



A Centenor Energy Company

EDISON PLAZA
300 MADISON AVENUE
TOLEDO, OHIO 43652-0001

NP-33-95-003

AB-95-0037

Docket No. 50-346

License No. NPF-3

December 18, 1995

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Gentlemen:

LER 95-003

Davis-Besse Nuclear Power Station, Unit No. 1
Date of Occurrence - November 17, 1995

Enclosed please find Licensee Event Report 95-003, which is being submitted to provide 30 days written notification of the subject occurrence. This LER is being submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v)(D).

Very truly yours,

John K. Wood
Plant Manager
Davis-Besse Nuclear Power Station

JKW/eld

Enclosure

cc: Mr. H. J. Miller
Regional Administrator
USNRC Region III

Mr. Stan Stasek
DB-1 NRC Sr. Resident Inspector

Utility Radiological Safety Board

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LICENSEE EVENT REPORT (LER)

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD
COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION
AND RECORDS MANAGEMENT BRANCH (MN6B 7714), 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.

FACILITY NAME (1)

Davis-Besse Unit Number 1

DOCKET NUMBER (2)

05000 - 346

PAGE (3)

1 OF 04

TITLE (4)

Inoperable Spent Fuel Pool Emergency Ventilation System

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	06	95	95	003	00	12	18	95		05000
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
1			20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL (10)			20.405(a)(1)(i)		50.36(c)(1)		X 50.73(a)(2)(v)		73.71(c)	
100			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER	
			20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)	
			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)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME

Andrew V. Antrassian, Engineer - Licensing

TELEPHONE NUMBER (Include Area Code)

(419) 321-7908

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)

YES

(If yes, complete EXPECTED SUBMISSION DATE)

X

NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

On October 6, 1995, Access Control Booster Fan 1-1, C48, and its associated motor and housing, were removed from the Auxiliary Building Radwaste Ventilation System (ABRVS) to replace the fan's faulted motor. On November 17, 1995, it was determined that removal of fan C48 had inadvertently rendered both trains of the Spent Fuel Pool (SFP) Emergency Ventilation System (EVS) inoperable by creating a breach in the SFP negative pressure boundary. The plant was operating at approximately 100 percent power during this period. Contrary to the requirements of Technical Specification 3.9.12 spent fuel assemblies were moved in the SFP with the SFP EVS inoperable. This condition was reported to the Nuclear Regulatory Commission on November 17, 1995, in accordance with 10CFR50.72(b)(2)(iii)(D). The SFP EVS was returned to operable status on November 18, 1995.

This event resulted from insufficient review of the work activity, an atypical fan/motor configuration, and a subtle interrelationship between the ABRVS and the SFP EVS. Corrective actions include installation of a placard on the housing of fan C48, revision of procedure DB-DP-00007, Control of Work, and licensed operator training. This condition is being reported in accordance with 10CFR50.73(a)(2)(v)(D) and 10CFR50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (4)			PAGE (3)
Davis-Besse Unit Number 1		05000 -346		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	02 OF 04
				95	- 003 -	00	

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

Description of Occurrence:

On September 30, 1995, Potential Condition Adverse to Quality Report (PCAQR) 95-0836 was initiated to document that Access Control Booster Fan 1-1, C48, was running hot and causing a burning smell in chemistry areas of the Auxiliary Building. It was suspected that the motor for fan C48 was faulted and on October 6, 1995, fan C48, and its associated motor and housing, were removed from the Auxiliary Building Radwaste Ventilation System for corrective maintenance on the motor under Work Request Order (WRO) 95-1892.

On November 17, 1995, it was determined that removal of fan C48, and its associated motor and housing, had inadvertently rendered both trains of the Spent Fuel Pool (SFP) Emergency Ventilation System (EVS) inoperable by creating a breach in the SFP negative pressure boundary. During this period, the plant was operating in Mode 1 at approximately 100 percent power. With both trains of SFP EVS inoperable, Technical Specification (TS) 3.9.12 in part requires that all operations involving movement of fuel in the SFP be suspended. Contrary to this TS requirement, between October 6 and November 10, 1995, spent fuel assemblies were moved in the SFP with the SFP EVS inoperable.

On November 17, 1995, at 1122 hours, TS 3.9.12 was entered upon discovery of the SFP EVS inoperability. At 1444 hours this condition was reported to the Nuclear Regulatory Commission in accordance with 10CFR50.72(b)(2)(iii)(D), as a condition that alone could have prevented the fulfillment of the safety function of the SFP EVS to mitigate the consequences of a fuel handling accident. On November 18, 1995, the housing of fan C48 was reinstalled; DB-SS-03708, Spent Fuel Pool Ventilation System 18 Month Test, was satisfactorily performed; and TS 3.9.12 was exited at 0246 hours.

This condition is being reported in accordance with 10CFR50.73(a)(2)(v)(D) as a condition that alone could have prevented the mitigation of an accident, and 10CFR50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

Apparent Cause of Occurrence:

Fan C48 was removed for corrective maintenance to replace its faulted motor under WRO 95-1892. The criteria under which maintenance may be performed using the WRO process are identified in DB-DP-00007, Control of Work. Section 6.3.1 of DB-DP-00007 identifies that work performed under a WRO will

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Apparent Cause of Occurrence (Continued):

not affect the operability of TS related equipment. The Senior Reactor Operator (SRO) that permitted the work on fan C48 to be performed under the WRO process did not properly recognize the interrelationship between the Auxiliary Building Radwaste Ventilation System and the SFP EVS.

In addition, the Shift Manager that permitted commencement of work on WRO 95-1892 believed that the faulted fan motor was located external to the Auxiliary Building Radwaste Ventilation System duct work, which is the more typical configuration for these components. The location of fan C48 is such that it is not readily visible during operator rounds or tours of the Auxiliary Building. Fan C48 is actually an axial blower with the motor mounted internal to the duct work. Consequently, removal of the fan, motor and housing from the duct work was necessary to perform maintenance on the faulted fan motor. This resulted in the breach of the SFP negative pressure boundary.

Analysis of Occurrence:

Between October 6 and November 10, 1995, spent fuel assemblies were moved in the SFP with the SFP EVS inoperable. During this period, all of the spent fuel assemblies in the SFP had been discharged from the reactor for more than twelve months. As a result, the short lived radioiodines, which the SFP EVS is designed to remove, had decayed leaving primarily noble gas fission products which could have potentially been released in a postulated fuel handling accident. Noble gases are not removed by the SFP EVS. Therefore, had a fuel handling accident occurred, it would have been bounded by the Updated Safety Analysis Report (USAR) Chapter 15 accident analysis and would have been well within 10CFR100 guidelines.

Corrective Actions:

On November 17, 1995, PCAQR 95-0973 was initiated to document the inoperability of the SFP EVS and TS 3.9.12 was entered to preclude further spent fuel movements in the SFP.

On November 18, 1995, the housing of fan C48 was reinstalled into the Auxiliary Building Radwaste Ventilation System and surveillance test DB-SS-03708 was satisfactorily performed which returned the SFP EVS to operable status. In addition, permission to work WRO 95-1892 was withdrawn and MWO 7-95-0973-01 was initiated to complete the remaining work on fan C48.

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

Corrective Actions (Continued):

On December 14, 1995, a placard was attached to the housing of fan C48 which directs individuals to inform the Shift Supervisor that opening of this duct work requires entry into TS 3.9.12.

This event resulted from insufficient review of the specific maintenance activity, an atypical fan/motor configuration of fan C48, and a subtle interrelationship between the non-safety related Auxiliary Building Radwaste Ventilation System and the SFP EVS. Recognizing the potential for ventilation systems to affect safety related equipment and boundaries, corrective actions are being directed toward increasing awareness of the potential for these types of subtle system interrelationships.

DB-DP-00007 will be revised to require the exercise of additional caution for maintenance activities performed on systems which may involve subtle interrelationships affecting the operability of other systems or components (e.g., ventilation, penetrations). The revision to DB-DP-00007 will be completed by January 31, 1996.

This event will be discussed in the next cycle of licensed operator requalification training. This training will be completed by March 29, 1996.

Failure Data:

Previous occurrences of the TS 3.9.12 violations have been documented in LER 94-003 and LER 90-004. Both events occurred with the plant in Mode 6 for refueling operations with the Containment Equipment Hatch removed, and with Containment Purge Supply and Exhaust Fans running. Licensee Event Report 94-003 involved movement of spent fuel with an open door leading from the SFP area to the outside atmosphere. Licensee Event Report 90-004 involved movement of spent fuel with the SFP EVS improperly aligned. The corrective actions taken in response to these events would not have been expected to have prevented this event.

No LERs in the previous three years have involved conditions that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident.

NP-33-95-003PCAQR: 95-0973