

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Davis-Besse Unit 1	DOCKET NUMBER (2) 05000346	PAGE (3) 1 OF 03
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TITLE (4)
Inoperable Control Room Emergency Ventilation Systems

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	5	07	8	4	8	4	0	0	5	0	0	0
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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) 0914	20.402(b)			20.406(c)			50.73(a)(2)(iv)			73.71(b)		
	20.406(a)(1)(i)			50.36(e)(1)			50.73(a)(2)(v)			73.71(e)		
	20.406(a)(1)(ii)			50.36(e)(2)			50.73(a)(2)(vii)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	20.406(a)(1)(iii)			XX 50.73(a)(2)(i)			50.73(a)(2)(viii)(A)					
	20.406(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)					
20.406(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)						

LICENSEE CONTACT FOR THIS LER (12)

NAME Dave Eshelman	TELEPHONE NUMBER
	AREA CODE: 4119 21591-1501010

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
A	VII	IHS	C1780	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	XX NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

During a routine monthly surveillance test, it was found that both Control Room Emergency Ventilation Chiller Control Power Switches were in the "OFF" position. This rendered the cooling function for both Control Room Emergency Ventilation System trains inoperable. The cause is personnel error of undetermined origin. It was determined by interviews and walk-throughs with the operators who run the surveillance test and by checking dates of previous surveillance tests that the switch for Unit 2 was in its proper position on April 23, 1984, after preventative maintenance activities. Also during the investigation, it was determined that the administrative control of recent preventative maintenance work orders was inadequate in not properly addressing the effect of these switches on system operability. The switches and panels were also not labeled clearly.

As corrective action, labels were placed above the switches to more clearly identify them and to require that the Shift Supervisor is notified prior to turning off. The panels on which the switches are located were more clearly labeled also. The preventative maintenance work order was modified to identify that it made the system inoperable, and to require that the switches be verified to be in the "ON" position after the work is performed. The surveillance test was modified to further identify the switches and to note the effect of these switches on system operability.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Davis-Besse Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 6	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	- 0 0 5	- 0 1	0 2	OF 0 3

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

Description of Occurrence: On May 7, 1984, Davis-Besse Unit 1 was operating at approximately 94% power. At 0930 hours, during the performance of Control Room Emergency Ventilation System, EVS, (VI), Monthly Surveillance Test, ST 5076.01, the operators discovered that the control switches for both Control Room EVS chiller units on Panels C6706 and 6707 in the Air Conditioning Equipment Room were in the "OFF" position. This rendered the cooling function for both Control Room EVS trains inoperable, placing the station in Technical Specification Action Statements 3.0.3 and 3.7.6.1.

The operator immediately reported this condition to the Shift Supervisor who then conferred with a Maintenance staff member. When no apparent reason was found for the controllers being in the "OFF" position, the operator was instructed to place the switches to the "ON" position. At 0935 hours, these switches were returned to "ON", removing the station from the action statements. Surveillance Test ST 5076.01 was then successfully run on both Control Room EVS units.

This event is reportable under 50.73(a)(2)(i) for being in a condition prohibited by Technical Specifications, both Control Room EVS units being inoperable.

Designation of Apparent Cause of Occurrence: The reason for the chiller control switches being in the "OFF" position is personnel error of undetermined origin. It was verified by interviews and walk-throughs with the operators that performed the surveillance tests that the switch for Unit 2 was in its proper position after preventative maintenance activities. A thorough review of post maintenance on this system revealed that there was no work performed after this preventative maintenance which could explain the switch positioning. However, it was also noted that the administrative control of recent preventative maintenance work orders on this system was inadequate, along with the unclear labeling of the switches and panels. The Maintenance Work Order Enclosure 13 did not address the fact that the system was inoperable when the switches were turned off during the work.

Analysis of Occurrence: The normal Control Room Heating, Ventilation and Air Conditioning (HVAC) System was in service at the time of the occurrence. In the event of a chlorine accident or radioactive release, the Control Room HVAC would have functioned to automatically isolate the Control Room to protect Operations personnel. If a situation were to occur where the normal Control Room HVAC would be automatically shutdown, the Control Room Emergency Ventilation System may not have been able to provide cooling for the Control Room over a long period of time. This, of course, would be noticed by the operators, and adequate time would be available for corrective action. An evaluation of this event was performed by Engineering (File #M-410Q) which is based on a Bechtel analysis of the effect of a two hour station blackout on Control Room temperature. Using very conservative assumptions, it was found that there is approximately 20-30 minutes after the loss of power to take action in order to maintain Control Room temperature less than 110 degrees. The evaluation went on to cover the effects of high radiation or a chlorine release, and in both cases, ample time and means were available for corrective action. If, however, no corrective action was taken in a timely manner, the Control Room temperature could have risen to 110 degrees, requiring a unit shutdown.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Corrective Action: Under Maintenance Work Order 1-84-0195-01, a nameplate was put above each of the switches to more clearly identify them and to require that the Shift Supervisor be notified prior to turning the switches off. Under the same work order, labels were made for the panels on which the switches are located for easier recognition.

The Enclosure 13's of the preventative maintenance work orders (1188 and 1189) were modified to reflect that the work would make the Control Room EVS train inoperable and to ensure that the opposite train is verified to be operable prior to the start of work. The modification also requires that the switches are verified to be in the "ON" position at the completion of work.

Surveillance Test ST 5076.01 was modified to identify more clearly the switches in question and to note the effect of these switches on the system operability.

Personnel who perform preventative maintenance on this system were informed of the seriousness of this event.

A program has been established to provide additional review of maintenance work orders for their effect on equipment operability. This requires a Senior Reactor Operator qualified individual (presently or previously licensed) to thoroughly review all maintenance work orders to verify operability requirements and necessary testing requirements for the equipment being worked on.

Failure Data: There have been no previous reports of this nature.

Report No: NP-33-84-05

DVR No(s): 84-061



August 24, 1984

Log No. K84-1129
File: RR 2 (NP-33-84-05)
Rev. 1

Docket No. 50-346
License No. NPF-3

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

Gentlemen:

LER No. NP-33-84-05-Rev. 1
Davis-Besse Nuclear Power Station Unit 1
Date of Occurrence: May 7, 1984

Enclosed is Licensee Event Report NP-33-84-05-Rev. 1, which is being submitted in accordance with 10CFR50.73, to provide 30 day written notification of the subject occurrence.

Yours truly,

S.M. Quennoz / DWB

Stephen M. Quennoz
Acting Station Superintendent
Davis-Besse Nuclear Power Station

SMQ/ljk

Enclosure

cc: Mr. James G. Keppler,
Regional Administrator,
USNRC Region III

Mr. Walt Rogers
DB-1 NRC Resident Inspector

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11