

CHATTANOOGA, TENNESSEE 37401

USNRG REGION II
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ATLANTA, GEORGIA

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BLRD-50-439/82-47

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

Dear Mr. O'Reilly:

BELLEVILLE NUCLEAR PLANT UNITS 1 AND 2 - VALVES NOT DESIGNED TO DESIGN CRITERIA - BLRD-50-438/82-53, BLRD-50-439/82-47 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on August 4, 1982 in accordance with 10 CFR 50.55(e) as NCR BLN BLP 8222. This was followed by our interim reports dated August 31, 1982 and March 11, 1983. Enclosed is our final report.

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

Records Center (Enclosure)
Institute of Nuclear Power Operations
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Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
VALVES NOT DESIGNED TO DESIGN CRITERIA
NCR BLN BLP 8222
BLRD-50-438/82-53, BLRD-50-439/82-47
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Containment isolation valves 1YQ-IFSV-500, 1YQ-IFSV-510, 2YQ-IFSV-500, and 2YQ-IFSV-510 do not conform to the design criteria N4-NI-D740 in that they should have been classified 1E and receive trained power. They also do not meet the "automatic or remote manual" requirement of the criteria.

The deficiency was disclosed in performing the corrective action in NCR BLNQAB8101, and the apparent cause of the deficiency was a design error.

Safety Implications

Since the isolation valves are controlled solely by the hot sample room operator, highly radioactive liquid could be dumped into the hotwell after a Loss of Coolant Accident (LOCA) because the operator could be sampling, totally unaware of a LOCA. This condition, if left uncorrected, would violate containment integrity during accident conditions, thus adversely affecting plant safety.

Corrective Action

TVA has issued engineering change notice (ECN) 1577, to change isolation valves 1YQ-IFSV-500, 1YQ-IFSV-510, 2YQ-IFSV-500, and 2YQ-IFSV-510 from non-1E power to class 1E power, and to provide an isolation signal to automatically close the isolation valves.

Under this ECN TVA has also reviewed and corrected all affected functional control logic diagrams schematics and solid-state control system cable interconnect drawings of the sampling and water quality systems.

This deficiency only applies to the design aspect of the valves and not to the construction implementation since the valves were never installed. The date of completion for the design change was July 26, 1983. The corrected design was issued at that time and properly reflects the design criteria.

Any action(s) required to prevent recurrence will be handled by nonconformance report (NCR) BLNQAB8101, which deals with generic implications of failure to implement design criteria in design drawings.