UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

DEC 9 1992

Docket No. 50-285
License No. DPR-40

Omaha Public Power District
ATTN: W. G. Gates, Division Manager
Nuclear Operations
444 South 16th Street Mall
Mail Stop 8E/EP4
Omaha, Nebraska 68102-2247

SUBJECT: RESPONSE TO NRC INSPECTION REPORT 50-285/92-22

Thank you for your letter of November 23, 1992 in response to our lettter and Notice of Violation dated October 22, 1992. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

A. Bill Beach, Director
Division of Reactor Projects

cc:
LeBoeuf, Lamb, Leiby & MacRae
ATTN: Harry H. Voigt, Esq.
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Washington, D.C. 20009-5728

Washington County Board
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ATTN: Jack Jensen, Chairman
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IE01

Combustion Engineering, Inc.
ATTN: Charles B. Brinkman, Manager
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Nebraska Department of Health
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bcc to DMB (IE01)

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RIV:C:DRP/TSS	D:DRP			
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12/ /92	12/ /92			

Omaha Public Power District
444 South 16th Street Mall
Omaha, Nebraska 68102-2247
402/636-2000

November 23, 1992
LIC-92-332

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, DC 20555

References: 1. Docket No. 50-285
2. Letter from NRC (A. B. Beach) to OPPD (W. G. Gates) dated October 22, 1992

Gentlemen:

SUBJECT: NRC Inspection Report No. 50-285/92-22 Reply to a Notice of Violation (NOV)

The subject report transmitted a NOV resulting from an NRC inspection conducted August 30 through October 10, 1992 at the Fort Calhoun Station. Attached is the Omaha Public Power District response to this NOV.

If you should have any questions, please contact me.

Sincerely,

W. G. Gates

W. G. Gates
Vice President - Nuclear

Attachment

WGG/grc

c: LeBoeuf, Lamb, Leiby & MacRae
J. L. Milhoan, NRC Regional Administrator, Region IV
R. P. Mullikin, NRC Senior Resident Inspector
S. D. Bloom, NRC Project Manager

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REPLY TO A NOTICE OF VIOLATION

VIOLATION

During an NRC inspection conducted on August 30 through October 10, 1992, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

> 10 CFR Part 50, Appendix B, Criterion XVI, and the Fort Calhoun Quality Assurance Plan, Revision 3, Section 10.4, Paragraph 4.2.5, require, in part, that corrective actions associated with significant conditions adverse to quality shall preclude repetition.
>
> Contrary to the above, the licensee's corrective action to preclude the loss of 480-Vac busses during an abnormal electrical alignment failed to prevent recurrence. On September 1, 1992, three 480 Vac busses were electrically tied together and supplied through one breaker, resulting in the breaker tripping open on an overload condition. One of the corrective actions from a similar event, on April 12, 1992 (monitoring the current on the busses), was inadequate in that the proceduralized maximum current monitored was the incorrect value to prevent a bus overload.
>
> This is a Severity Level IV violation.

OPPD Response

1. Reason for Violation

A Root Cause Analysis (RCA) was completed by Omaha Public Power District (OPPD) for this event. The root cause was determined to be that the administrative current limit for the primary side of transformer T1B-4C was based on the Long Time Delay (LTD) design trip setpoint (2240 amps on the secondary side of transformer T1B-4C) for breaker 1B4C, while the LTD actual trip setpoint was calibrated using a nominal 1600 amps due to test equipment limitations. As a result of this inconsistency, the administrative current limit of 200 amps (primary side of transformer T1B-4C) was not low enough to preclude the breaker from tripping. Either the administrative current limit needed to be lower or the breaker calibration needed to be performed using a higher test input current to ensure the LTD actual trip setpoint would be closer to the LTD design trip setpoint.

A similar event occurred on April 12, 1992 when power through 480 VAC breaker 1B3A was lost while in an abnormal electrical lineup. This event was described by NRC Inspection Report 50-285/92-09 and Licensee Event Report 92-15. OPPD personnel reviewed this event in April 1992 and concluded that the breaker functioned properly and appeared to trip within the expected range. Therefore, deficiencies in the method of calibration were not suspected at that time.

2. Corrective Actions That Have Been Taken

The administrative current limit in procedure OI-EE-2B has been revised to 150 amps for the primary side of all six 4160/480 VAC transformers. The basis for this change is the calibration input test current of a nominal 1600 amps (corresponding to 173 amps at 4160 volts, providing a 23 amp margin prior trip) for the 480 VAC supply breakers. This change should preclude overload bus tripping during abnormal bus alignments. Operator training has been provided on the circumstances of this event and the new limitations in OI-EE-2B.

Design Engineering evaluated the worst case Design Basis Analysis (DBA) loading on the 480 VAC busses. For all breakers except 1B3C and 1B4B, the load was calculated to be below 1500 amps and therefore was satisfactorily enveloped by the existing calibration method. Breakers 1B3C and 1B4B were determined to have a worst case Design Basis Analysis (DBA) loading of approximately 1600 amps. Following the September 1, 1992 event, breakers 1B3C and 1B4B were subsequently tested using the correct criteria. The as-found condition verified that the trip points were above the projected DBA loads for buses 1B3C and 1B4B. The calibration procedures for 1B3C and 1B4B were revised to specify a 1900-2000 amp test input to ensure the LTD actual trip setpoint will be above the worst case DBA loading.

A generic implications analysis was performed and concluded that the 480 VAC breaker calibration problems revealed by this event do not extend to the 4160 VAC breakers.

3. Corrective Actions That Will Be Taken

Abnormal Operating Procedure AOP-32 has been revised to reflect the OI-EE-2B changes and will be implemented following completion of training. This will be completed by December 31, 1992.

A memorandum will be sent to design engineers and system engineers describing this event and the associated RCA. The memorandum will discuss the need for using empirical or verified data versus unverified assumptions when performing analyses. This will be completed by December 15, 1992.

4. Date of Full Compliance

OPPD is presently in full compliance.