

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Davis-Besse Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 6	PAGE (3) 1 OF 0 3
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TITLE (4)
Containment Air Cooler Fan Running Backward

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	1	0	4	8	6	8	6	0	0	0	7	0	0	2	0	1	8	6			0	5	0	0	0

OPERATING MODE (9) 5

POWER LEVEL (10) 0 1 0 1 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)
20.406(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 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	TELEPHONE NUMBER
Rich Ackerman	4 1 9 2 4 9 - 1 5 0 1 0 1 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

Containment Air Cooler fan 1-1 was discovered running backward during post-modification testing of the fan backdraft dampers. The fan was running backward in slow speed only which is the speed used during LOCA conditions. The cause of the occurrence appears to be a result of maintenance activity on the fan. Swapping two of the three motor leads will result in reversing the rotation of the fan. Based on original air balance data for the system the condition has not existed since start-up. The corrective action for the event was to swap two motor leads on the low speed stater for the fan. Proper rotation was then visually verified.

This finding is reportable per 10CFR50.73(a)(2)(i)(B) as operation prohibited by the plant's Technical Specifications.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 6	- 0 0 7	- 0 0	0 2	OF	0 3

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

Description of Occurrence: On January 4, 1986, at 1022 hours during the performance of the Containment Air Cooler Damper Test, TP 850.31, it was discovered that Containment Air Cooler (CAC) 1-1 fan would run backwards in the low speed mode of operation. The fan would run in the correct direction in the high speed mode of operation which is the mode used during normal plant operation. The CACs need to be operable in the low speed mode of operation to satisfy Technical Specification 3.6.2.2. Being in mode 5 (Cold Shutdown) at this time, there are not applicable action statement requirements. However, because we apparently operated in the past with this fan that would have run in reverse in low speed, the finding is reportable as a violation of Technical Specifications.

The NRC was notified at 1105 hours on January 4, 1986, via the ENS (red phone) per 10CFR50.72.

This written report is being submitted per 10CFR50.73(a)(2)(i)(B) as operation prohibited by the plant's Technical Specifications.

Designation of Apparent Cause of Occurrence: A review of the original air balance testing for the CACs shows that design flows were met which would not have been possible unless the fans were running in the correct direction at that time. Therefore, apparently during some maintenance operation in subsequent years, the low speed motor leads were switched. A review of the Maintenance Work Orders (MWO) generated over the years found several activities that would have required leads to have been disconnected. The normal maintenance followup would be to verify proper rotation. But unless rotation in both the low speed and the high speed mode of operation were verified, an error could go undetected.

Although the surveillance tests that have existed since original startup satisfied Technical Specification Surveillance Requirements, they did not contain the details to verify flow which would have indicated proper rotation of the fan.

Analysis of Occurrence: Post LOCA (Loss of Coolant Accident) Containment atmosphere can be cooled by two of three 50 percent capacity CACs and two 50 percent capacity Containment Spray Pumps (CSP). Any combination of two of three of these units will provide adequate containment cooling following a design basis accident.

With CAC 1-1 fan running backwards, the cooling unit would not provide its intended 50 percent capacity cooling. Although there is a violation of Technical Specification 3.6.2.2, there would still have been adequate cooling available from the remaining CAC and the two CSPs.

Corrective Action: Under Maintenance Work Order (MWO) 1-86-0100-00, the motor leads on the low speed starter for the fan were swapped. Proper rotation was verified by visual observation. Work was completed January 11, 1986.

The System Review and Test Program, established after the June 9, 1985 event, is performing detailed reviews of selected systems to ensure routine surveillance tests verify operability.

A surveillance test will be modified to check for adequate design flow. This will be used for post maintenance testing and with other 18 month testing.

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

Failure Data: This is the first report of a Containment Air Cooler fan running backwards.

REPORT NO: NP-33-86-02

DVR NO(s): 86-003



January 31, 1986

Log No. KA86-55
File: RR 2 (NP-33-86-02)

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

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

Gentlemen:

LER No. 86-007
Davis-Besse Nuclear Power Station Unit 1
Date of Occurrence: January 4, 1986

Enclosed is Licensee Event Report 86-007 which is being submitted in accordance with 10CFR50.73, to provide 30 day written notification of the subject occurrence.

Yours truly,

Louis F. Storz / lfs

Louis F. Storz
Plant Manager
Davis-Besse Nuclear Power Station

LFS/syc

Enclosure

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

Mr. Walt Rogers
DB-1 NRC Resident Inspector

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