



*Omaha Public Power District*

444 South 16<sup>th</sup> Street Mall  
Omaha, NE 68102-2247

10 CFR 50.73

LIC-14-0045  
April 14, 2014

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

Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40  
NRC Docket No. 50-285

Reference: Letter from OPPD (L. Cortopassi) to US NRC (Document Control Desk) dated January 31, 2014. (LIC-14-0006)

**Subject: Licensee Event Report 2013-019, Revision 1, for the Fort Calhoun Station**

Please find attached Licensee Event Report 2013-019, Revision 1. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(v)(B). 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.

Respectfully,

*Louis P. Cortopassi*  
Louis P. Cortopassi *Fon*  
Site Vice President and CNO

LPC/epm

Attachment

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

**LICENSEE EVENT REPORT (LER)**

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

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 Non-Seismic Circulating Water Pipe Could Disable Raw Water Pumps									
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
12	2	2013	2013	019 - 1		4	14	2014	FACILITY NAME DOCKET NUMBER 05000
9. OPERATING MODE 3			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"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)			
			<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)			
			<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)			
			<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)			
10. POWER LEVEL 0			<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)			
			<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)			
			<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)			
			<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER			
			<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A			
12. LICENSEE CONTACT FOR THIS LER FACILITY NAME Erick Matzke TELEPHONE NUMBER (Include Area Code) 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 <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO					15. EXPECTED SUBMISSION DATE		MONTH    DAY    YEAR		
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)									
<p>On December 2, 2013, NRC inspectors questioned the validity of an operability determination performed by the station on a non-safety grade pipe in the Raw Water (RW) pump vaults. The concern was determined to be valid and on December 3, 2013 at 0038 CST, an operability evaluation for Condition Report (CR) 2013-22090 confirmed operability of the RW pumps with interim actions to prevent circulating water (CW) flow from the affected 12" pipe into the RW vault during a hypothetical seismic event. An interim compensatory action to maintain operability of the raw water pumps was to disabled the screen wash pumps thereby preventing flow to the RW vault due to a pipe break caused by a hypothetical seismic event.</p> <p>A cause analysis determined that the station had misapplied design information to a non-safety class system due to design engineering personnel failing to use expected human performance tools for validating assumptions, procedure use and adherence, during modification activities in the early 1970's.</p> <p>A design change was completed to eliminate the adverse interaction noted above.</p>									

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE	
Fort Calhoun Station	05000285	YEAR	SEQUENTIAL NUMBER	REV NO.	2	OF 3
		2013	- 019 -	01		

**NARRATIVE****BACKGROUND**

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

**EVENT DESCRIPTION**

On December 2, 2013, NRC inspectors questioned the validity of an operability determination performed by the station on a non-safety grade pipe in the Raw Water (RW) pump vaults. The concern was determined to be valid and on December 3, 2013, at 0038 CST, an operability evaluation for Condition Report (CR) 2013-22090 confirmed operability of the RW pumps with interim actions to prevent dates from the region for the Phase 2 Buried Piping inspection flow from the affected 12 inch pipe into the RW vault during a hypothetical seismic event. An interim compensatory action to maintain operability of the raw water pumps was to disabled the screen wash pumps thereby preventing flow to the RW vault due to a pipe break caused by a hypothetical seismic event.

This report is being submitted pursuant to 10 CFR 50.73(a)(2)(v)(B), Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (B) Remove residual heat.

**CONCLUSION**

The vulnerability described in this report has existed since the original design and installation of the spray wash system at FCS.

A cause analysis determined that the station had misapplied design information to a non-safety system due to design engineering personnel failing to use expected human performance tools for validating assumptions, procedure use and adherence, during modification activities in the early 1970's.

**CORRECTIVE ACTIONS**

A design change was issued to the station and installed that eliminated the adverse interaction noted above.

**SAFETY SIGNIFICANCE**

While the design issue noted above resulted in the system being inoperable as defined in RIS 2005-20, the CW piping is quality industrial piping. Wall thickness of the pipe was measured in three critical areas with only minor thinning of the piping. FCS has performed an analysis that demonstrates that the existing piping would not fail during a seismic event.

**SAFETY SYSTEM FUNCTIONAL FAILURE**

This does not represent a safety system functional failure in accordance with NEI 99-02, revision 7. FCS has performed an analysis that demonstrates that the existing piping would not fail during a seismic event. Therefore, this is not a safety system functional failure in accordance with the latest frequently asked questions (FAQs) for NEI 99-02.

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**NARRATIVE****PREVIOUS EVENTS**

The following LERs report inoperability of the stations RW system due to seismic concerns:

LER 2013-012, Intake Structure Crane Seismic Qualification

LER 2012-020, Raw Water Pump Anchors