



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

May 14, 1997
 LIC-97-0078

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

Reference: Docket No. 50-285

Subject: Licensee Event Report 97-002 Revision 0 for the Fort
 Calhoun Station

Please find attached Licensee Event Report 97-002 Revision 0 dated
 May 14, 1997. This report is being submitted pursuant to
 10 CFR 50.73(a)(2)(i)(B). If you should have any questions, please
 contact me.

Sincerely,

James W. Jolly
 For

S. K. Gambhir
 Division Manager
 Engineering & Operation Support

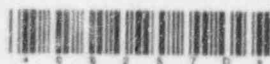
EPM/epm

Attachment 200074

c: Winston and Strawn
 E. W. Merschoff, NRC Regional Administrator, Region IV
 L. R. Wharton, NRC Project Manager
 W. C. Walker, NRC Senior Resident Inspector
 INPO Records Center

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO THE INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Fort Calhoun Station Unit No. 1

DOCKET NUMBER (2)

05000285

PAGE (3)

1 OF 5

TITLE (4)

Charging Pump Outside Technical Specification for Alternate Shutdown Panel

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																														
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER																													
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<p>OPERATING MODE (9) 1</p> <p>POWER LEVEL (10) 100</p> <p>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§ (Check one or more) (11)</p> <table border="1"> <tr> <td>20.2201(b)</td> <td>20.2203(a)(2)(v)</td> <td>X</td> <td>50.73(a)(2)(i)</td> <td>50.73(a)(2)(viii)</td> </tr> <tr> <td>20.2203(a)(1)</td> <td>20.2203(a)(3)(i)</td> <td></td> <td>50.73(a)(2)(ii)</td> <td>50.73(a)(2)(x)</td> </tr> <tr> <td>20.2203(a)(2)(i)</td> <td>20.2203(a)(3)(ii)</td> <td></td> <td>50.73(a)(2)(iii)</td> <td>73.71</td> </tr> <tr> <td>20.2203(a)(2)(ii)</td> <td>20.2203(a)(4)</td> <td></td> <td>50.73(a)(2)(iv)</td> <td>OTHER</td> </tr> <tr> <td>20.2203(a)(2)(iii)</td> <td>50.36(c)(1)</td> <td></td> <td>50.73(a)(2)(v)</td> <td rowspan="2">Specify in Abstract below or in NRC Form 366A</td> </tr> <tr> <td>20.2203(a)(2)(iv)</td> <td>50.36(c)(2)</td> <td></td> <td>50.73(a)(2)(vii)</td> </tr> </table>											20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)	50.73(a)(2)(viii)	20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)	20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)	73.71	20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)	OTHER	20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A	20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)
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20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)																																				

LICENSEE CONTACT FOR THIS LER (12)

NAME

Erick P. Matzke, Station Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

(402) 533-6855

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)

X NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

Due to questions by the plant Operations Staff, Licensing was requested to determine if a Technical Specification (TS) (2.15(4) or (5)) seven day LCO should be entered if charging pump CH-1B is inoperable, since its control circuit is on the Alternate Shutdown Panel (ASP). Licensing determined that the specification should apply. A review indicated that during 1991 with the plant in Mode 1, CH-1B had been out of service for 10 days 17.5 hours. This violated the intent of TS 2.15(4) for CH-1B. On April 14, 1997, the Plant Review Committee (PRC) determined that this event was prohibited by the plant TS.

The root causes for this problem were: (1) ineffective communication between the Omaha Public Power District (OPPD) and the NRC regarding Amendment 125 to plant TS 2.15, and (2) lack of adequate management review to ensure that the wording of TS 2.15(4) would meet the intent of the requests of the NRC.

Guidance has been provided to the operating staff to ensure the intent of the TS is met until a revision to the TS can be processed.

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TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort Calhoun Station Unit No. 1	05000285	97	002	00	2 OF 5

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

BACKGROUND

Fort Calhoun Station (FCS) Technical Specification (TS) 2.15 establishes Limiting Conditions for Operation (LCO) for Instrumentation and Control Systems. Generic Letter (GL) 81-12 on the Fire Protection Rule requested "Technical Specifications of the surveillance requirements and limiting conditions for operation for that equipment not already covered by existing Tech. Specs. For example, if new isolation and control switches are added to a service water system, the existing Tech. Spec. surveillance requirements on the service water system should add a statement similar to the following: 'Every third pump test should also verify that the pump starts from the alternate shutdown station after moving all service water system isolation switches to the local control position.'" As requested, on July 31, 1989, the Omaha Public Power District (OPPD) submitted an application for amendment of the FCS TS 2.15. The amendment was intended to address the concerns raised in GL 81-12. The application was written to be consistent with the guidance in NUREG-0212, the Combustion Engineering (CE) Standard Technical Specifications (STS). This application for amendment addressed the 7 day LCO for the instrumentation on the Alternate Shutdown Panel (ASP) but no controls were listed in either the LCO or surveillance section of the TS.

The Chemical and Volume Control System (CVCS) has a TS which allows a single pump to be inoperable indefinitely. The CVCS includes three (3) charging pumps capable of injecting into the Reactor Coolant System (RCS). However, charging pump CH-1B is the only charging pump that can be operated from the ASP.

Following the submittal a telephone conversation took place between OPPD and NRC/NRR on August 10, 1989. In the conversation the NRC/NRR Project Manager indicated that the OPPD submittal on the ASP was not complete. OPPD should have addressed "all instruments, control circuits and equipment used to enter into and maintain hot shutdown from outside the Control Room." OPPD committed to resubmit and superseded the previous submittal.

OPPD submitted Revision 1 to license amendment 89-05 (LIC-89-1022, dated October 27, 1989). This included Insert A which separately identified the instruments on the ASP (paragraph (4)) and the Emergency Auxiliary Feedwater (EAFW) Panel (paragraph (5)) of LCO 2.15. However, no equipment or control circuits were listed. The NRC rejected Revision 1 as it was written. OPPD then provided a supplement to Revision 1 (LIC-90-0009, dated January 11, 1990). This supplement added the wording "or Control Circuits" to paragraphs (4) and (5). This supplement resulted from a telephone conference on December 21, 1989 as discussed below.

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TEXT (if more space is required, use additional copies of NRC Form 366A) (17)

The NRC issued Amendment 125, dated March 19, 1990. This amendment incorporated the OPPD application dated October 27, 1989 as supplemented January 11, 1990 for the requested changes to TS 2.15 paragraphs (4) and (5). This amendment also included the requested changes to the surveillance and basis sections previously identified. Included in the introduction to the Safety Evaluation Report (SER) for Amendment 125 was the wording, "The staff was concerned that the addition to L.C.O. 2.15 did not include operability requirements for pump, valve, and other controls which appear on these panels. On January 11, 1990, the licensee, in response to our telephone request of December 21, 1989, clarified that these controls circuits would be included in the operability requirements of L.C.O. 2.15."

EVENT DESCRIPTION

Due to questions raised by the Operations Staff in December 1996, the Operations Department requested the Licensing Department to determine if the seven day LCO of TS 2.15(4) or (5) should be entered if charging pump CH-1B is inoperable, since its control circuit is on the ASP. After researching the issue a Condition Report (CR) was originated. This CR documented that TS 2.15(4) and (5) appeared to be inadequate. These TS list requirements for instrumentation but do not adequately address the controls for the equipment on the ASP. Specifically, CH-1B control function is not listed, nor is EAFW control function listed. (TS Table 3-3A does have surveillances for ASP and EAFW control circuits. The surveillances are accomplished by procedure OP-ST-ASP-0002 "Alternate Shutdown Capability Control Circuitry Verification.") This CR also noted that in response to concerns expressed by the NRC in the introduction to Amendment 125, the words "Control Circuits" were added to the TS, but, the applicable control circuits are not specifically listed in the specifications as are the instruments.

As a follow up action to the CR a review was conducted to determine if CH-1B had been inoperable for seven days or more since Amendment 125 had been approved. A review of the Control Room logs and shift turnover sheets from January 1, 1990 to March 13, 1997 indicated that during 1991 with the plant in Mode 1, CH-1B had been out of service from 2030 hours on July 6 to 1405 hours on July 17, a period of 10 days, 17.5 hours. On April 14, 1997, this information was brought to the Plant Review Committee (PRC). It was explained that although charging pump CH-1B is not specifically listed in TS 2.15(4), the 7 day intent of TS 2.15(4) for CH-1B had been violated. On April 14, 1997, the PRC determined that this event was prohibited by the plant TS. This event is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(B).

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SAFETY SIGNIFICANCE

This issue does not represent a significant nuclear safety concern. The basis for TS 2.15 states, "The operability of the Alternate Shutdown Panel (AI-185), including Wide Range Logarithmic Power and Source Range Monitors on AI-212, and Emergency Auxiliary Feedwater Panel (AI-179) instrument and control circuits ensures that sufficient capability is available to permit entry into and maintenance of the Hot Shutdown Mode from locations outside of the Control Room. This capability is required in the event that Control Room habitability is lost due to fire in the cable spreading room or Control Room."

The fundamental requirement of the ASP and credited fire safe shutdown analysis is to ensure that the plant has the capability to permit entry into and maintenance of the Hot Shutdown Mode from locations outside the Control Room. Even though the credited pump was not able to be used as directed by procedures for a period of over 10 days, research indicates the requirement listed in the basis for TS 2.15 would have been met.

FCS complies with 10 CFR 50.63 the "Station Blackout Rule." This rule requires that the station be able to safely survive a station blackout of 4 hours. Therefore, following an evacuation of the Control Room for a fire, the station can operate without any charging pumps for at least four hours. With CH-1B inoperable there would have been no significant safety impact since CH-1C would have been available within a reasonable time. Discussions with Design Engineering Nuclear (DEN) personnel indicate CH-1C would have been available in the event of a plant emergency in about one hour.

Charging pumps are credited in the current licensing basis for long term actions necessary to achieve cold shutdown. However, the charging pumps are not credited for mitigating the short term consequences of any Updated Safety Analysis Report (USAR) Chapter 14 design basis postulated accidents or anticipated operational occurrences. Therefore, this event had minimal safety significance for the plant.

CONCLUSION

The NRC requested that OPPD make changes to TS 2.15. In making the change to TS 2.15(4) OPPD failed to ensure that the change did not create any additional problems. The review of TS 2.15(4) was less than adequate.

A review of the correspondence on the change to TS 2.15(4) indicates that OPPD was not clear as to what the NRC desired in this change. A review of all

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

available correspondence indicates that the NRC consistently requested that the equipment and control circuits (for the equipment) as well as the instrumentation on the ASP be addressed in the specification. The final approved TS change was not adequate to ensure that this expectation would be communicated to the Operating Staff, as evidenced by this occurrence.

The root causes for these problems were: (1) ineffective communication between OPPD and the NRC regarding Amendment 125 to the plant TS 2.15, and (2) lack of adequate management review to ensure that the wording of TS 2.15(4) would meet the intent of the requests of the NRC.

CORRECTIVE ACTIONS

OPPD has made significant improvements since the requested changes resulting in Amendment 125. These improvements include the following items. The process for the development and submittal of license amendment requests now requires that, as a minimum, representatives from Operations, Engineering, Licensing and the NSRG review the proposed changes before approval of the PRC. Additionally, procedures and other documents that will require revision due to the proposed changes to the TS must be identified before processing through the approval process. These improvements will minimize the potential for similar events to occur.

Guidance has been provided to the Operations Staff to ensure that if CH-1B is out of service then the LCO for TS 2.15(4) shall be entered. If CH-1B cannot be restored to operable status within seven days the LCO requires that the plant be placed in hot shutdown within the next twelve hours. This guidance applies in Modes 1 and 2. This ensures that the inventory control function, as credited in OPPD's Appendix R fire safe shutdown analysis, is met.

OPPD will submit a proposed change to Technical Specifications by December 31, 1997, that clearly addresses the regulatory requirements for the Alternate Shutdown Panel and Auxiliary Feedwater Panel.

PREVIOUS SIMILAR EVENTS

No previous events involving an inadequate review of a proposed TS have occurred.