

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 5	
TITLE (4) Leakage of Containment Isolation Valves Found by Local Leak Rate Testing																					
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 9	2	1 8	4 8	4	0 1	4	0 1	0 6	2	5	8	5	0 5 0 0 0								
OPERATING MODE (9) 6			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																		
POWER LEVEL (10) 0 0 0		20.402(b)				20.406(c)				90.73(a)(2)(iv)				73.71(b)							
		20.406(a)(1)(i)				90.36(c)(1)				90.73(a)(2)(v)				73.71(a)							
		20.406(a)(1)(ii)				90.36(c)(2)				90.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 365A)							
		20.406(a)(1)(iii)				90.73(a)(2)(i)				90.73(a)(2)(vii)(A)											
		20.406(a)(1)(iv)				XX 90.73(a)(2)(ii)				90.73(a)(2)(viii)(B)											
		20.406(a)(1)(v)				90.73(a)(2)(iii)				90.73(a)(2)(ix)											
LICENSEE CONTACT FOR THIS LER (12)																					
NAME Donald E. Missig and Anita M. Motz										TELEPHONE NUMBER 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 NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs											
X	J M I S V	P 3 4	0	Y		X	J M I S V	F 1 3	0	Y											
A	J M I S V	I 2 0	8	Y		X	J M I S V	I 2 0	8	Y											
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR							
YES (If yes, complete EXPECTED SUBMISSION DATE)										NO											

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

During the performance of the Containment Vessel Local Leak Rate Test (LLRT), ST 5016.02, the personnel lock and five containment isolation valves, SA2010, CV5005, CV5006, CC1411B, and CF1541, were found with leakage in excess of Technical Specifications 3.6.1.2.b and c. There was no danger to the health and safety of the public or station personnel. The valves were repaired and retested per ST 5061.02. All valves had acceptable leakage rates per Technical Specification 3.6.1.2 prior to increasing Reactor Coolant System temperature above 200 degrees Fahrenheit.

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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) Davis-Besse Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 6 8 4 -	LER NUMBER (6)			PAGE (3)	
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		0 1 4	0 1	0 3	OF	0 5

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

Description of Occurrence: During the performance of Containment Vessel Local Leak Rate Test (LLRT), ST 5061.02, the personnel lock (PEN) and five containment isolation valves, (ISV): Station Air to Containment Isolation, SA2010, (ISV); Containment Purge supply Isolation Valves, CV5005 and CV5006, (ISV); Component Cooling Supply Header Containment Outer Isolation Motor Actuated Butterfly Valve, CC1411B, (ISV); and Core Flood Tank 1-2 Fill and Pressurization, CF1541, (ISV), were found with leakage rates in excess of Technical Specifications 3.6.1.2.b and c (see Attachment 1).

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 secondary containment "bypass leakage" to less than 0.015 La, approximately 15,000 sccm. Two of the five components, SA2010 and the personnel lock, fall under the applicability of Technical Specification 3.6.1.2.c. The action statement of Technical Specification 3.6.1.2 requires restoration of leakage rates to within limits prior to increasing the Reactor Coolant System (RCS) temperature above 200 degrees Fahrenheit.

Designation of Apparent Cause of Occurrence: SA2010 failed ST 5061.02 because the packing was not compressed, and the packing gland was hand tight.

CV5005 and CV5006 failed because the butterfly valves did not seat properly. The retaining clips, which compress the rubber seat, were loose and, therefore, the disc and seat did not seal properly.

CC1411B and CF1541 failed because the limit switch settings did not allow the valve to close fully.

The personnel lock failed because of loose packing at the interior door handwheel at the exterior door.

Analysis of Occurrence: There was no danger to the health and safety of the public or station personnel. In each of these penetrations, two containment isolation valves are always provided in series. The backup isolation valves for SA2010 and CF1541 had leakage rates of 89 sccm and 775 sccm, respectively, well within Technical Specification limits. Both CV5005 and CV5006 had gross leakage; however, this penetration vents to the Emergency Ventilation System through valve CV127 preventing a release. Repair work on CC1411B was completed, and the penetration retested per ST 5061.02 with zero leakage. The retest verified the backup isolation valve and CC1411B both seated and functioned properly. The personnel lock interior handwheel at the exterior door was repaired, and the penetration was retested with zero leakage. The retest verified the inner door had no leakage.

Corrective Action: The repairs were completed on all the valves, and the leakage rates were acceptable prior to increasing the RCS temperature above 200 degrees Fahrenheit. SA2010 was repaired under Maintenance Work Order (MWO) 1-84-2907-00 which inspected, cleaned, and restored the valve. The gaskets and packing were replaced and properly worked. An FCR was submitted since SA2010 has repeatedly

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		8 4	0 1 4	0 1	0 4	OF	0 5

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failed ST 5061.02 in prior years. SA2010 was retested and passed with an acceptable leakage rate of 280 sccm.

CV5005 and CV5006 were repaired under MWO 1-84-2970-02. The valve seat retaining clips were tightened and loc-tite applied to the clips to prevent the clips from loosening again. PP 1102.01, Pre-startup Checklist, was modified to require an LLRT prior to Mode 4 on CV5005, CV5006, CV5007, and CV5008 if the purge valves have been operated. This will ensure that operation of the valve has not increased the leakage rate above acceptable limits. In addition to the Pre-startup Checklist modification, there is Facility Change Request 83-097 Revision B to amend Technical Specifications 3.6.1.2 and 4.6.1.2 for the testing of the containment purge and exhaust valves. The penetration was retested with an excellent leakage of 246 sccm.

CC1411B was repaired under MWO 1-84-3053-00 which changed the limit switch position to ensure better seating. The valve was retested and passed with zero leakage.

CF1541 was repaired under MWO 1-84-1110-01. The valve was disassembled and inspected. Gaskets were replaced and the limit switches were recalibrated. The valve was successfully retested with a leakage rate of 1869 sccm.

The personnel lock was repaired under MWO 1-84-3347-00. The packing on the lower interior handwheel at the exterior door was adjusted. The personnel lock was tested per ST 5061.02 with zero leakage.

Failure Data: Similar occurrences were reported in Licensee Event Reports NP-33-80-52 (80-042), NP-33-82-31 (82-027), and NP-33-83-56 (83-044).

Report No: NP-33-84-15DVR No(s): 84-149 and 84-150

ATTACHMENT 1

SUPPLEMENTAL INFORMATION FOR LICENSEE EVENT REPORT 84-014

<u>VALVE</u>	<u>PENETRATION</u>	<u>MANUFACTURER</u>	<u>VALVE DESCRIPTION</u>	<u>TECHNICAL* SPECIFICATION</u>	<u>LEAKAGE IN SCCM</u>	<u>INVESTIGATIVE AND/OR CORRECTIVE MWO</u>	<u>RETEST DATE</u>	<u>RETEST LEAKAGE IN SCCM</u>
SA2010	42A	I208	Station air to containment isolation valve	3.6.1.2.c	11,800	1-84-2907-00	11/5/84	280
CV5005 & CV5006	33	P340	Containment purge supply isolation valve	3.6.1.2.b	700,000	1-84-2970-02	11/17/84	246
CC1411B	3	F130	Component cooling water supply header containment outer isolation motor actua- ted butterfly valve	3.6.1.2.b	Valve did not close to seated position	1-84-3053-00	10/19/84	0
CF1541	44A	I208	Core Flood Tank 1-2 fill and pressurization	3.6.1.2.b	Valve did not close to seated position	1-84-1110-01	11/12/84	1869
Personnel Lock	81	C310	Personnel Lock	3.6.1.2.b and 3.6.1.2.c	Penetration did not pressurize	1-84-3347-00	12/1/84	0

*Technical Specification 3.6.1.2.b limit equals approximately 600,000 sccm
 Technical Specification 3.6.1.2.c limit equals approximately 15,000 sccm



June 25, 1985

Log No. K85-393
File: RR 2 (NP-33-84-15)

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

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

Gentlemen:

Enclosed is Revision 1 to Licensee Event Report 84-014. The revisions to the report are indicated by a "1" in the left margin of each page.

Please replace your previous copy of this report with the attached revision.

Yours truly,

Stephen M. Quennoz
Plant Manager
Davis-Besse Nuclear Power Station

SMQ/ljk

Enclosure

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

Mr. Walt Rogers
DB-1 NRC Resident Inspector

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