



Omaha Public Power District  
444 South 16th Street Mail  
Omaha, Nebraska 68102-2247

November 29, 1999  
LIC-99-0111

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Reference: Docket No. 50-285

**Subject: Licensee Event Report 1999-006 Revision 0 for the Fort Calhoun Station**

Please find attached Licensee Event Report 1999-006, Revision 0, dated November 29, 1999. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B). If you should have any questions, please contact me.

Sincerely,

S. K. Gambhir  
Division Manager  
Nuclear Operations

EPM/epm

Attachment

c: E. W. Merschoff, NRC Regional Administrator, Region IV  
L. R. Wharton, NRC Project Manager  
W. C. Walker, NRC Senior Resident Inspector  
INPO Records Center  
Winston and Strawn

IE22

**LICENSEE EVENT REPORT (LER)**

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

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If 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.

**FACILITY NAME (1)**

Fort Calhoun Nuclear Station Unit Number 1

**DOCKET NUMBER (2)**

05000285

**PAGE (3)**

1 OF 3

**TITLE (4)**

Missed Technical Specification Requirement for Low Power Core Physics Test

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	29	1999	1999	-- 006	-- 00	11	29	1999		05000
									FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

  

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)				
5	0	20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)	

**LICENSEE CONTACT FOR THIS LER (12)**

NAME	TELEPHONE NUMBER (Include Area Code)
Carl Stafford Reactor Engineer	402-533-6670

**COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

**SUPPLEMENTAL REPORT EXPECTED (14)**

<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).	<input type="checkbox"/> NO	<b>EXPECTED SUBMISSION DATE (15)</b>	MONTH	DAY	YEAR
			12	31	1999

**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

While reviewing results of the low power core physics testing conducted during the start of operating cycle 18 (June, 1998) in preparation for low power core physics testing following the present refueling outage (cycle 19, November 1999), it was determined that control rod drop testing was completed 8 days prior to the control element assembly (CEA) group worth test instead of within 7 days as required by the station's technical specifications. The rod drop test exercises each control rod and verifies that it will fall to the bottom of its range when the rod drive mechanism is deenergized.

The low power core physics test procedure was revised to reinsert the prerequisite to perform control rod drop testing within 7 days prior to the performance of the test following the 1999 refueling outage. A root cause analysis is in progress and resulting appropriate corrective actions will be developed to correct the causes of this event.

**LICENSEE EVENT REPORT (LER)**  
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Fort Calhoun Nuclear Station Unit Number 1	05000285	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		1999	-- 006	-- 00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**BACKGROUND**

The Fort Calhoun Station (FCS) Technical Specifications (TS) section 2.10.2(1), "Shutdown Margin With Tcold > 210F," states, "Whenever the reactor is in hot shutdown, hot standby or power operation conditions, the shutdown margin shall be greater than or equal to the value specified in the COLR. With the shutdown margin less than the value specified in the COLR, initiate and continue boration until the required shutdown margin is achieved." The COLR is the Core Operating Limits Report.

TS 2.10.2(9)b(i) states, "The shutdown margin required by 2.10.2(1) may be reduced during physics testing at power levels less than 10<sup>-1</sup> percent of rated power for measurement of CEA worth and shutdown margin provided that:

1. Reactivity equivalent to at least the highest estimated CEA worth is available from the operable CEA groups withdrawn (assuming the most reactive CEA of the groups withdrawn is stuck in the fully withdrawn position), and
2. The position of each trippable CEA required shall be determined at least once per 2 hours, and
3. Each CEA not fully inserted shall be demonstrated capable of full insertion when tripped from at least the 50% withdrawn position within 7 days prior to reducing the shutdown margin to less than the limits of specification 2.10.2(1)."

**EVENT DESCRIPTION**

In December 1993, a procedure change was made to core physics test procedure RE-CPT-RX-0001, "Post Refueling Core Physics Testing and Power Ascension." The change added a requirement to perform the rod drop test procedure OP-ST-CEA-0006, "Refueling Control Element Assembly (CEA) Group Indicating Lights and Rod Drop Test." This change was made as a result of TS amendment 148. Amendment 148 requires that each CEA not fully inserted shall be demonstrated capable of full insertion when tripped from at least the 50 percent withdrawn position within 7 days prior to reducing the shutdown margin to less than the limit of TS 2.10.2(1). This amendment applies to reactivity control systems and core physics parameter limits during low power core physics testing.

In June 1998, operations personnel asked the reactor engineer why there was a requirement in RE-CPT-RX-0001 to perform OP-ST-CEA-0006 within 7 days prior to the performance of RE-CPT-RX-0001. To answer this question the reactor engineer performed a review of the procedures. Since the purpose section (section 1.0) of a surveillance test procedure lists the TS satisfied by performing it, the reactor engineer focused the review on the requirements in this section of OP-ST-CEA-0006 and found no 7-day requirement to perform a rod drop test. Technical Specification 2.10.2, where the 7-day requirement resides, was listed in section 2.0 of RE-CPT-RX-0001 as a reference but was not included in the review by the reactor engineer. Since no 7-day requirement was found in section 1.0 of OP-ST-CEA-0006, a procedure correction was made in accordance with station procedures to remove the 7-day requirement to do the rod drop test listed in RE-CPT-RX-0001.

While reviewing the results of low power core physics testing conducted following the previous refueling outage (cycle 18, June 1998) in preparation for low power core physics testing following the present refueling outage (cycle 19, November 1999), it was determined that the rod drop test was completed 8 days prior to the CEA group worth test instead of within 7 days as required. This is a violation of technical specification 2.10.2(9)b(i)3. This event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**SAFETY SIGNIFICANCE**

The administrative control, via TS 2.10.2(9)b(i)3, to verify CEA full insertion capability within 7 days prior to reducing shutdown margin (SDM) was not met. However, SDM was verified every 2 hours, as required by TS 2.10.2(9)b(i)2, and no CEA became inoperable during the performance of RE-CPT-RX-0001, Attachment 4, "CEA Group Worth Measurement Using the Rod Group." Therefore, since the rod drop test was performed prior to reducing SDM and no work or plant condition affecting rod operability took place during the 8-day period between rod drop testing and the performance of RE-CPT-RX-0001, no significant safety issue existed. Therefore, it has been concluded that this event had minimal effect on plant/public safety.

**CONCLUSION**

A root cause investigation is in progress and will be completed to support the revision to this LER on December 31, 1999.

**CORRECTIVE ACTIONS**

Procedure RE-CPT-RX-0001 was revised to reinsert a prerequisite to perform OP-ST-CEA-0006 within 7 days of performing Attachment 4 prior to the performance of the test following the 1999 refueling outage. A root cause analysis is in progress and resulting appropriate corrective actions will be developed to correct the causes of this event. These corrective actions, while not commitments, will be implemented through the condition reporting system.

**SAFETY SYSTEM FUNCTIONAL FAILURE**

This event did not result in a safety system functional failure in accordance with draft NEI 99-02, Rev. D.

**PREVIOUS SIMILAR EVENTS**

No LERs document events similar to this.