



A Centenor Energy Company

EDISON PLAZA  
300 MADISON AVENUE  
TOLEDO, OHIO 43652-0001

AB-93-0009  
NP-33-93-01

Docket No. 50-346

License No. NPF-3

March 19, 1993

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

Gentlemen:

LER 93-001  
Davis-Besse Nuclear Power Station, Unit No. 1  
Date of Occurrence - February 17, 1993

Enclosed please find Licensee Event Report 93-001, 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).

Very truly yours,

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

LFS/dlc

Enclosure

cc: Mr. A. Bert Davis  
Regional Administrator  
USNRC Region III

Mr. Stan Stasek  
DB-1 NRC Senior Resident Inspector

9303 120375 930319  
PDR ADOCK 05000346  
S PDR

JE22

## 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 (MNRB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (0150-0104), 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)

Unlocked High Radiation Area Door

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
02	17	93	93	001	00	03	19	93		05000
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		73	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, 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)(ix)			

## LICENSEE CONTACT FOR THIS LER (12)

NAME: Mark A. Turkal, Engineer - Nuclear Licensing  
TELEPHONE NUMBER (include Area Code): (419) 321-7377

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDPS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDPS

## 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 February 19, 1993 at approximately 1600 hours, it was discovered that the door to the emergency airlock vestibule (door 360) was not locked. Since the emergency airlock itself is not maintained locked, door 360 provides the locked barrier to the high radiation area inside containment. As such, this event violated Technical Specification (TS) 6.12.2 which requires high radiation areas to be provided with a locked door to prevent unauthorized entry. It was subsequently determined that door 360 had been unlocked since approximately 1922 hours on February 17, 1993, with the plant in Mode 1 at approximately 73 percent power, when work associated with performance of TS Surveillance Requirement 4.6.1.3 was completed. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i) as a condition prohibited by the TSs.

Door 360 was locked February 19, 1993 at approximately 1600, restoring compliance with TS 6.12.2. The lock on door 360 is unique. Security and radiation protection personnel have been trained on the proper operation of the lock. A sign which describes the proper method for locking door 360 will be installed near the door.

REQUIRED NUMBER OF DIGITS/CHARACTERS  
FOR EACH BLOCK

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 76 -- FACILITY NAME 8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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 (MNRB 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)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)
Davis-Besse Unit Number 1		05000-346		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
				93	001	00	

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

Description of Occurrence:

On February 17, 1993, at 1053 hours, with the plant in Mode 1 at approximately 73 percent power, plant personnel unlocked the door to the emergency air lock vestibule (door 360) in order to perform the required six month testing of the Containment Emergency Air Lock (CEAL) per Surveillance Requirements 4.6.1.3.b and 4.6.1.3.c. Since the CEAL itself is not maintained locked, door 360 fulfills the requirement for a locked barrier to the high radiation areas inside containment as specified by Technical Specification (TS) 6.12.2. The activities associated with Surveillance Requirements 4.6.1.3.b and 4.6.1.3.c and the subsequent seal test performed in accordance with Surveillance Requirement 4.6.1.3.a were completed at approximately 1922 hours on February 17, 1993.

At approximately 1500, a shift change occurred and the original radiation protection (RP) technician and security officer who were assigned to the job and had unlocked door 360 were relieved. Following completion of the surveillance activities on the CEAL, door 360 was closed by the RP technician at approximately 1922 hours. However, the RP technician did not lock the door by keying the deadbolt lock mechanism. It was assumed that the door would lock automatically when shut. The RP technician who closed door 360, a second RP technician at the scene, and the security officer assigned to the job each attempted to verify that the door was shut and locked by pushing and pulling the door. Based on their actions, the individuals involved believed that door 360 was properly closed and locked.

On February 19, 1993, a security officer noted that, although door 360 was closed, he was not able to see the small section of the deadbolt lock which is normally visible when the door is properly locked. Since the security officer was unsure of the status of the door, he requested another officer and his supervisor to check the status of door 360. Although door 360 did not open when checked by the security personnel, an RP supervisor was requested to check the lock.

The RP supervisor was unable to open door 360 using the normal amount of force typically used to open the door. The RP supervisor then attempted to verify that door 360 was locked by keying the deadbolt lock and at that point determined that the deadbolt was disengaged. When the RP supervisor determined that door 360 was not locked, he again attempted to open the door. By bracing his foot on the door frame and pulling with substantial force, he was able to open door 360. The door was properly secured at approximately 1600 on February 19, 1993.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i) as a condition prohibited by the TSs.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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 (MNRB 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)		DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Davis-Besse Unit Number 1		05000-346	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
			93	001	00	

TEXT (If more space is required, use additional copies of NRC Form 365A) (17)

Apparent Cause of Occurrence:

The apparent cause of this event is insufficient training. The RP and security personnel involved in this incident were trained on the general lock types and proper self-checking techniques used to verify locking of other high radiation areas in the plant. The lock used on door 360 is unique in this application at Davis-Besse. It is the only lock for a high radiation area door that requires manual keying to engage the deadbolt, other high radiation area locks engage automatically when the door is closed.

In addition, there were other contributing factors which lead to this event. Operation of door 360 was more difficult than normal. This has been attributed to the extremely cold weather conditions during this time. The self-checking technique used by the individuals involved in this incident would have identified the unlocked condition had the door been operating freely. Also, the change of shift resulted in a different set of individuals responsible for closing and locking door 360 than had opened the door when the surveillance testing began. Had the same individuals been on hand to lock the door it is likely that door 360 would have been properly locked.

Analysis of Occurrence:

The event reported in this LER has no safety significance. Although door 360 was not properly locked from approximately 1922 hours on February 17, 1993 until approximately 1600 hours on February 19, 1993, no unauthorized access occurred. This was verified by security personnel who determined that the door access alarm in the Central Alarm Station for door 360 was operating the entire time. Security also reviewed alarm histories and found no record of any alarms during this period.

Additionally, the fact that door 360 was extremely difficult to operate would have prevented any inadvertent entry into the vestibule area. It was necessary for the RP supervisor to use an inordinate amount of force to ultimately open the door. Subsequent to closing door 360 on February 17, 1993, the periodic security tour verified the door to be shut approximately eighty times by attempting to push and pull the door open. This demonstrates that it remained difficult to operate throughout the time when door 360 was unlocked. The CEAL outer door will also trigger an alarm in the control room if opened.

Had an entry occurred, dose rates in the vestibule area outside of the CEAL were approximately 10 millirem/hour. The actual high radiation areas protected by door 360 are inside containment. It is estimated that security response to an alarm on door 360 would be within a maximum of five minutes.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)
Davis-Besse Unit Number 1		05000-346		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
				93	001	00	

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

Corrective Actions:

Door 360 was locked, restoring compliance with TS 6.12.2 at approximately 1600 hours on February 19, 1993.

Security and RP personnel have been trained regarding the specific operation of the lock on door 360 and they have been instructed to use a visual inspection to verify the deadbolt is engaged rather than a physical attempt to open the door.

A sign will be installed near the lock for door 360 which states that it is necessary to use the key to secure the door lock. This sign will be installed by April 15, 1993.

Failure Data:

There have been no LERs in the previous two years that were the result of unlocked high radiation areas.

NP 33-93-01PCAQR 93-0058