

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

April 10, 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:

BELLEFONTE NUCLEAR PLANT UNIT 2 - VIOLATION 50-439/81-07-01 -
FAILURE TO FOLLOW PROCEDURES WHEN INSTALLING THE MECHANICAL HEATING AND
VENTILATION STRUCTURES

This is in response to R. C. Lewis' letter dated March 18, 1981 report numbers 50-438/81-07 and 50-439/81-07, concerning activities at the Bellefonte Nuclear Plant which appeared to have been in violation of NRC regulations. Enclosed is our response to the citation.

If you have any questions concerning this matter, please get in touch with D. L. Lambert at FTS 857-2581.

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

cc: Mr. Victor Stello, Jr., Director (Enclosure) ✓
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 2
SEVERITY LEVEL V VIOLATION
FAILURE TO FOLLOW PROCEDURES WHEN INSTALLING
THE MECHANICAL HEATING AND VENTILATION STRUCTURES
50-439/81-07-01

Description of Violation

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality shall be prescribed in documented instructions, procedures, or drawings of any 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. TVA drawings 3AW0910-00-55 RW11 and 3AW0910-00-60 RW0 specify in part the detail of how to fabricate the mechanical heating and ventilation system structure. These drawings include the location of welds and type/size of welds to be made.

Contrary to the above, between February 18 and 26, 1981 the Resident Inspector identified three examples of welding performance which violate the criteria specified on TVA drawings 3AW0910-00-55 RW11 and 3AW0910-00-60 RW0.

Admission or Denial of Alleged Violation

The failure to follow procedures when installing the mechanical heating and ventilation structures occurred as cited in the violation. It should be noted that the correct revision level for 3AW0910-00-55 is 1, not 11, as stated in the subject OIE inspection report.

Reason for Violation

In the details section of the subject report, the NRC inspector stated that, "Four welds were made on February 18, 1981 at elevation 686' 6" (Detail J55-J55 of TVA 3AW0910-00-55 Revision 11) without any welds specified on the above drawing" and "Several welds were made on the mechanical heating and ventilation structure which did not coincide with the weld symbols identified on TVA drawing 3AW0910-00-55, Revision 11." The reason for these deficient areas is that work was not being performed by the craft in accordance with TVA Division of Engineering Design (EN DES) drawing(s).

In addition, the NRC inspector stated that, "The welder was performing the welds without weld cards in the immediate work area and four weld cards did not exist." Safety-related welds at Bellefonte generally are identified by engineering through the use of weld maps (isometrics) constructed from the weld detail requirements of EN DES drawings. Each safety-related weld is assigned a weld number on the weld map and a corresponding weld card for that number is issued to the craft as a process control document. Four unauthorized welds were applied to the assembly proper. No weld cards existed for these welds because they were not on the EN DES drawing. Weld cards not being in the immediate area indicates that there was improper supervisory control, i.e., the foreman over the work being performed. Bellefonte Nuclear Plant Field Construction Procedure BNP-FCP-10.7.2, Revision 0, "Handling of APC (Weld) Cards and Weld Maps," procedurally requires review of EN DES drawings against weld maps and weld cards before starting work. In this case, the procedure was not properly followed.

Corrective Action Taken and Results Achieved

The resultant fabrication errors are being documented and processed for corrective action through the nonconformance reporting system.

The responsible craft personnel have received disciplinary action and instruction in the following areas:

1. QA orientation and job rules
2. Welding orientation and test
3. BNP-FCP-10.7.2
4. Weld symbols

This combination of disciplinary action and instructions has created a greater awareness on behalf of both management and workers to fabricate plant features in accordance with approved procedures, drawings, and specifications.

Steps Taken to Avoid Further Recurrence

The responsible craft supervision is now providing training to its employees on a continuing basis.

Related to this violation is the February 20 Allegation Report A-017, "Possible Unauthorized Welding in the HVAC Plenum Area," which is still under investigation. Pending results of this comprehensive investigation, further recurrence control may be necessary. If any additional necessary corrective actions are identified as a result of the investigation into the allegation, TVA will expeditiously implement them. Any deficiencies similar to those cited will also be documented and processed for corrective action through the nonconformance reporting system.

Date of Full Compliance

TVA is in full compliance.