

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

March 11, 1983

BLRD-50-438/83-21  
BLRD-50-439/83-17

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

Dear Mr. O'Reilly:

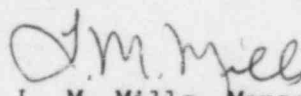
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - REBAR MISSING FROM CONTROL  
BUILDING WALL - BLRD-50-438/83-21, BLRD-50-439/83-17 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Linda Watson on February 10, 1983 in accordance with 10 CFR 50.55(e) as NCR 2214. Enclosed is our final report. TVA does not now consider the subject nonconforming condition adverse to the safe operation of the plant. Therefore, TVA will amend our records to delete the subject nonconformance as a 10 CFR 50.55(e) item.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
L. M. Mills, Manager  
Nuclear Licensing

Enclosure

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

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
REBAR MISSING FROM CONTROL BUILDING WALL  
NCR 2214  
BLRD-50-438/83-21, BLRD-50-439/83-17  
10 CFR 50.55(e)  
FINAL REPORT

Description of Deficiency

While chipping concrete in the west face of the P-line wall in the control building at the 660.0 elevation, it was discovered that no vertical reinforcement existed within an area 30 inches wide, 12 inches high, and 8 inches deep that had been chipped. TVA drawing 4CW0467-X1-6 R4 indicated that vertical reinforcement bars 3/4 inches in diameter spaced on 10-inch centers should exist from elevation 649.0 to 676.0.

Safety Implications

Investigation has revealed that rebar was installed as required on both sides adjacent to the original chipped areas. However, two bars could not be located at the 660.0 elevation. Further investigations consisted of chipping a trench at five separate elevations beneath the areas in question, thus locating the two bars from elevation 649.0 to 659.0. Further examination has shown that a field change request (FCR 0-131) was initiated before the pour, instructing the craft to omit the rebar at that elevation in order to make room for piping that is to go through the wall. The lack of two rebars in this area will not affect the structural capability of the wall and the system for control of rebar was in affect (via the FCR). Therefore, TVA does not believe this condition would result in any adverse affects on the plant, and does not consider 10CFR50.55(e) to be applicable.

Discussion resulting from Telecon on February 18, 1983

Below is information on our quality assurance program relating to the verification of installation of rebar as requested by NRC Inspectors Watson and Conlon during a telecon on February 18, 1983.

Inspection of reinforcing steel for concrete pours in Category 1 structures is governed by BNP-QCP 2.1, "Rebar, Embedment, and Concrete Formwork" and TVA General Construction Specification G-2, "Plan and Reinforced Concrete." Reinforcing bars are installed in accordance with approved Division of Engineering Design drawings. Before concrete forms are placed, the civil QC inspector inspects the reinforcing steel. The following criteria is used:

1. Reinforcing bars shall be free from mud, oil, ice, snow, and other non-metallic coatings that would adversely affect bonding.

2. Spacing of reinforcing bars shall be verified to be within specified limits with criteria provided.
3. Reinforcing bar bends shall be visually examined for indications of cracks and proper bend diameters.
4. Reinforcing bars shall be verified to be adequately supported and tied prior to concrete placement.
5. Completion of cadwell splicing shall be verified.

After the civil QC inspector is satisfied that rebar is acceptable, the concrete pour card (BNP-QCP 5.3, Attachment A) is signed which releases the carpenters to form the pour. After completion of forming, the civil QC inspector verifies compliance of the forms and visually reinspects the reinforcing to assure that preform configuration has been maintained. Final acceptance and release for pouring is indicated on the pour card.