



A Centenor Energy Company

EDISON PLAZA
300 MADISON AVENUE
TOLEDO, OHIO 43652-0001

NP-33-96-009

AB-96-0134

Docket No. 50-346

License No. NPF-3

December 13, 1996

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

Ladies and Gentlemen:

LER 96-009

Davis-Besse Nuclear Power Station, Unit No. 1

Date of Occurrence - November 13, 1996

Enclosed please find Licensee Event Report 96-009, which is being submitted to provide 30 days written notification of the subject occurrence. This LER is being submitted in accordance with 10CFR50.73(a)(2)(i)(B).

Very truly yours,

James H. Lash
Plant Manager
Davis-Besse Nuclear Power Station

GMW/dlc

Enclosure

cc: Mr. A. B. Beach
Regional Administrator
USNRC Region III

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

Utility Radiological Safety Board

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PDR ADOCK 05000346
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LICENSEE EVENT REPORT (LER)

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

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 (MNBB 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 4

TITLE (4)

Failure to Apply Generic Letter 91-18 Guidance to Emergency Diesel Generator Surveillance Testing

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
11	13	96	96	-- 009 --	00	12	13	96	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		1(X)	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	
			20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in text.	
			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)		NRC Form 366A)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Dale L. Miller, Senior Engineer - Licensing TELEPHONE NUMBER (Include Area Code) (419) 321-7264

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)

X YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
			02	28	97

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

On November 13, 1996, a Potential Condition Adverse to Quality Report documented a concern that Generic Letter (GL) 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability," guidance had not been appropriately applied to the Emergency Diesel Generators (EDG) during the time the EDG is synchronized to the grid for surveillance testing (ST). The EDG response to an emergency signal for a Safety Features Actuation System Level 2 actuation and/or a Loss of Offsite Power causes the EDG governor and excitation system to be placed in a potential overload condition when parallel to the grid. Administrative and procedural controls exist during testing to mitigate damage to the EDG should this event occur. The low probability of occurrence of this event, coupled with existing procedure controls, lead to the conclusion that not declaring the EDG inoperable is of no safety significance. Guidance has been established and procedures are being revised to declare the EDG inoperable during the time an EDG is paralleled to the grid for testing and to implement the appropriate Technical Specification (TS) actions. Failure to declare an EDG inoperable and perform the required TS actions, consistent with GL 91-18 guidance, during performance of the ST, is now evaluated as a condition prohibited by the TS and is reportable in accordance with 10CFR50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (4)
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Davis-Besse Unit Number 1	05000-346	96	--009--	00	2 OF 4

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

Description of Occurrence:

On November 13, 1996, with the plant in Mode 1 and 100 percent power, a Potential Condition Adverse to Quality Report (PCAQR) 96-1451 documented a concern with regard to the operability of an Emergency Diesel Generator, EDG, (EK-DG) during the time that the EDG is synchronized to the electrical grid during performance of the monthly surveillance test (ST). The concern centers around evaluation of EDG operability while an EDG is in operation parallel to the electrical distribution grid. The EDG response to an emergency signal for a Safety Features Actuation System, SFAS, (JE) Level 2 actuation and/or a Loss of Offsite Power (LOOP) causes the EDG governor and excitation system to be placed in a potential overload condition when parallel to the grid. The EDG response to an emergency signal is to automatically switch the EDG governor and voltage control from the droop mode to the isochronous mode of operation. This automatic response causes the EDG to increase load while synchronized to the grid, until the 4.16 KV non-essential to essential source breaker (AC 110 or AD 110) for the respective EDG is opened, thereby separating the EDG from the grid.

When an EDG is in operation parallel to the grid, the EDG operator has proceduralized instructions to immediately open the non-essential to essential source breaker in the event of an emergency signal or an observed overload condition. The Control Room operator likewise is instructed to perform this action. Since implementation in 1991, these actions have been evaluated as reasonable to mitigate damage to an EDG for the short time period the EDG is placed in a potential overload condition.

Nuclear Regulatory Commission (NRC) Generic Letter (GL) 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability," Section 6.4, states that safety equipment removed from service and rendered incapable of performing its safety function during performance of a ST is inoperable. When an EDG is in operation parallel to the grid during performance of the ST, the EDG is not automatically capable of performing its safety function in the event of an emergency signal. Additionally, the Updated Safety Analysis Report (USAR) Section 8.3.1.2.7, "Testing", implies that an EDG is inoperable when paralleled to the grid for testing. This practice was not applied to declare the EDG inoperable and perform the required TS actions during the time the EDG was parallel to the grid for performance of testing.

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

Description of Occurrence: (Continued)

Therefore, since the guidance of GL 91-18, Section 6.4, was not applied at the DBNPS during past performance of testing, the EDG was not declared inoperable and the appropriate TS actions were not performed. This condition is now evaluated as a condition prohibited by the plant's Technical Specifications and is reportable in accordance with 10CFR50.73(a)(2)(i)(B).

Apparent Cause of Occurrence:

During past reviews of the EDG response to an emergency signal, the GL 91-18 guidance was not specifically evaluated for the potential overload condition of the EDG while in operation parallel to the grid. Procedural controls which have existed since 1991 and are implemented during performance of testing, provide reasonable assurances that EDG damage will be mitigated if an emergency signal is initiated for the EDG while parallel to the grid. However, the implication of the USAR with regard to operability of the EDG and the lack of design or licensing basis documentation to support a conclusion of operability during performance of the testing was not previously recognized by station personnel. Therefore, the guidance of GL 91-18 was not appropriately applied to performance of EDG surveillance testing and appropriate administrative controls to declare the EDG inoperable were not implemented.

Analysis of Occurrence:

No overload condition of an EDG while parallel to the grid during performance of EDG testing, concurrent with an emergency signal for a SFAS actuation and/or LOOP, has ever occurred at the DBNPS. The probability of an emergency signal occurring during monthly testing of the EDG while parallel to the grid was evaluated as being relatively low during performance of an electrical distribution system functional inspection (EDSFI) in 1992 by DBNPS personnel. Since the EDG local operator and the Control Room operator both have specific actions to perform in the event of an emergency signal or observed overload condition during testing, the small amount of time it takes one of these two operators to isolate the safety bus was evaluated during the EDSFI as sufficient to mitigate engine damage. Even if the engine is damaged by this scenario, the redundant EDG is available in Modes 1 (Power Operation) through 4 (Hot Shutdown). Therefore, failure to administratively declare the EDG inoperable had no safety significance to the operation of the DBNPS.

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

Corrective Actions:

Upon discovery of this condition, immediate guidance was provided to the Operations Section to declare the EDG inoperable during the time period the EDG output breaker is closed during testing. The instruction also directed that the appropriate TS action statements be implemented as a result of declaring the EDG inoperable.

The EDG monthly surveillance test procedures are being revised to declare the EDG inoperable during the time period the EDG output breaker is closed during the ST. These procedure revisions will be completed by January 10, 1997.

To reinforce GL 91-18 guidance relative to operability considerations, a review of GL 91-18 will be provided to Plant Operations and Plant Engineering personnel by January 24, 1997.

As of the date of issuance of this LER, the extent of condition review required by the Potential Condition Adverse to Quality Reporting procedure for PCAQR 96-1451 is not complete. Upon completion of review for extent of condition, a supplemental report will be issued which will address this review, any additional conditions identified and substantial changes in corrective action.

Failure Data:

There have been no LERs in the previous three years involving failure to apply the guidance of GL 91-18 during TS required surveillance testing which resulted in a violation of TS. There have been no LERs in the previous three years for the EDGs.

NP-33-96-009-0

PCAQR 96-1451