TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

September 15, 1983

BLRD-50-438/82-51
BLRD-50-439/82-46

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:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - DEFICIENCY IN UNDERVOLTAGE PROTECTION DURING AN ACCIDENT - BLRD-50-438/82-51, BLRD-50-439/82-46 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on July 27, 1982 in accordance with 10 CFR 50.55(e) as NCR BLN EEB 8205. This was followed by our interim reports dated August 25 and November 19, 1982 and January 17, 1983. Enclosed is our fourth interim report. We expect to submit our next report by April 19, 198[illegible]

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
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
DEFICIENCY IN UNDERVOLTAGE PROTECTION DURING AN ACCIDENT
NCR BLN EEB 8205
BLRD-50-438/82-51, BLRD-50-439/82-46
10 CFR 50.55(e)
FOURTH INTERIM REPORT

Description of Deficiency

During a design review, it was determined that the present design of the additional level of under- or overvoltage protection does not fully comply with the requirements as stated in Bellefonte Final Safety Analysis Report Question 430.38 and the guidelines in NRC branch technical position PSB-1. Misinterpretation of these requirements by TVA caused the original design not to consider a degraded voltage concurrent with an accident. Because of this misinterpretation, the time delay selected to initiate separation of the Class IE distribution system from the degraded offsite power system will not permit connection to the alternate or emergency power systems soon enough to ensure adequate voltages for the required safety-related motors.

Interim Progress

TVA has completed its analysis to determine the voltage and time delay setpoints as discussed in our previous report. This analysis is currently being reviewed to ensure adequacy. In addition, design and procurement activities associated with Engineering Change Notice (ECN) 1559 are currently in progress.