

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 30, 1984. 36

U.S. Nuclear Regulatory Commission  
Region II

Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNIT 1 - RESPONSE TO VIOLATION 50-438/84-22-01,  
50-439/84-22-01 - FAILURE TO ESTABLISH ADEQUATE CONTROLS FOR STORAGE AND  
PRESERVATION OF PIPING ASSEMBLIES

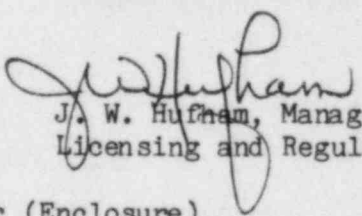
This is in response to D. M. Verrelli's letter dated October 31, 1984,  
report numbers 50-438/84-22, 50-439/84-22 concerning activities at the  
Bellefonte Nuclear Plant which appeared to have been in violation of NRC  
regulations. Enclosed is our response to the citation.

If you have any questions concerning this matter, please get in touch with  
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

  
J. W. Hufham, Manager  
Licensing and Regulations

Enclosure

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

Records Center (Enclosure)  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
RESPONSE TO SEVERITY LEVEL V VIOLATION  
50-438/84-22-01, 50-439/84-22-01  
FAILURE TO ESTABLISH ADEQUATE CONTROLS FOR STORAGE AND  
PRESERVATION OF PIPING ASSEMBLIES

Description of Deficiencies

10 CFR 50, Appendix B, Criterion XIII as implemented by FSAR Section 17.A.1.13, requires that measures be established to control the storage and preservation of materials and equipment to prevent damage or deterioration. As implemented by the TVA QA program, ANSI N45.2.2-1972, "Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (During the Construction Phase)," paragraph Nos. 2.7.4(9) and 6.1.2(4), require piping assemblies to be stored upon curbing to avoid trapping water. ANSI N45.2.2, paragraph 6.4.2 and Appendix A.3.5.2(2)(b), require items in storage to have caps, covers, plugs or other closures intact and that tape be impervious to water and not subject to cracking or drying out if exposed to sunlight, heat or cold. ANSI N45.2.2, Appendix A.3.5.2(3), as amended by Regulatory Guide (RG) 1.38, paragraph C.2.d, requires tape to be colored to contrast with materials on which they are used.

Contrary to the above, adequate measures had not been established to control the storage and preservation of piping materials in that the following was noted:

- Approximately 10 examples of safety-related assemblies off curbing and in contact with the ground.
- Approximately 40 examples of missing, damaged, or deteriorated closures on piping assemblies.
- The approved tape for use on austenitic materials is silver gray in color, close to the color of austenitic stainless steel.

TVA Response

This violation will be addressed in two parts: (A) improper storage conditions and (B) color of tape used in stainless steel.

A. Improper Storage Conditions

1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

## 2. Reasons for the Violation

Two different pipe storage areas were identified which contained piping storage area contained some of the examples; however, the majority of the deficiencies were in the steamfitter laydown yard which is located in the warehouse yard area. Bellefonte Nuclear Plant Quality Control Procedure (BNP-QCP)-1.2, "Storage," implements the requirements of ANSI N45.2.2-1972 which are referenced in this violation. Inattention to detail on the part of the steamfitter craft personnel was the cause of the deficiencies in the reactor building piping storage area. The steamfitter laydown yard contained temporary flush piping and permanent ASME code piping which was designated for use in the unit 2 reactor building. In September 1983, when the piping installation activities were deferred for the unit 2 reactor building, this piping was collected and transferred to this storage area. This area was not being used regularly and the deterioration of the piping assembly closures went undetected.

## 3. Corrective Steps Taken and Result Achieved

The cited assemblies were placed on the curbing and the damaged closures were replaced with acceptable ones the same day of identification by the NRC inspector.

## 4. Corrective Steps Taken to Avoid Further Noncompliance

A memorandum was issued by the steamfitter superintendent to reemphasize the importance of maintaining piping assemblies in proper storage conditions and to monitor all storage areas regularly regardless of the frequency of use of these areas. In addition, the steamfitter superintendent has made formal assignments to each assistant steamfitter superintendent for responsibility of monitoring the storage areas around the powerhouse and in the laydown yard.

## 5. Date When Full Compliance will be Achieved

TVA is in full compliance.

## B. Color of Tape Used on Stainless Steel

### 1. Admission or Denial of Alleged Violation

TVA denies that the tape used on austenitic stainless steel constitutes a violation.

### 2. Reasons for Denial of Alleged Violation

In 1980, TVA reviewed RG 1.38 and ANSI N45.2.2 and judged that TVA was in compliance. ANSI N45.2.2 states that "the extent to which the individual requirements of this standard shall apply will depend upon the nature and scope of the work to be performed and the importance of the item or service involved." RG 1.38 further states that "This guideline (ANSI N45.2.2)

states that tapes should be brightly colored to preclude their loss into a system. In lieu of this guideline, tapes should be colored to contrast with the materials on which they are used." During the 1980 review, TVA reviewed the requirement that tapes "contrast with the materials on which they are used" and concluded that grey duct tape contrasted sufficiently with materials on which they are used to be readily visible and to preclude their loss into a system.

In addition, TVA's specifications for external cleanliness require the removal of all tapes before system operation for those systems with temperature greater than 200°F. Also, all systems are flushed before operation to verify that the systems are free of all foreign objects.

The current TVA controls on duct tapes and system cleanliness are adequate to preclude the loss of duct tape into a system.