

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

MAY 14 P 1:52

May 9, 1984

U.S. Nuclear Regulatory Commission  
Region II  
ATTN: James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

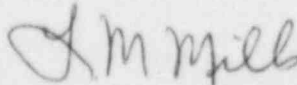
Dear Mr. O'Reilly:

Enclosed is our response to D. M. Verrelli's April 9, 1984 letter to H. G. Parris transmitting Inspection Report Nos. 50-259/84-10, -260/84-10, -296/84-10 regarding activities at 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.  
50-259/84-10, 260/84-10, AND 296/84-10  
D. M. VERRELLI'S LETTER TO H. G. PARRIS  
DATED APRIL 9, 1984

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, this requirement was not met in that Surveillance Instruction 4.8.B.2-3a (Airborne Effluents Weekly Gamma Isotopic) was inadequate and resulted in several errors being made during the performance of the instruction for the stack monitor (O-RE-90-252) and Unit 2 turbine building roof exhaust fan (2-RE-90-251). Although the procedure was recently revised on February 17, 1984, seven examples of problems or unclear instructions were identified as listed below:

1. Procedure 1053, Step II.C, requires that any Marinelli used on ventilation can samples should be identified uniquely and checked for background radiation prior to use. The breakers are not uniquely identified and are checked after five uses.
2. Procedure 1053, Step III.E, addressed the connection of sampling equipment according to a referenced figure but only one out of six figures displayed the pressure gauges needed to obtain data in the sample. During the collection of the samples, the equipment was not connected as specified.
3. Procedure 1053, Step F, requires that all sample valves be opened but these valves were not identified by valve numbers or the quantity of sample valves to open.
4. Procedure 1053, Step III.N, contains a formula for correcting the Marinelli beaker volume for pressure/vacuum effects. This formula, if used as implied, gives an incorrect answer. An incorrect calculation was made twice while being observed. The formula is as follows:

$$V_2 = \frac{(14.696 + \text{delta } P) \times V_1}{14.696}$$

Where delta P = Gauge reading (positive number for excess pressure  
negative number for vacuum)

The gauges used read out in inches of vacuum (30 inches equals 0 psia). However, the delta P was added to 14.696 in units of psi. A conversion factor must first be made for the gauge reading to units of psi to use in the formula. An erroneous 'V<sub>2</sub>' of 1783 was used for O-RE-90-232 and 4287 and for 2-RE-90-251.

5. Procedure 1053 A, Step III, requires the recording of the as-found position of the inlet valves to the monitor but no place in the procedure provided a space to record the position of these valves. Further, on monitor 2-RE-90-250, no identification tags were on the valves to identify them.
6. S.I. 4.8.B.2-3a, Step 2, requires recording of stack monitor channel A and B readings in counts per second. The computer program run to evaluate the data requires only one entry for the counts per second and does not specify whether to average the two values, use the low, or use the high. The analyst was unsure what to use and the low value was used in the calculation.
7. S.I. 4.8.B.2-3a data cover sheet asks 'Yes' or 'No' whether the Technical Specification criteria and Surveillance Instruction criteria are satisfied; the rule or test that this judgement is being applied to is unclear and is not specified in the procedure.

This is a Severity Level V violation (Supplement I) and applicable to all units.

1. Admission of the Alleged Violation

TVA admits the violation occurred as stated.

2. Reasons for the Violation If Admitted

Instructions specified with the report were found to be less than adequate. These instructions had been identified, as part of the water chemistry improvement program, as instructions needing review and update. The priority for review and update was revised as a result of this inspection.

3. Corrective Steps Which Have Been Taken and the Results Achieved

The instructions specified in this report (SI 4.8.B.2-3a and TI-38 Procedure 1053) have been revised to correct the violations stated. Also, more detailed continuous air monitor diagrams and sampling valve lineups have been incorporated into TI-38, Procedure 1053, to assist radiochemistry laboratory personnel in performing their duties correctly and more efficiently. Identification tags (Item 3) have been attached to all continuous air monitor sampling valves in order to eliminate the possibility of an incorrect valve alignment when obtaining a gaseous sample.

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

Chemical Unit personnel are currently in the process of reviewing and revising all surveillance instructions and supportive portions of technical instructions (TI-18, -19, and -38) performed in total or in part by the radiochemical laboratory. Instruction changes will be initiated as problem areas are identified.

5. Date When Full Compliance Will Be Achieved

All procedure review and revisions will be completed by September 30, 1984.