



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

MAR 21 1994

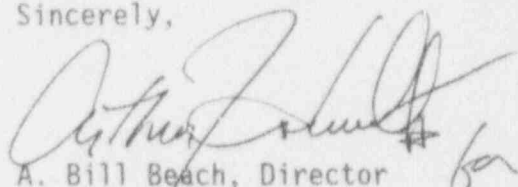
Docket: 50-285
License: DPR-40

Omaha Public Power District
ATTN: T. L. Patterson, Division Manager
Nuclear Operations
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399, Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

SUBJECT: NRC INSPECTION REPORT 50-285/93-26

Thank you for your letter of March 7, 1994, in response to our letter and Notice of Violation dated February 4, 1994. 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: Mr. Michael F. McBride
1875 Connecticut Avenue, NW
Washington, D.C. 20009-5728

Washington County Board
of Supervisors
ATTN: Jack Jensen, Chairman
Blair, Nebraska 68008

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Combustion Engineering, Inc.
ATTN: Charles B. Brinkman, Manager
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12300 Twinbrook Parkway, Suite 330
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Nebraska Department of Health
ATTN: Harold Borchert, Director
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Fort Calhoun Station
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MAR 21 1994

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan
DRSS-FIPB
Branch Chief (DRP/D)
RIV File
Lisa Shea, RM/ALF, MS: MNBB 4503

Resident Inspector
MIS System
Project Engineer (DRP/D)
Branch Chief (DRP/TSS)
Senior Resident Inspector - Cooper

RIV:DRP/A	C:DRP/A	D:DRP		
WBJones;df	WDJohnson	ABBeach		
3/21/94	3/21/94	3/21/94		

MAR 21 1994

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Branch Chief (DRP/D)

RIV File

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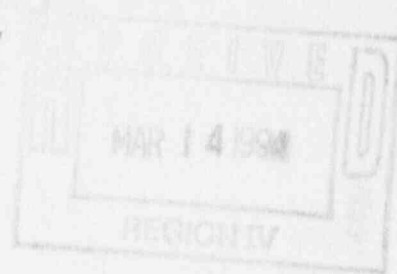
RIV:DRP/A <i>WJ</i>	C:DRP/A <i>g</i>	D:DRP <i>WJ</i>		
WBJones;df	WDJohnson	ABBeach <i>WJ</i>		
3/21/94	3/21/94	3/21/94		

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

March 7, 1994

LIC-94-0053

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 (T. L. Patterson) dated February 4, 1994

Gentlemen:

SUBJECT: NRC Inspection Report No. 50-285/93-26, Reply to a Notice of Violation (NOV)

The subject report transmitted an NOV resulting from an NRC inspection conducted November 21, 1993 through January 1, 1994 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

WGG/grc

Attachment

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

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94-0630

REPLY TO A NOTICE OF VIOLATION

Omaha Public Power District
Fort Calhoun Station

Docket: 50-285
License: DPR-40

VIOLATION

During an NRC inspection conducted on November 21, 1993 through January 1, 1994, 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 V, and the Fort Calhoun Quality Assurance Plan, Revision 3, Section 2.1, Paragraph 4.2.1, state, in part, that activities affecting quality shall be prescribed by documented instructions or procedures and shall be accomplished in accordance with these instructions or procedures.

Production Engineering Division Quality Procedure PED-QP-2, "Configuration Change Control", Part II, Section 3.2, states, in part, that specific aspects of construction or installation important to the correct functioning of the facility engineering change notice shall be listed by Design Engineering Nuclear in the Engineering Change Notice. Specific testing requirements to ensure proper installation, function, and overall system performance or operational characteristics shall also be specified, including all acceptance criteria values where appropriate.

Contrary to the above, in November 1993, a modification made to the electrohydraulic control system using facility Engineering Change Notice ECN 93-162, Revision 2, did not specify adequate testing requirements to ensure proper system operational characteristics.

This is a Severity Level IV violation (Supplement IV) (285/9326-01)

OPPD RESPONSE

A. The Reason for the Violation

Omaha Public Power District (OPPD) completed a comprehensive Root Cause Analysis (RCA) as a result of the event listed in the Notice of Violation. The analysis revealed that the root cause of the event was the failure of personnel, involved in the design and review of Engineering Change Notice (ECN) 93-162, to recognize and analyze the effects of the increased lengths of hydraulic tubing on the operation of the Electrohydraulic Control (EHC) system.

A contributing cause of this event was the inadequate pre-operational testing specified in ECN 93-162. The leak checks and calibration procedures specified did not properly demonstrate operability of the system.

B. Corrective Steps That Have Been Taken and the Results Achieved

1. A comprehensive RCA was performed on this event. OPPD determined and confirmed, through troubleshooting and testing, the cause of the turbine trip and subsequent reactor trip.
2. A Field Design Change Request and a Construction Work Order were generated to modify the EHC system tubing. Following the modification, Post Modification Testing (PMT) was successfully completed. This was completed on December 6, 1993.
3. Appropriate Production Engineering Division personnel have been briefed on this event. Emphasis on adherence to procedural guidance and attention to detail in design, pre-operational testing development and review were stressed.
4. The adequacy of the 1993 Refueling Outage EHC system ECNs, Maintenance Work Orders, Preventive Maintenance Orders and Modification Requests were reviewed for similar discrepancies. As a result of the review, no further problems were identified.
5. PMT procedures for the 1993 Refueling Outage ECNs were reviewed for similar discrepancies. As a result of the review, no further problems were identified.
6. Procedure PED-QP-2, "Configuration Change Control", was revised to require consideration of PMT requirements for Facility Change ECNs on Non-CQE systems which could challenge plant operation. In PED-QP-2, OPPD has established guidance to assist in the identification of Facility Change ECNs that have the potential to impact plant safety or reliability. Additionally, PED-QP-2 now specifies enhanced levels of review by plant personnel for those ECNs which could impact plant safety or reliability.
7. A temporary Test Working Group has been established. The group consists of experienced personnel from System Engineering, Construction Management, Design Engineering and Plant Operations. The purpose of this group is to conduct reviews, provide recommendations and approve PMT procedures for Design Change Packages, Facility Change ECNs and Temporary Modifications to ensure that testing objectives, as described in the charter, are met. These testing objectives are:
 - a) Testing and acceptance criteria are clearly established to assure that the total function of components, systems and structures affected by a modification are adequately tested.
 - b) PMT considers operating modes including normal and abnormal operating procedures and routine operational requirements (e.g., weekly swapping of equipment).

B. Corrective Steps That Have Been Taken and the Results Achieved (Continued)

The Test Working Group will perform this function until the PMT process has been further evaluated and any necessary process changes identified and implemented. The charter for this group states that the group will disband in June, 1994. At that time, the enhancements prescribed as a result of the Process Enhancement Team (PET) review discussed below are expected to have been implemented.

C. Corrective Steps That Will Be Taken to Avoid Further Violations

1. As an added assurance, a Process Enhancement Team (PET) on PMT has been convened to review and recommend changes to the PMT process and procedures. The review and recommendations will be completed by March 18, 1994. Appropriate PET recommendations will then be incorporated into procedures and training will be completed on PMT process changes as necessary. The PMT process changes and training will be completed by June 1, 1994.

D. Date When Full Compliance Will Be Achieved

OPPD is presently in full compliance based on the completed actions listed above.