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

LIC-13-0132
September 30, 2013

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Reference: 1. Docket No. 50-285

Subject: Licensee Event Report 2013-012, Revision 0, for the Fort Calhoun Station

Please find attached Licensee Event Report 2013-012, Revision 0. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(v)(B) and 10 CFR 50.73(a)(2)(ix)(A). There are no new commitments being made in this letter.

If you should have any questions, please contact Terrence W. Simpkin, Manager, Site Regulatory Assurance, at (402) 533-6263.

Sincerely,

Louis P. Cortopassi
Site Vice President and CNO

LPC/epm

Attachment
c: S. A. Reynolds, Acting NRC Regional Administrator, Region IV
J. M. Sebrosky, NRC Senior Project Manager
J. C. Kirkland, NRC Senior Resident Inspector
L. E. Wilkins, NRC Project Manager

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Fort Calhoun Station	05000285	1 OF 3

4. TITLE

Intake Structure Crane Seismic Qualification

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
8	2	2013	2013	012 -	0	9	30	2013	FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE

5

10. POWER LEVEL

0

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☒ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☒ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Erick Matzke	402-533-6855

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On August 2, 2013, Fort Calhoun Station (FCS) Engineering identified that the intake structure crane (HE-5) seismic analysis assumes that the crane is not in operation with the hood retracted and in the parked position. The seismic analysis does not evaluate the crane's ability to withstand a seismic event when in use and an investigation identified that HE-5 was used when the raw water pumps were required to be operable. When discovered, FCS was shutdown in MODE 5.

The crane was not in use when the condition was identified and was verified in the parked position. Compensatory actions were identified to which would allow the use of the intake crane. The condition was entered in to the station's corrective action program as Condition Report 2013-15474. A new seismic analysis to address crane use will be developed.

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NARRATIVE

BACKGROUND

Fort Calhoun Station (FCS) is a two-loop reactor coolant system of Combustion Engineering (CE) design.

EVENT DESCRIPTION

On August 2, 2013, Fort Calhoun Station (FCS) Engineering identified that the intake structure crane (HE-5) seismic analysis assumes that the crane is not in operation with the hood retracted and in the parked position. The seismic analysis does not evaluate the crane's ability to withstand a seismic event when in use and an investigation identified that HE-5 was used when the raw water pumps were required to be operable. When discovered, FCS was shutdown in MODE 5.

Heavy loads analysis FC06338, Load Drop Analysis for Intake Structure Operating Floor, had previously evaluated the potential damage of a dropped load event that could be caused by a seismic or tornado initiating condition. The analysis shows that the crane will not cause damage to the intake structure if used. However, damage to the unprotected fire protection headers that exist in the intake structure are not considered the in load drop analysis. Therefore, this piping may be damaged during a seismic event if HE-5 is in use during a seismic event. The volume of this flooding that could be produced by this event is outside of the assumptions of the intake structure internal flooding analysis and could result in all four raw water pumps becoming inoperable.

Technical Specification 2.4 states that only two Raw Water Pumps may be out of service at power operation. HE-5 is known to have been used during power operation in the last 3 years. Therefore, there could have been a condition that resulted in inoperability of all Raw Water Pumps.

This report is being submitted pursuant to 10 CFR 50.73(a)(2)(v): any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are designed to (A) shut down the reactor and maintain it in a safe shutdown condition; (B) remove residual heat; (C) control the release of radioactive material; or (D) mitigate the consequences of an accident and 10 CFR 50.73(a)(2)(ix)(A) any event or condition that as a result of a single cause could have prevented the fulfillment of a safety function for two or more trains or channels in different systems that are needed to: (1) shut down the reactor and maintain it in a safe shutdown condition; (2) remove residual heat; (3) control the release of radioactive material; or (4) mitigate the consequences of an accident.

CONCLUSION

Heavy loads analysis FC06338 did not consider damage to unprotected fire protection headers that exist in the intake structure and only was valid when the crane was parked.

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NARRATIVE

CORRECTIVE ACTIONS

The crane was verified not in use and in the parked position at the time of discovery. Compensatory actions were identified which would allow the use of the intake crane. The condition was entered in to the station's corrective action program as Condition Report 2013-15474 and a new seismic analysis to address crane use will be developed.

SAFETY SIGNIFICANCE

Technical Specification 2.4 states that only two Raw Water Pumps may be out of service at power operation. The postulated flooding event is outside of the assumptions of the intake structure internal flooding analysis and could lead to an internal flooding event that renders all four raw water pumps inoperable. However, FCS Abnormal Operating Procedure (AOP) 18, Loss of Raw Water, is written to specifically address a total loss of raw water.

SAFETY SYSTEM FUNCTIONAL FAILURE

This does represent a safety system functional failure in accordance with NEI 99-02, Revision 6.

PREVIOUS EVENTS

Eight LERs referencing the raw water pumps were identified. However, none of the LERs reviewed contained the same reason of this event, failure, or sequence of events.