

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

November 12, 1982

WBFD-50-390/82-63  
WBFD-50-391/82-60

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:

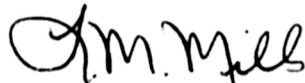
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - SPENT FUEL POOL GATES -  
WBFD-50-390/82-63, WBFD-50-391/82-60 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Don Quick on June 1, 1982 in accordance with 10 CFR 50.55(e) as NCR WBN NEB 8005. Our first interim report was submitted on July 2, 1982. Enclosed is our final report. The submittal date of this report was discussed with Inspector R. V. Crlenjak on November 8, 1982. This deficiency has also been reported on the Bellefonte Nuclear Plant as NCR BLN NEB 8005.

If you have any questions, 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, DC 20555

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ENCLOSURE  
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
SPENT FUEL POOL GATES  
NCR WEN NEB 8005  
10 CFR 50.55  
WBRO-50-390/82-63, WBRO-50-391/82-60  
FINAL REPORT

Description of Deficiency

The two spent fuel pool gates (SFPG) (one to the transfer canal and one to the cask loading area) were analyzed under new design criteria (i.e., to seismic requirements in accordance with Regulatory Guide 1.13) and found to be inadequate. The cause of the deficiency was the lack of an adequate design criteria.

Safety Implications

Structural failure of the gates during a seismic event could result in damage to stored spent fuel elements. This could result in radiation levels in the spent fuel pool area higher than those assumed in the plant safety analysis, and thus could result in doses to plant personnel and the public greater than has been analyzed.

Corrective Actions

TVA has reviewed the manufacturing records and inspection reports for the gates and has determined that they conformed to the initial design requirements. The gates were then analyzed to establish modification requirements to ensure that they will meet the requirements of Regulatory Guide 1.13. The gates required structural reinforcement, installation of an upper and lower middle guide restraint, and deletion of the existing middle restraint, in the operating position.

TVA will modify the gates under ECN 3475 so that they will meet all requirements of Regulatory Guide 1.13. This will eliminate the possibility of structural failure of the gates during a seismic event. The design drawings have been revised to reflect these modifications. The actual field modifications to the gate will be completed by March 1, 1983.

To prevent recurrence, TVA is writing a site-specific design criteria for the subject gates incorporating these requirements. This criteria will be issued by December 17, 1982.