

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

March 31, 1982

WBRD-50-390/82-06, -391/82-06
BLRD-50-438/82-03, -439/82-03
HTRD-50-518/82-03, -519/82-03
-520/82-03, -521/82-03
PBRD-50-553/82-03, -554/82-03
YCRD-50-566/82-012 -567/82-02

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



Dear Mr. O'Reilly:

WATTS BAR, BELLEFONTE, HARTSVILLE, PHIPPS BEND, AND YELLOW CREEK
NUCLEAR PLANTS - REPORTABLE DEFICIENCY - ENGINEERING CHANGE REVIEW
AND HANDLING - WBRD-50-390/82-06, -391/82-06 - BLRD-50-438/82-03,
-439/82-03 - HTRD-50-518/82-03, -519/82-03, -520/82-03, -521/82-03 -
PBRD-50-553/82-03, -554/82-03 - YCRD-50-566/82-02, -567/82-02

The subject deficiency was initially reported to NRC-OIE, Region II,
Inspector Ross Butcher on December 15, 1981 as Audit M81-13,
Deficiency Nos. 2, 3, and 4. In accordance with paragraph 50.55(e)
of 10 CFR Part 50, we are enclosing our second interim report for
the Watts Bar and Bellefonte Nuclear Plants and our final report for
the Hartsville, Phipps Bend, and Yellow Creek Nuclear Plants on the
subject deficiency. We anticipate transmitting the next report for
Watts Bar and Bellefonte on or before August 2, 1982.

If you have any questions, please get in touch with Jim Domer at FTS
858-2725.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

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

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ENCLOSURE

WATTS BAR, BELLEFONTE, PHIPPS BEND, YELLOW CREEK
AND HARTSVILLE A AND B NUCLEAR PLANTS
ENGINEERING CHANGE NOTICE REVIEW AND HANDLING
10CFR50.55(e) REPORT NO. 2 (INTERIM)
AUDIT M81-13, DEFICIENCY NOS. 2, 3, AND 4

Description of Deficiency (Deficiency 2)

EN DES-EP 4.02 R9, Figure 2, "Engineering Change Notices (ECNs) - Handling," states in part that Thermal Power Engineering (TPE) Branch review must be marked "'Yes' if the ECN requires change to a safety-related system or change in a conceptual document . . . for which at least one TPE branch is responsible"; and "if 'Yes' above, the cover sheet originator enters 'N/A' and his initials where a TPE approval signature is not needed: approval of all TPE branches is not always required."

Contrary to the above, numerous ECNs which involved safety-related changes were not routed or reviewed by the responsible branch(es). (The audit cited one example for Watts Bar and nine examples for Bellefonte.)

Safety Implications

Insufficient ECN review could result in a deficient design change being implemented which could adversely affect safe plant operations.

Interim Progress/Corrective Action

This deficiency has been evaluated by appropriate design projects in EN DES. The results are as follows:

Interim Progress

Watts Bar and Bellefonte - The extent of this deficiency is still under evaluation by EN DES.

Corrective Action

Hartsville and Phipps Bend - The design project has reviewed a representative sample of ECNs associated with these plants and has determined that the ECNs are in compliance with the provisions of EN DES-EP 4.02. This deficiency has been determined to have no application to Hartsville or Phipps Bend.

Yellow Creek - The design project has reviewed all ECNs issued to date (ECNs 1 through 464). ECNs 397, 421, and 431 should have been marked "Yes" for TPE branch review but were marked "No." The ECNs involved a safety-related change and have been revised by the design project to incorporate reviews by the appropriate branches. This deficiency has been discussed with applicable design project personnel and they were instructed to continue to comply with EN DES-EP 4.02 with special emphasis in these areas.

Description of Deficiency (Deficiency 3)

EN DES-EP 4.02 R9, Figure 3, "Engineering Change Notices - Handling," states in part that the "Nonconformance Report (NCR) Required" block must be marked "'Yes' if the project or a branch has prepared or will prepare a nonconformance report related to the design change. See footnote 1, page 1."

Footnote 1, page 1, states, "A nonconformance report (see EN DES-EP 1.26) must be processed when an issued design document must be changed to correct a significant or recurring condition which could have resulted in a required safety-related function not being fulfilled. This excludes changes for preplanned design development, improvement of an already satisfactory design, changes that are directed by new or revised standards or regulations, and nonsafety-related changes."

Contrary to the above, numerous ECNs which involved conditions adverse to quality were generated without the associated issuance of an NCR. (The audit cited three examples for Watts Bar and 12 examples for Bellefonte.)

Safety Implications

Failure to generate an NCR could result in the potential generic implications of the deficiency from being fully examined. Actions to prevent the deficiency from recurring are not addressed also. This condition could adversely affect safe plant operations.

Interim Progress/Corrective Action

This deficiency has been evaluated by appropriate design projects in EN DES. The results are as follows:

Interim Progress

Watts Bar and Bellefonte - The extent of this deficiency is still under evaluation by EN DES.

Corrective Action

Hartsville, Phipps Bend, and Yellow Creek - Hartsville and Phipps Bend Design Projects have reviewed a representative sample of ECNs associated with the projects. Yellow Creek Design Project has reviewed all ECNs issued to date (ECNs 1 through 464). The results of these reviews indicate that this deficiency has no application to Hartsville, Phipps Bend, or Yellow Creek.

Description of Deficiency (Deficiency 4)

EN DES-EP 4.02 R9, Figure 3, "Engineering Change Notices - Handling," includes instructions for filling out the ECN cover sheet. For example, it requires the "QA Applies" block to be marked "Yes" if the ECN is safety-related . . ." and the "NCR Required" block to be marked "Yes" if the project or a branch has prepared or will prepare a nonconformance report related to the design change"

Contrary to the above, numerous ECN cover sheets were marked improperly, thus omitting requirements for the "QA Applies, Seismic Analysis Required, or NCR Required" blocks. (The audit cited four examples for Watts Bar and 15 examples for Bellefonte.)

Safety Implications

Failure to properly and completely mark ECN cover sheets could result in insufficient review and/or dispositioning of a safety-related design change. This condition could ultimately result in a deficient design being approved for use and thereby adversely affect safe plant operations.

Interim Progress/Corrective Action

This deficiency has been evaluated by appropriate design projects in EN DES. The results are as follows:

Interim Progress

Watts Bar and Bellefonte - The extent of this deficiency is still under evaluation by EN DES.

Corrective Action

Hartsville and Phipps Bend - The design project has reviewed a representative sample of ECNs associated with these plants and has determined that the ECNs are in compliance with the provisions of EN DES-EP 4.02. This deficiency has been determined to have no application to Hartsville or Phipps Bend.

Yellow Creek - The design project has reviewed all ECNs issued to date (ECNs 1 through 464). ECN 316 was issued with the "QA Applies" block marked "No" but it should have been marked "Yes" because the ECN was safety-related. ECN 316 was reissued February 10, 1982, with the "QA applies" block marked "Yes" (YCP 820210 100).

This deficiency was discussed with applicable YCP personnel, and they were instructed to continue to comply with EN DES-EP 4.02 with special emphasis in these areas.