

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																					
TITLE (4) Fuel transfer tube drain valves left open and uncapped																																									
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			1			9 8			4			8 4			0 0			2			0			0 0			2 1			7 8			4			0 5 0 0 0					
OPERATING MODE (9) 5						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																																			
POWER LEVEL (10) 0 0 0						20.402(b)						20.406(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)						X 50.73(a)(2)(vi)						X OTHER (Specify in Abstract below and in Text, NRC Form 365A)																	
						20.405(a)(1)(iii)						50.73(a)(2)(i)						50.73(a)(2)(vii)(A)																							
						20.405(a)(1)(iv)						50.73(a)(2)(ii)						50.73(a)(2)(vii)(B)																							
20.405(a)(1)(v)						50.73(a)(2)(iii)						50.75(a)(2)(x)																													
LICENSEE CONTACT FOR THIS LER (12)																																									
NAME Donald E. Missig																								TELEPHONE NUMBER AREA CODE 4 1 9 2 5 9 - 5 0 0 0																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																									
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC				CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC																					
D				L O V		V 0 8 5		No																																	
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 fifteen single space typewritten lines) (16)																																									
<p>The plant was in Mode 5, Cold Shutdown, for containment work and secondary side work when it was observed that Fuel Transfer Tube 1-1 Drain SF69 was open and uncapped, and Fuel Transfer Tube 1-2 Drain SF68 was partially open and uncapped. Fuel Transfer Tube 1-2 Isolation Valve SF1 and Fuel Transfer Tube 1-1 Isolation Valve SF2 leaked by allowing borated water to leak from the Fuel Transfer Pit in the Auxiliary Building to the deep end of the Refueling Canal in Containment.</p> <p>SF1 and SF2 and the blind flanges were in their correct position but the boundary between them was breached by SF68 and SF69 being open and uncapped, thereby, potentially violating Containment integrity. Containment leakage was not violated based on a Containment Vessel Local Leak Rate Test of SF1 and SF2. SF68 and SF69 were uncapped and open in the 1983 Refueling Outage.</p> <p>Two defective procedures were the apparent cause of this LER. MP 1503.04, Fuel Transfer Tube Cover Plate Removal and Replacement, and AD 1839.03, Operation and Control of Capped Valves. Corrective action was to reevaluate all capped valves and require a facility change request to delete any capped valves from AD 1839.03. A modification to MP 1503.04 that adds steps to close and cap SF68, SF69, SF70, and SF71 was written.</p>																																									
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Davis-Besse Unit 1	0500034684	—	002	—	00	02	OF 03

TEXT (If more space is required, use additional NRC Form 385A's) (17)

Description of Occurrence: The plant was in Mode 5, Cold Shutdown, for replacement of a containment recirculating fan and other secondary side problems. The Fuel Transfer System and associated equipment were not to be used because this was not a refueling outage.

A Chemistry and Health Physics Technician made a routine containment entry on January 18, 1984, and observed borated water around the fuel transfer tubes. Further investigation at 1015 hours on January 19, 1984, revealed that Fuel Transfer Tube 1-2 Drain SF68 was open and uncapped. Fuel Transfer Tube 1-1 Drain SF69 was also partially open and uncapped. Fuel Transfer Tube 1-2 Isolation SF1 leaks by, as well as Fuel Transfer Tube 1-1 Isolation SF2, allowing borated water to leak from the Fuel Transfer Pit in the Auxiliary Building to the deep end of the Refueling Canal in Containment.

10CFR50.73(a)(2)(v) requires reporting of any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to control the release of radioactive materials. This event must be reported regardless of whether or not the alternate safety system could have been used to perform the safety function.

Primary Containment Integrity Technical Specification 3.6.1.1, which requires that containment isolation valves be closed during Modes 1 through 4, was violated. SF1 and SF2 are required to be closed, and the blind flanges on each fuel transfer tube in place for double isolation as required by containment integrity. These valves and flanges were in fact in their correct position, but this boundary was potentially breached due to SF68 and SF69 being opened and uncapped, thereby having only a single isolation valve, SF1 and SF2, to rely upon in accident conditions. The action statement of Technical Specification 3.6.1.1 was not applicable due to the fact that the unit was in Mode 5.

Containment leakage Technical Specification 3.6.1.2.b limits combined leakage from type b and c tests to less than 0.6 La, approximately 600,000 standard cubic centimeters of air per minute (SCCM), and Technical Specification 3.6.1.2.c limits combined emergency ventilation "bypass leakage" to less than 0.015 La, approximately 15,000 SCCM.

The containment leakage specification was not violated. A special local leak rate test was performed on January 20, 1984, which determined the leakage of these penetrations was 13,606 SCCM. Technical Specification 3.6.1.2.b was met based on the total containment leakage of 13,606 SCCM, which is less than the 600,000 SCCM, and "bypass leakage" of 8,621 SCCM, which is less than the 15,000 SCCM allowed. These leak rates are based on the maximum accumulated total since the 1983 Refueling Outage.

SF68 and SF69 were opened and uncapped in the 1983 Refueling Outage by the Fuel Transfer Tube Cover Plate Removal and Replacement Maintenance Procedure, MP 1503.04.

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

Designation of Apparent Cause of Occurrence: It was determined that SF68, SF69, SF70, SF71, SF72, and SF73 were incorrectly deleted by a modification to AD 1839.03 since it was believed these valves were inaccessible.

MP 1503.04 originally had Maintenance personnel uncapping, opening, closing, and capping SF68, SF69, SF70, SF71, SF72, and SF73. It was determined that SF68, SF69, SF70, and SF71 were incorrectly deleted by Major Modification Request M-1252 to MP 1503.04 since it was believed the lineup was verified in the local leak rate test.

Analysis of Occurrence: SF1 and SF2 are containment isolation valves/blind flanges. Two containment isolation valves are always provided in series. The backup (or second) isolation valves for SF68 and SF69 are SF2 and SF1. SF1 and SF2 had a leak rate of 911 SCCM and 1470 SCCM, respectively, which does not violate the leakage requirement of Technical Specification 3.6.1.2.b or c. Also, any leakage through the spent fuel tubes would have to pass through approximately 27 feet of water before being released.

Corrective Action: Facility Change Request 79-179 established AD 1839.03. The facility change request and the administrative procedure were reevaluated again on January 20, 1984 by Operations personnel, and Modification Request T-7711 was written to add SF68, SF69, SF70, SF71, SF72, and SF73. Temporary Modification Request T-7732 was written stating henceforth any deletions to AD 1839.03 will require a facility change request. Modification T-7733 was written to MP 1503.04 which adds a step that closes and caps SF68, SF69, SF70, and SF71. A modification will be prepared to the Local Leak Rate Test ST 5061.02 for further verification that the valves are closed and capped.

Failure Data: No similar occurrences have been reported.

Report No: NP-33-84-02DVR No(s): 84-004



February 17, 1984

Log No. K84-214
File: RR 2 (NP-33-84-02)

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

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

Gentlemen:

LER No. 84-002
Davis-Besse Nuclear Power Station Unit 1
Date of Occurrence: January 19, 1984

Enclosed is Licensee Event Report 84-002, which is being submitted in accordance with Technical Specification 6.9, to provide 30 day written notification of the subject occurrence.

The system code was taken from the old LER instruction book since the new IEEE-805 is not yet available.

Yours truly,

Terry D. Murray
Station Superintendent
Davis-Besse Nuclear Power Station

TDM/ljk

Enclosure

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

Mr. Walt Rogers
DB-1 NRC Resident Inspector

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