



Omaha Public Power District
444 South 16th Street Mall
Omaha NE 68102-2247

August 6, 1996
LIC-96-0106

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

References: 1. Docket No. 50-285
2. Letter from OPPD (W. G. Gates) to NRC (Document Control Desk)
dated November 16, 1995 (LIC-95-0218)
3. Letter from NRC (L. R. Wharton) to OPPD (T. L. Patterson)
dated July 5, 1996

**Subject: Response to Request for Additional Information (RAI) on Technical
Specification Change Related to Safety-Related Inverters (TAC No.
M94814)**

On July 8, 1996, the Omaha Public Power District (OPPD) received the NRC's RAI
relative to OPPD's Technical Specification change provided in Reference 2.
Attached please find OPPD's response to this RAI.

If you should have any questions, please contact me.

Sincerely,

T. L. Patterson
Division Manager
Nuclear Operations

Attachment

TLP/d11

c: Winston & Strawn (w/o Attachment)
L. J. Callan, NRC Regional Administrator, Region IV
L. R. Wharton, NRC Project Manager
W. C. Walker, NRC Senior Resident Inspector

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OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION UNIT NO. 1

RESPONSE TO REQUEST FOR INFORMATION (RAI)
TECHNICAL SPECIFICATION CHANGE RELATED TO SAFETY-RELATED INVERTERS

NRC Request No. 1:

Please provide a brief electrical design description addressing the Fort Calhoun technical specification change for safety-related and non-safety inverters, attendant 120 Vac buses, and alternate power source or sources for these buses.

OPPD Response:

Please refer to the Fort Calhoun Station (FCS) Updated Safety Analysis Report (USAR) Section 8.3.5 and Figure 8.1-1, which provide the appropriate information.

NRC Request No. 2:

Explain why removing 120 Vac instrument panels AI-42A and AI-42B from the Fort Calhoun technical specifications will not result in degrading the treatment of the inverters that normally supply power to these panels.

OPPD Response:

Under the Maintenance Rule for component reliability and demand failures, the non-safety-related inverters on the 120 VAC instrument panels AI-42A and AI-42B will be treated the same as the safety-related inverters. Preventative maintenance on the inverters is performed consistent with the reliability centered maintenance practices in accordance with the FCS Preventive Maintenance (PM) program. The ability to perform maintenance on the inverters is enhanced by allowing more time for troubleshooting and corrective maintenance.

As noted in a telephone conference on June 27, 1996 between OPPD and the NRC/NRR, OPPD has performed a study which concluded that in a normal plant alignment, loss of AI-42A and AI-42B will not result in a plant trip.

NRC Request No. 3:

The Standard Technical Specifications explicitly notes that two hours are permitted for a normally inverter-supplied 120 VAC vital bus to be connected to an alternate power source if the inverter is inoperable.

Explain why the proposed Fort Calhoun Technical Specification change does not explicitly address this.

OPPD Response:

As stated on page 2 of the application for amendment, the note in the Standard Technical Specifications is not applicable because Technical Specification (TS) 2.7(2) only allows one of the conditions listed in TS 2.7(2). The Standard TS have two separate Limiting Conditions for Operation (LCO), one for the inverter and one for the vital bus, that can be entered simultaneously. The two hours is the time allowed by the LCO for an inoperable vital bus in Standard TS. The current revision of the Standard TS (NUREG-1432 Rev. 1) no longer states the two hour requirement, it only directs that the LCO for distribution systems be entered with any vital bus de-energized.

Since TS 2.7(2) only allows one of the conditions listed, having both an inverter and vital bus inoperable at the same time is a circumstance in excess of those addressed by TS 2.7, which requires entry into TS 2.0.1 and a plant shutdown. The proposed change is more conservative than the Standard TS because it would not allow any vital bus to be de-energized at the same time an inverter is inoperable.

NRC Request No. 4:

Verify that for the proposed technical specification change regarding safety-related and non-safety inverters that the battery equalizing charges are applied with these inverters in operation.

OPPD Response:

Both safety-related and non-safety-related inverters are used continuously while their station battery feed is under equalize charge. The equalizing charge voltage of the station batteries is 136 ± 0.5 VDC. Inverter input is rated up to 140 VDC.