

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 1, 1982

BLRD-50-438/82-43

BLRD-50-439/82-39

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:

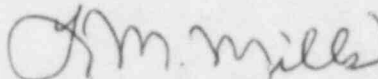
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - SPENT FUEL POOL GATES -
BLRD-50-438/82-43, BLRD-50-439/82-39 - REVISED FINAL REPORT

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 BLN NEB 8005. This was followed by our first interim report dated July 2, 1982 and our final report dated September 17, 1982. Enclosed is our revised final report. The reason for the revision is to clarify the corrective action of the report. This deficiency has also been reported for our Watts Bar and Sequoyah Nuclear Plants as NCRs WBN NEB 8005 and SQN NEE 8012.

If you have any questions concerning this matter, please get in touch with R. H. Shell at ITS 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
SPENT FUEL POOL GATES
NCR BLN NEB 8005
BLRD-50-438/82-43, BLRD-50-439/82-39
10 CFR 50.55(e)
REVISED FINAL REPORT

Description of Deficiency

The four spent fuel pool gates (one to each transfer canal and one to each cask loading area) were reanalyzed under new design criteria (i.e., to seismic requirements in accordance with Regulatory Guide 1.13) and found to be inadequate. The cause of this deficiency was the lack of 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 areas 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 Action

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. TVA will modify the gates, under ECN 1509, so they will meet all the requirements of Regulatory Guide 1.13. This will eliminate the possibility of structural failure of the gates during a seismic event. To prevent recurrence, TVA has written a plant-specific design criteria incorporating these requirements for the subject gates.

The gates will be structurally reinforced and have two additional sets of restraints in both the operating and stored positions. The design drawings have been revised depicting the modifications. Work on the gates will be completed by February 28, 1983, for unit 1 and July 31, 1984, for unit 2.