

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0   5   0   0   0   4   8   3   1   OF   0   3	PAGE (3) 1 OF 03
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TITLE (4)  
Technical Specification Violation

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 NAMES		DOCKET NUMBER(S)											
0	2	15	8	5	8	5	8	5	0	0	9	0	0	0	0	0	0	0	5	0	0	0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)										
POWER LEVEL (10) 1   0   0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)							
	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)							
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)							
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)								
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)								
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME William R. Campbell - Superintendent, Engineering	TELEPHONE NUMBER AREA CODE: 3114   6766   -1846   619
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

On 2/15/85 at 1500 CST Train 'A' of the Control Room Emergency Ventilation System was declared inoperable due to the absence of a flow restricting orifice believed by HVAC Technicians to be required. Inspection of Train 'B' revealed the plate also not installed and Technical Specification (T/S) action 3.0.3 was conservatively entered at 1645 due to both trains being declared inoperable.

An orifice plate was fabricated and installed in Train 'A,' the train balanced to meet T/S limits and returned to service at 1830. Train 'B' was checked in its as found condition and found to be within the T/S limits.

Investigation showed that the orifice plate was originally installed in Train 'A' only during the preop flow balance when the fan speed for that train was increased due to vibration problems. The increased flow without the orifice, while higher than the T/S limits, was evaluated and found to maintain control room dose to less than General Design Criteria 19 limits.

This event posed no threat to the public health or safety.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (if more space is required, use additional NRC Form 366A's) (17)

During a review of Technical Specification (T/S) surveillances it was discovered by plant personnel that a surveillance had been signed off in May 1984 as acceptable using preoperational test data, but that the surveillance documentation was incomplete. T/S 4.7.6.c.3 requires two independent Control Room Emergency Ventilation Systems to be demonstrated operable at least one per 18 months by

"Verifying a system flow rate of 2000 cfm ± 10% for the Filtration System and 2000 cfm ± 10% for the Pressurization System with 500 cfm ± 10% going through the Pressurization system filter adsorber unit during system operation when tested in accordance with ANSI N510-1975."

Although acceptable documentation was present for the Filtration System and Pressurization System filter adsorber unit flows, the surveillance package did not contain the documentation of the Pressurization System total flow. A preliminary review of the preops referenced indicated that the acceptance criteria for the preops with respect to Pressurization System flow was greater than or equal to 2200 cfm.

On 2/15/85, while continuing to review preop data, Work Requests (WRs) were initiated to measure the actual Pressurization total and filter flowrates. While working the WR for Train 'A,' the HVAC Technicians brought to the attention of management that a flow restricting orifice which had been present during the preop flow balance was not present. 'A' Train Pressurization System was consequently declared inoperable. The Technicians, who had participated in the preop flow balance, also believed the orifice was required in Train 'B.'" Inspection of the 'B' train ductwork revealed no orifice plate installed. 'B' Train Pressurization was conservatively declared inoperable and T/S action 3.0.3 was entered at 1645 CST due to both trains being declared inoperable.

An orifice plate was fabricated and installed in Train 'A,' the train balanced to meet T/S limits and returned to service at 1830. Train 'B' was checked in its as found condition and found to have a total Pressurization System flow of 2036 cfm with a filter flow of 504 cfm at a filter delta-p of 3.25 inches Water Gauge (T/S allows up to 5.4 inch delta-p). Train 'B' was thus verified to be within T/S limits and declared operable.

Based on the Train 'B' results, the orifice plate was removed from Train 'A' and the train returned to its original configuration to reverify its as found flows. The Techs had measured a total flow of 2774 cfm with a filter flow of 624 cfm at a delta-p of 2.1 inches prior to installation of the orifice plate. The Techs verified that even at delta-p's up to 5.0 inches the flow was greater than the T/S limits. It was also noted

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

at this time that the Train 'A' fan was running at 4150 rpm while the 'B' fan was running at 3750 rpm. The 'A' fan was adjusted via the adjustable sheaves to 3750 rpm. At this speed the system flow was rebalanced and verified to be in compliance with T/S requirements.

A review of WRs, Startup WRs and Temporary Alterations failed to provide documentation of the original orifice plate ever being installed in or removed from Train 'A.' Discussion with the Startup Engineer most directly responsible for the preop flow balance indicates he recalls the orifice plate being installed in Train 'A' only. He stated that this was done per a Temporary Alteration when the fan speed was increased due to vibration problems. A vibration check was performed on 'A' fan after reducing its speed and vibration found to be within acceptable limits.

Discussions with the site AE (Bechtel) indicated that there appeared to be a discrepancy between the 2000 cfm T/S flow and the design flow. Bechtel stated that the design flow rate for the Pressurization System is 2200 cfm. A safety evaluation was also performed by Bechtel to confirm that no unreviewed safety question would result from operation of the system at total flow rates from 1800 to 3000 cfm. This evaluation addressed three situations: 1) a 3000 cfm total Pressurization System flow with 1000 cfm through the filter, 2) 3000 cfm total flow with 450 cfm filter flow, and 3) 1800 cfm total flow with 450 cfm filter flow. The evaluation showed that situation 1 would result in a slightly increased dose for operators, however, the control room dose would still be substantially less than the General Design Criteria 19 limits. For situations 2 and 3 the control room dose would be essentially unchanged from the FSAR values. The control building recirculation flow provided by the pressurization fan does not figure quantitatively in the dose calculation, but rather is established to ensure uniform mixing of the control building atmosphere. Adequate mixing would be provided over the range of recirculation flows between 1350 cfm and 2550 cfm.

In order to assure that this was an isolated case, other surveillances currently being satisfied by preop data were examined. No other discrepancies were found. In addition, all T/S ventilation system flowrates were reverified by performance of appropriate sections of permanent plant surveillance procedures.

Previous occurrences: none

UNION ELECTRIC COMPANY  
CALLAWAY PLANT

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March 15, 1985

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

ULNRC- 1058

Gentlemen:

DOCKET NUMBER 50-483  
CALLAWAY PLANT UNIT 1  
FACILITY OPERATING LICENSE NPF-30  
LICENSEE EVENT REPORT 85-009-00  
TECHNICAL SPECIFICATION VIOLATION

The enclosed Licensee Event Report is submitted pursuant  
to 10 CFR 50.73(a)(2)(i) concerning a violation of Technical  
Specifications.

*Andrew P. Neuhalfen*

*for*  
S. E. Miltenberger  
Manager, Callaway Plant

*WRC*  
GLR/WRC/WRR/DRM/drs  
Enclosure

cc: Distribution attached

*LE22*  
*1/1*

cc distribution for ULNRC-1058

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N. Date