



10 CFR 73.71

LIC-16-0027
April 8, 2016

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 2016-001, Revision 0, for the Fort Calhoun Station

Please find attached Licensee Event Report 2016-001, Revision 0. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v)(C). There are no new commitments being made in this letter.

If you should have any questions, please contact Brad Blome, Manager, Site Regulatory Assurance, at (402) 533-7270.

Sincerely,

Shane M. Marik
Site Vice President and CNO

SMM/cac

Attachment

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



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 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 05000 285	3. PAGE 1 OF 3
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4. TITLE
Technical Specification Violation due to Installation of an Unqualified Part in a Radiation Monitor

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
02	10	2016	2016	001	00	04	08	2016	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)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
10. POWER LEVEL 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)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<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)(C)	<input type="checkbox"/> 73.77(a)(1)
	<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)
	<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)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)
	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Corey Cameron	TELEPHONE NUMBER (Include Area Code) 402-533-73
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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
B	1L	2	Canberra	Y					

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 February 10, 2016 Fort Calhoun Station became aware of a part 10 CFR 21.21 notification from Canberra Industries, Inc. for purchase orders related to Radiation Monitoring (RM) equipment. An investigation identified Time Delay Relay (PO 185167) had been installed in RM-052 Containment and Auxiliary Building Stack Gaseous Swing Radiation Monitor since July 23, 2013. During the period since installation conditions existed such that the maximum number of Technical Specification required radiation monitors allowed out of service was exceeded for periods in excess of the Limiting Condition of Operation.

On 03/19/16 the Time Delay Relay was replaced with a qualified part (WO 578335) and all necessary surveillance testing completed satisfactorily restoring RM-052 to an operable condition.

NRC FORM 366A (11-2015)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0104	EXPIRES: 10/31/2018
 LICENSEE EVENT REPORT (LER) CONTINUATION SHEET		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 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	2. DOCKET NUMBER	3. LER NUMBER		
Fort Calhoun Station	05000- <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto; text-align: center;">285</div>	YEAR	SEQUENTIAL NUMBER	REV NO.
		2016	- 001	- 00

NARRATIVE**BACKGROUND**

Fort Calhoun Station (FCS) is a two-loop reactor coolant system (RCS) of Combustion Engineering design. RM-052, Containment and Auxiliary Building Stack Gaseous Swing Radiation Monitor, is part of the Process Radiation Monitoring System to provide surveillance of the plant effluent and critical process streams. The safety related function of the Process Radiation Monitoring Function is to provide a signal to initiate a Containment Radiation High Signal (CRHS) when radiation high alarm setpoint values are exceeded. During normal operation RM-052 is normally lined up to monitor the Vent Stack along with Auxiliary Building Vent Stack Monitor, RM-062. RM-052 also acts as a back up to the dedicated Containment Monitor RM-051. During abnormal or emergency operation of the Process Monitoring System RM-51, RM-052 or RM-062 will provide a signal to actuate a CRHS which activates a Ventilation Isolation Actuation Signal (VIAS) when any of the three monitors is in High Alarm.

EVENT DESCRIPTION

On February 10, 2016, FCS became aware of the Canberra 10 CFR 21.21 notification related to the three separate POs to OPPD that had commercial grade items that were not properly dedicated as basic components per the PO requirements. The three POs are 185091, 185157, and 191479. (NOTE: The letter calls out PO 185167 - which is incorrect, further research identified the correct PO to be 185157). An investigation was performed by FCS staff and on February 12, 2016 determined that Catalog ID 27019-1 (PO #185157) was installed in RM-052 under Work Order 399904. At that time the control room was notified and Condition Report 2016-01409 was initiated. RM-052 was declared inoperable and the additional components identified in the notification were quarantined.

At the time the Control room was notified, RM-051 remained operable and in service sampling containment. RM-062 also remained operable and in service sampling the Auxiliary Build ventilation stack satisfying TS 2.15. A review of past operability identified instances when RM-051 and RM-062 were out of service for periods longer than allowed by TS. Specifically,

- 2.15.1 (1) requires within 1 hour of RM-052 or RM-062 going inoperable containment purge and relief valves must be closed (bypass condition). After 48 hours the CRHS would need to be locked in.
- 2.15.1 (3) requires within 48 hours of RM-052 or RM-062 going inoperable the reactor must be placed in hot shutdown or ventilation isolation valves are closed.

This event is reportable per 10 CFR 50.73(a)(2)(i)(B) operation or condition prohibited by Technical Specifications and 10 CFR 50.73(a)(2)(v)(C) Event or Condition that could have prevented fulfillment of a safety condition to control the release of radioactive material.

CONCLUSION

Canberra failed to establish adequate measures for the selection and review for sustainability for purchase orders 185091, 185157, and 191479. The parts are critical to the safety-related functions of the components and Canberra failed to identify and verify the appropriate critical characteristics and failed to ensure that the components met/enveloped the applicable qualification reports as required by the POs. All three POs had seismically, environmentally or electromagnetic interference (EMI)/electromagnetic compatibility (EMC) qualified

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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		YEAR	SEQUENTIAL NUMBER	REV NO.
Fort Calhoun Station	05000-	285	2016	001
			-	00

related items that were not appropriately verified or evaluated. (Nonconformance 99901461/2015-201-01) This resulted in a Technical Specification violation due to installation of an unqualified part in radiation monitor RM-052.

CORRECTIVE ACTIONS

As previously stated the Time Delay Relay was replaced on 03/19/2016 with qualified part (WO 578335) and RM-052 was returned to service following successful surveillance testing. Other equipment identified in PO 185091, 185157 and 191479 was quarantined awaiting resolution through the Over, Short, Damaged and Discrepant (OSDD) process at FCS.

SAFETY SIGNIFICANCE

The safety related function of the Process Radiation Monitoring Function is to provide a signal to initiate a Containment Radiation High Signal (CRHS) when radiation high alarm setpoint values are exceeded. During normal operation RM-052 is lined up to monitor the Vent Stack along with Auxiliary Building Vent Stack Monitor RM-062. RM-052 can also act as a back up to the dedicated Containment Monitor RM-051. During abnormal or emergency operation of the Process Monitoring System RM-051, RM-052 or RM-062 will provide a signal to actuate a CRHS which activates a Ventilation Isolation Actuation Signal (VIAS) when any of the three monitors is in High Alarm. During the time when RM-052 contained an unqualified part, one of the three radiation monitors was available to respond to an unlikely event that would require VIAS.

SAFETY SYSTEM FUNCTIONAL FAILURE

This event does represent a safety system function failure in accordance with NEI 99-02.

PREVIOUS SIMILAR EVENTS

There were no previous LERs identified in the past three years for unqualified parts installed in a radiation monitor.