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Omaha, NE 68102-2247

10 CFR 50.73

LIC-14-0097
August 25, 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

Subject: Licensee Event Report 2014-005, Revision 0, for the Fort Calhoun Station

Please find attached Licensee Event Report 2014-005, Revision 0. This report is being submitted pursuant 10 CFR 50.73(a)(2)(i)(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.

Sincerely,

Edwin D. Dean
Plant Manager

EDD/epm

Attachment

c: M. L. Dapas, NRC Regional Administrator, Region IV
C. F. Lyon, NRC Senior Project Manager
S.M. Schneider, NRC Senior Resident Inspector

NRC FORM 366 (02-2014)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB: NO. 3150-0104			EXPIRES: 01/31/2017			
LICENSEE EVENT REPORT (LER) (See Page 2 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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollections.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 4			
4. TITLE Technical Specification Violation of Containment Integrity											
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	
6	27	2014	2014	005 - 0		8	25	2014	FACILITY NAME	DOCKET NUMBER	
										05000	
										05000	
9. OPERATING MODE		11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)									
1		<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)	
100		<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 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 checked="" 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											
LICENSEE CONTACT 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	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		
14. SUPPLEMENTAL REPORT EXPECTED					15. EXPECTED SUBMISSION DATE			MONTH	DAY	YEAR	
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO											
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) On Friday, June 27, 2014, during performance of a valve exercise test it was discovered that test swagelock plug was missing between the containment penetration and the associated outboard isolation valve. Technicians discovered the test swagelock plug resting on a nearby junction box and not in place on the containment penetration. The technicians immediately notified the Auxiliary Building Operator who was assisting with the surveillance test. Operations shift supervision were notified and operations declared containment inoperable per Technical Specification and entered a 1 hour limiting condition for operation (LCO) to restore containment integrity. The shift manager directed the technicians to reinstall the test swagelock plug on the containment penetration. At that point, operations declared containment operable and exited the associated Technical Specification LCO. Maintenance personnel exhibited weak Human Performance tool Independent Verification usage. Station personnel completed the Containment Integrity checklists prior to all containment isolation boundary maintenance and/or LLRTs being completed. Containment integrity was restored.											

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

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1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Fort Calhoun Station	05000285	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 4
		2014	- 005	- 00	

NARRATIVE**BACKGROUND**

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

FCS uses custom Technical Specifications (TSs) which define containment integrity as follows:

Containment Integrity

Containment integrity is defined to exist when all of the following are met:

- (1) All nonautomatic containment isolation valves which are not required to be open during accident conditions and blind flanges, except for valves that are open under administrative control as permitted by Specification 2.6(1)a, are closed.
- (2) The equipment hatch is properly closed and sealed.
- (3) The personnel air lock satisfies Specification 2.6(1)b.
- (4) All automatic containment Isolation valves are operable, locked closed, or deactivated and secured in their closed position (or isolated by locked closed valves or blind flanges as permitted by a limiting condition for operation).
- (5) The uncontrolled containment leakage satisfies Specification 3.5, and
- (6) The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is operable.

The TS for containment integrity 2.6(1) reads as follows:

a. Containment integrity shall not be violated unless the reactor is in a cold or refueling shutdown condition. Without containment integrity, restore containment integrity within one hour or be in at least hot shutdown within the next 6 hours, in at least subcritical and <300°F within the next 6 hours and in cold shutdown within the following 30 hours. Normally locked or sealed-closed valves (except for PCV-742A/B/C/D) may be opened intermittently under administrative control without constituting a violation of containment integrity.

EVENT DESCRIPTION

On Friday, June 27, 2014, during performance OP-ST-CCW-3005B "Component Cooling Category A and B Valve Exercise Test (for the C and D valves)" it was discovered that test swagelock plug F1 was found missing between containment penetration M-88 "Containment Purge Inlet (Direct Communicating System)" and PCV-742D "Containment Purge Air Inlet Outboard Isolation Valve." Instrument and Control (I&C) technicians discovered the test swagelock plug resting on a nearby junction box and not in place on the containment penetration.

I&C technicians immediately notified the Auxiliary Building Operator (NSOA) who was assisting with the CCW surveillance test. Operations shift supervision were notified and operations declared containment inoperable per Technical Specification 2.6(1)a and entered a 1 hour LCO to restore

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containment integrity. Additionally, operations entered AOP-12 "Loss of Containment Integrity". The shift manager directed I&C technicians to reinstall the test swagelock plug F1 on containment penetration M-88. At that point, operations declared containment operable and exited the associated Technical Specification 2.6(1)a 1 hour LCO. Additionally, operations met exit conditions for AOP-12 and exited that procedure.

Operations shift supervision directed investigation of other outboard containment penetrations in rooms 81, 69, 59 and 13. This investigation revealed that all containment penetrations were found to be acceptable and no other missing test swagelock plugs were discovered. At that time operations reported no extent of condition existed. Condition Report 2014-07958 documents this issue. This event is reportable as a loss of containment integrity under 10 CFR 50.73(a)(2)(i)(B).

CONCLUSION

Maintenance supervision determined that the last time penetration M-88 and its associated test swagelock plug F1 was manipulated was during the most recent local leak rate test (LLRT) for this penetration.

Following valve maintenance during an extended shutdown, on 11-22-13 contract I&C personnel performed an "As-Left" containment penetration LLRT using procedure IC-ST-AE-3188, "Type C Local Leakage Rate Test of Penetration M-88." A clearance was hung by operations personnel in support of the LLRT to control penetration dampers PCV-742C, "Containment Purge Air Inlet Inboard Isolation Valve," and PCV-742D. The LLRT test was completed as required and met the leakage criteria. During restoration of the penetration, procedure IC-ST-AE-3188 step 7.4.3 requires I&C technicians to reinstall cap F1 onto fill point and tighten. This step has an independent verification required. Both technicians initialed that the cap was reinstalled and independently verified.

A cause analysis determined that:

FCS maintenance personnel exhibited weak Human Performance tool Independent Verification usage.

And

FCS personnel completed OI-CO-5, "Containment Integrity," checklists prior to all containment isolation boundary maintenance and/or LLRTs being completed.

CORRECTIVE ACTIONS

The Swagelock cap that was missing has been reinstalled and the system is now fully operable. Investigation into other containment penetrations in rooms 81, 69, 59, and room 13 found no extent of condition. Additional actions will be implemented by the stations corrective action system.

SAFETY SIGNIFICANCE

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At the time of this event, the unit was at various power levels, but RCS temperature remained > 210°F requiring containment integrity per Technical Specification 2.6.1(a) for 151 days while containment penetration M-88 fill plug cap F-1 was not installed.

During this time, PCV-742C and PCV-742D remained locked closed. No pathway ever existed from the containment atmosphere through the inboard isolation valve PCV-7 42C through the open penetration fill plug opening during this time period.

SAFETY SYSTEM FUNCTIONAL FAILURE

This does not represent a safety system functional failure in accordance with NEI 99-02, revision 7.

PREVIOUS EVENTS

No incidents of loss of containment integrity due to human error have been documented in the last three years.