if Admitted

The door was mistakenly padlocked closed for radiation control while the original lock was being repaired.

3. Corrective Steps Which Have Been Taken and Results Achieved

The padlock was immediately removed.

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

Maintenance employees will be instructed in their safety meetings that hasp locks may not be placed on high radiation doors.

5. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by April 15, 1981.

Violation

F. Technical Specification 6.3A requires that detailed written radiation control procedures shall be prepared, approved, and adhered to.

Contrary to the above, detailed written radiation control procedures were not prepared, approved, and/or adhered to, in that:

a. On October 21, 1980, three individuals exited from the 577' elevation of the turbine building to the clean area without using the hand and foot monitor and three other individuals failed to use the hand and foot monitor for five seconds as required by Station Procedure RCI-1, Radiation Program, paragraph III.C.1.

b. On October 22, 1980, demineralizer filters were moved in the radwaste building without taking precautions to minimize the spread of contamination as required by Station Procedure RCI-1, paragraph III.D.

c. On October 26, 1980, an individual was observed in a posted high radiation area without a portable radiation dose rate measuring instrument required by Station Procedure RCI-9, Appendix A, paragraph III.C.3.

d. The station does not have a procedure which would require an area radiation monitor to be removed from service when the calibration due date has passed. An area radiation monitor remained in service on October 22, 1980 monitoring the radiation levels in the radwaste compactor room although the calibration due date had passed.

This is a Severity Level IV Violation (Supplement IV).

1. Admission or Denial of the Alleged Violation

TVA agrees to the alleged violations specified in F (a), F (c), and F (d). TVA denies the violation specified in F (b). There are no specific procedures defining actions needed to minimize the spread of contamination during movement of demineralizer filters. TVA maintains that in situations similar to the type described in F (b), necessary precautions are most effectively implemented by a case-by-case decision based on the judgment of the health physics technician involved. To date, this method of minimizing the spread of contamination has been effective. The incident cited was an isolated case of precautions taken not being fully adequate due to the fact that the particular box chosen to transport the filters was not water-tight. However, the intent of RCI-1, paragraph III.D, was met in that precautions were taken to minimize the spread of contamination by isolating the used filters in a box before movement.

2. Reasons for the Violation if Admitted

a. The violation occurred due to employees ignoring instructions regarding monitoring themselves on exiting a controlled area.

b. Not applicable.

c. The violation occurred due to employees not following procedures.

d. The violation occurred due to procedural deficiency.

3. Corrective Steps Which Have Been Taken and Results Achieved

a. Plant management has provided for a letter regarding personnel monitoring policy to be posted periodically.

b. Not applicable.

c. Plant management has provided for a letter to all plant employees emphasizing the need to use dose rate meters in high radiation areas to be posted periodically. Area radiation monitors were installed in the high radiation areas near the CRD headers. A designated walkway was established and the probe was located in the highest dose rate area in the travel path. The readout is located such that employees can see a readout during travel across the zone.

d. The instrument involved was immediately replaced. In addition a section instruction letter was issued to provide for the removal from service of area radiation monitors when calibration due dates are passed.

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

a. Periodic surveys on use of the monitors have been and will continue to be performed. Employees identified as failing to use monitors will be disciplined appropriately.

b. Not applicable.

c. Appropriate disciplinary actions will be taken on individuals violating requirements for using dose rate instruments.

d. No further corrective action is necessary.

5. Date When Full Compliance Will Be Achieved

a. Full compliance has been achieved.

b. Not applicable.

c. Full compliance has been achieved.

d. Full compliance was achieved on January 21, 1981, when the revised section instruction letter was issued and fully implemented.