



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

LIC-11-0085
August 24, 2011

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

Reference: Docket No. 50-285

Subject: Licensee Event Report 2011-009, Revision 0, for the Fort Calhoun Station

Please find attached Licensee Event Report 2011-009, Revision 0, dated, August 24, 2011. This report is being submitted pursuant to 10CFR50.73(a)(2)(iv)(A). If you should have any questions, please contact me.

Sincerely,

Jeffrey A. Reinhart
Site Vice President

JAR/epm

Attachment

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

NRC FORM 366 (10-2010)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0104		EXPIRES: 10/31/2013																																									
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 Manual Start of a Safety System																																															
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																																					
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10. POWER LEVEL <div style="text-align: center; font-size: 24px;">0</div>			<table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> 20.2201(b)</td> <td><input type="checkbox"/> 20.2203(a)(3)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(C)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> </tr> <tr> <td><input type="checkbox"/> 20.2201(d)</td> <td><input type="checkbox"/> 20.2203(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(1)</td> <td><input type="checkbox"/> 20.2203(a)(4)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(i)</td> <td><input type="checkbox"/> 50.36(c)(1)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ix)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(ii)</td> <td><input type="checkbox"/> 50.36(c)(1)(ii)(A)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iii)</td> <td><input type="checkbox"/> 50.36(c)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(A)</td> <td><input type="checkbox"/> 73.71(a)(4)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iv)</td> <td><input type="checkbox"/> 50.46(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(B)</td> <td><input type="checkbox"/> 73.71(a)(5)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(C)</td> <td><input type="checkbox"/> OTHER</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(vi)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(D)</td> <td style="text-align: right; font-size: small;">Specify in Abstract below or in NRC Form 366A</td> </tr> </table>									<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)	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" 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 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
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12. LICENSEE CONTACT FOR THIS LER																																															
FACILITY NAME Erick Matzke									TELEPHONE NUMBER <i>(Include Area Code)</i> 402-533-6855																																						
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																																															
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ABSTRACT <i>(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</i> <p>On June 26, 2011, at approximately 0125 CDT, the AquaDam®, which was providing enhanced flood protection for Fort Calhoun Station (FCS), failed after being struck by a skid loader. As a precautionary measure, plant operators used the abnormal operating procedures to align necessary plant equipment to alternate (emergency) power supplies. Emergency Diesel Generator (DG)-2 was manually started to remove bus 1A4 from offsite power. Diesel Generator (DG)-1 was manually started to remove bus 1A3 from offsite power as well. Both Emergency Diesel Generators loaded on their respective busses as designed. Offsite power remained available throughout the event. No safety-related equipment was impacted by the water intrusion. Plant equipment was realigned to the off-site power operating configuration and the emergency diesel generators were secured.</p> <p>FCS was also in a Notification of Unusual Event (NOUE), since June 6, 2011, due to high Missouri river level. River level at the time of this event was 1006 feet 6 inches mean sea level.</p>																																															

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Fort Calhoun Station	05000285	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 3
		2011	- 009	- 0	

NARRATIVE

BACKGROUND

Fort Calhoun Station (FCS) is a two-loop reactor coolant system of Combustion Engineering (CE) design. The plant has two Fairbanks Morris emergency diesel generators.

An AquaDam® is a stable water barrier used to contain, divert, and control the flow of water. The design consists of two polyethylene liners contained by a single woven outer tube. When the two inner tubes are filled with water, the resulting pressure and mass create a stable, non-rolling wall of water. AquaDam® is a registered trademark of Aqua Dam, Inc. The AquaDam® was installed as an enhancement to the existing station flood control measures. The AquaDam® added a third layer of protection and helped keep the protected area free from flood waters.

EVENT DESCRIPTION

On June 26, 2011, at approximately 0125 CDT, the AquaDam® providing enhanced flood protection for Fort Calhoun Station (FCS) failed. FCS was shutdown in Mode 5. FCS was in a Notification of Unusual Event (NOUE) due to high Missouri river level since June 6, 2011.

A maintenance crew leader was conducting clean-up activities within the protected area, using a skid loader. The skid loader inadvertently contacted and punctured the AquaDam®, and caused its failure. FCS had previously entered AOP-1, Acts of Nature, on May 22, 2011, due to high Missouri river level. In anticipation of a potential loss of off-site power as a result of wetting the station T1 (345 Kilovolt (KV)/22KV) and T1A-3 and T1A-4 (161KV/4.16KV) transformers, Operations followed procedural guidance of AOP-1 to manually start and load the Emergency Diesel Generators (EDG). At 0221, DG-2 was manually started per plant procedure; and at 0250, DG-1 was manually started. Both EDGs were loaded on their respective busses as designed. No safety-related equipment was impacted by the water. After it was concluded that there was no challenge to the station transformers and off-site power availability, DG-2 was secured at 1252 and DG-1 was secured at 1408. Offsite power, supplied by the 345KV and 161KV transmission lines, remained available throughout the event.

All safety-related flood protection barriers remained in place during the event.

At 0658 CDT, June 26, 2011, the NRC Headquarters Operations Office (HOO) was notified (Event Report 46988) per 10 CFR 50.72(b)(3)(iv)(A). This report is being made per 10 CFR 50.73(a)(2)(iv)(A).

CONCLUSION

This event was initiated by poor Human Performance and Decision Making. The AquaDam® failure caused Operations to take precautionary measures in accordance with AOP-1.

CORRECTIVE ACTIONS

FCS plant systems were returned to the appropriate configuration for the existing plant status. No additional corrective actions are required to address the EDG manual actuations.

The enhanced flood protection barrier was replaced.

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NARRATIVE

SAFETY SIGNIFICANCE

There was no safety significance to this event. Adequate procedure guidance existed to allow FCS to take precautionary actions to maintain power to necessary plant equipment. The AquaDam® was installed as enhanced flood protection and asset management; all safety-related flood protection barriers remained in place during the event.

PREVIOUS EVENTS

None