TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II



April 30, 1982



U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNIT 1 - RESPONSE TO VIOLATIONS 50-438/82-06-10, WELDING HVAC DUCT SUPPORT, AND 50-438/82-06-11, REACTOR BUILDING SPRAY FLUSH

This is in response to F. S. Cantrell's letter dated April 1, 1982, report numbers 50-438/82-06, 50-439/82-06, concerning activities at the Bellefonte Nuclear Plant which appeared to have been in violation of NRC regulations. Enclosed is our response to the citations.

If you have any questions concerning this matter, please get in touch with R. H. Shell at FTS 858-2688.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

M. R. Wisenburg
Nuclear Engineer

Enclosure
cc: Mr. Richard C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ENCLOSURE
BELLEFONTE NUCLEAR PLANT UNIT 1
WELDING HVAC DUCT SUPPORT

SEVERITY LEVEL VI VIOLATION 50-438/82-06-10

Description of Deficiency

10 CFR 50, Appendix B, Criterion IX and Tennessee Valley Authority (TVA) Final Safety Analysis Report, Section 17.1A.9. states:

"Measures shall be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

BNP-QCP-10.24, Rev. 5, gives the qualification requirement for a welder performing the GTAW process. BNP-QCP-10.13, Rev. 5, gives the procedure assignments for welds.

Contrary to the above, on February 24, 1982, the resident identified a welder welding on a procedure without certification or a weld assignment.

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reason for Violation

The sheet metal welder failed to follow procedure and was performing work contrary to the instructions supplied by his immediate supervisor.

Corrective Action Taken and Results Achieved

The welder involved was fabricating backup strips for use in aiding the splice welding process for hanger material.

The misfabrication or inadvertent use of backup strips is not considered to be a condition adverse to quality in that the structural integrity of the weld joint would not be affected because of the fact that the use of backup strips is optional.

BLN CONST initiated QCIR 17,388 to emphasize the subject violation. The sheet metal welder was disciplined for his action. Upon his return to work, the welder was trained in the following orientations and procedure.

1. QA orientation
2. Welding orientation
3. Weld symbols
4. BNP-QCP-10.13, Weld Procedure Assignment

The training was performed by the Project Training Office and the Assistant Sheet Metal Superintendent on March 16, 1982.

Steps Taken to Avoid Further Violations

BLN CONST has made the determination that this incident was an isolated case because of the fact that the sheet metal welder was acting against the directions of his immediate supervisor. The disciplinary action taken in this instance, including the warning of probable termination for a similar instance is sufficient action to avoid further noncompliance.

Date of Full Compliance

TVA was in full compliance on March 17, 1982.

BELLEFONTE NUCLEAR PLANT UNIT 1
REACTOR BUILDING SPRAY FLUSH
SEVERITY LEVEL VI VIOLATION 50-438/82-06-11

Description of Deficiency

10 CFR, Appendix B, Criterion XI and Tennessee Valley Authority (TVA) Final Safety Analysis Report, Section 17.1.A.11 states:

"A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program shall include, as appropriate, proof tests prior to installation, preoperational tests, and operation, of structures, systems, and components. Test procedures shall include provisions for assuring that prerequisites for the given test have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions. Test results shall be documented and evaluated to assure that test requirements have been satisfied."

Paragraph 3.1.2 of ANSI N45.2.1-1973 states the requirements for Class "B" Cleanliness.

Contrary to the above, on February 17, 1982, the resident inspector identified numerous areas in the Reactor Building Spray System where Class "B" cleanliness requirements were not met after the system had received a proof of cleanliness flush certified as satisfactory.

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reason for Violation

The resident inspector expressed concern over the flush configuration lineup, particularly the ability of TVA to assure that all spray rings had received the proper flow to provide a proof of cleanliness. It was theorized that an undetected blockage in one side of the spray ring could have occurred, thereby precluding assurance that the required cleanliness had been met. Further investigation was performed to provide assurance that no blockage existed by inserting a flexible spring-steel tape through all rings. However, during use of the spring steel tape, debris was removed from the system. TVA believes the debris was obtained from the spray nozzle stubouts, which were not cleaned during flush NSFD because of their characteristic behavior as dead legs. It should be noted that the contaminated spray nozzle stubouts within the system would have remained so regardless of the flush configuration lineup. The violation occurred because of the fact that TVA had accepted the flush as satisfactory for the entire system when in fact, the stubouts were still contaminated. The proposed cleaning of the stubouts should have been incorporated into the system flush documentation.

Corrective Action Taken and Results Achieved

TVA has drafted a cleaning procedure (NSFF) to remove the contamination from the spray nozzle stubouts and perform an inspection of the spray ring piping adjacent to each stubout. Upon approval of the procedure, cleaning and inspection will begin. In addition, steps will be taken to reclean the spray ring piping as necessary to assure that class B requirements have been met.

Steps Taken To Avoid Further Violations

Personnel responsible for preparing flush procedures have been made aware of the necessity to avoid configuration lineups which cause deadlegs to exist and where unavoidable, to identify and incorporate the cleaning of deadlegs into flush procedures. Sheppard T. Powell and Associates, Consultants for chemical cleaning and flushing have been requested for BLN consultation.

Date of Full Compliance

All corrective action will be complete by October 1, 1982.