



Omaha Public Power District

444 South 16th Street Mall

Omaha, NE 68102-2247

LIC-13-0035

March 26, 2013

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

Reference: Docket No. 50-285

Subject: Licensee Event Report 2013-002, Revision 0, for the Fort Calhoun Station

Please find attached Licensee Event Report 2013-002, Revision 0, dated March 26, 2013. This report is being submitted pursuant to 50.73(a)(2)(v)(C). 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

LC/epm/rjr

Attachment

c: E. E. Collins, Jr., NRC Regional Administrator, Region IV
L. E. Wilkins, NRC Project Manager
J. M. Sebrosky, NRC Project Manager
J. C. Kirkland, NRC Senior Resident Inspector

NRC FORM 366 (10-2010)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0104		EXPIRES: 10/31/2013								
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 0;">(See reverse for required number of digits/characters for each block)</p>				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.										
1. FACILITY NAME Fort Calhoun Station				2. DOCKET NUMBER 05000285		3. PAGE 1 OF 3								
4. TITLE CVCS Class 1 & 2 Charging Supports are Unanalyzed														
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				
1	25	2013	2013	002 - 0		03	26	2013		05000				
9. OPERATING MODE <div style="font-size: 2em; margin-top: 10px;">5</div>			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)											
			<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(2)(i)			<input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.46(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(i)(A) <input type="checkbox"/> 50.73(a)(2)(i)(B)			<input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input checked="" type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> 50.73(a)(2)(v)(D)			<input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> 50.73(a)(2)(ix)(A) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/> 73.71(a)(4) <input type="checkbox"/> 73.71(a)(5) <input type="checkbox"/> OTHER <small>Specify in Abstract below or in NRC Form 366A</small>		
10. POWER LEVEL <div style="font-size: 2em; margin-top: 10px;">0</div>			<input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 20.2203(a)(2)(vi)											
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	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX					
14. SUPPLEMENTAL REPORT EXPECTED								15. EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR		
<input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)								<input type="checkbox"/> NO		6	3	2013		
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)														
<p>On January 25, 2013, while preparing for a charging and letdown piping modification, it was identified that the assumed stiffness values of the supports are higher than originally documented. As a result, the supports are much more rigid and result in overstressing a portion of the Class 2 charging (CH-2014) piping. Failure of the piping could result in release of radioactive material through penetration M-3 due to the lack of double isolation. The plant was shutdown and defueled when this condition was identified and entered in to the corrective action program.</p> <p>Further analysis determined that the new calculated stiffness values over stressed the piping, which could result in pipe failure in the charging Class 2 piping during a seismic event. The Class 1 portion of the charging and Class 1 and 2 portions of the letdown piping were unaffected.</p> <p>A cause analysis is in progress, the results of which will be published in a supplement to this LER.</p>														

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CONTINUATION SHEET**

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Fort Calhoun Station	05000285	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 3
		2013	- 002	- 0	

NARRATIVE

BACKGROUND

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

The FCS chemical and volume control system (CVCS) consists in part of three charging pumps that take suction from the volume control tank and return the coolant to the reactor coolant system by way of the shell side of the regenerative heat exchanger. The heat exchanger transfers heat from the letdown coolant to the charging coolant before the charging coolant is returned to the reactor coolant system. Although the three charging pumps start upon receipt of an Engineered Safeguards signal, no credit is taken for charging pump operation in the Updated Safety Analysis Report (USAR) safety analyses and as such these pumps are not classified as Engineered Safeguards equipment.

EVENT DESCRIPTION

On January 25, 2013, while preparing for a charging and letdown piping modification, it was identified that the assumed stiffness values of the supports are higher than originally documented. As a result, the supports are much more rigid and result in overstressing a portion of the Class 2 charging (CH-2014) piping. Failure of the piping could result in release of radioactive material through penetration M-3 due to the lack of double isolation. The plant was shutdown and defueled when this condition was identified and entered in to the corrective action program.

Further analysis determined that the new calculated stiffness values over stressed the piping, which could result in pipe failure in the charging Class 2 piping during a seismic event. The Class 1 portion of the charging and Class 1 and 2 portions of the letdown piping were unaffected.

This report is being submitted in accordance with 50.73(a)(2)(v)(C), any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to control the release of radioactive material. If additional reporting criteria are identified during the causal analysis, the results will be published in a supplement to this LER.

CONCLUSION

A causal analysis is in progress. The results of the analysis will be published in a supplement to this LER.

CORRECTIVE ACTIONS

The CVCS system was previously declared inoperable due to the condition described in LER 2012-016-0.

FCS will analyze and modify the CVCS pipe supports as required to conform to the piping load requirements. This action will be completed before core reload.

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NARRATIVE

SAFETY SIGNIFICANCE

Failure of the piping could result in release of radioactive material through penetration M-3 due to the lack of double isolation. The charging and HPSI pumps are credited for maintaining containment pressure during a LOCA. Therefore, if the Class 2 charging line were to break during a LOCA, the charging or HPSI pumps may not be able to maintain pressure at M-3 for a minimum of 30 minutes. However, check valve CH-198 and manual isolation valve CH-194 would be able to isolate the penetration, but are not credited in the analysis.

A causal analysis is in progress. The results of the analysis will be published in a supplement to this LER.

SAFETY SYSTEM FUNCTIONAL FAILURE

This event does result in a safety system functional failure in accordance with NEI-99-02.

PREVIOUS EVENTS

13 LERs with event dates since January 1, 2010, were identified with the same reporting criteria. The condition identified in this LER is a latent condition that could not have been prevented by the corrective actions taken as a result of the LERs reviewed.

LER 2012-016-0, Unanalyzed Charging System Socket Welds to the Reactor Coolant System, identified a condition where a principal safety barrier was seriously degraded in that:

- the 2 inch socket welded fittings on RCS branch line piping cannot be qualified, and
- the 2 inch charging lines are considered to be in an unanalyzed condition exceeding thermal cycle fatigue.

The extent of condition performed as a result of the condition identified in LER 2012-016-0 resulted in the identification of the condition reported in this LER.