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ComEd

July 28, 1995

TPJLTR 95-0090

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

Licensee Event Report 95-017, Docket 50-237 is being submitted as required by Technical Specification 6.6 and 10CFR50.73(a)(2)(vii).

Sincerely,

Thomas P. Joyce
Site Vice President

TPJ/:pt

Enclosure

cc: H. Miller, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Dresden Nuclear Power Station, Unit 2	05000237	1 OF 4

TITLE (4)
CCSW Vault Penetration Seals Failed Leak Test Due to Being Out of Adjustment

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 NAME	DOCKET NUMBER
07	14	95	95	-- 017 --	00	08	11	95	None	
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	000	20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)		73.71(b)	
		20.2203(a)(1)		20.2203(a)(3)(ii)		50.73(a)(2)(iv)		73.71(c)	
		20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)		OTHER	
		20.2203(a)(2)(ii)		50.36(c)(1)	X	50.73(a)(2)(vii)		(Specify in Abstract below and in Text, NRC Form 366A)	
		20.2203(a)(2)(iii)		50.36(c)(2)		50.73(a)(2)(viii)(A)			
		20.2203(a)(2)(iv)		50.73(a)(2)(i)		50.73(a)(2)(viii)(B)			
		20.2203(a)(2)(v)		50.73(a)(2)(ii)		50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Nicos P. Digrindakis Ext. 3584	(815) 942-2920

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
X	BO	SEAL	X000	N						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

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

While Unit 2 was shutdown for the D2R14 Refueling Outage, Dresden Technical Surveillance (DTS) 0030-01, Containment Cooling Service Water (CCSW) [BO] Pump Vault Penetration Surveillance Testing, was performed on July 14, 1995, at 1500 hours. When the test was performed, five penetration seals (out of a total of nine) had some visible leakage which exceeds the Technical Specification limit of zero leakage. This penetration leakage was quickly eliminated by tightening the seal and re-testing successfully. Due to the small quantity of leakage which would occur during a flooding event, the safety significance of this event is minimal.

EVENT IDENTIFICATION:

CCSW Vault Penetration Seals Failed Leak Test Due to Being Out of Adjustment

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 2 Event Date: 07/14/95 Event Time: 1500 Hours

Reactor Mode: N Mode Name: Refuel Power Level: 0%

Reactor Coolant System Pressure: 0.0 psig

B. DESCRIPTION OF EVENT:

While Unit 2 was shutdown for the D2R14 Refueling Outage, Dresden Technical Surveillance (DTS) 0030-1, CCSW Pump Vault Penetration Surveillance Testing was performed on July 14, 1995, at 1500 hours in accordance with Technical Specification 4.5.M.1.a. The test is performed by pressurizing the volume between a double penetration seal with air and maintaining a pressure of 15 psig, plus or minus 2 psig. The seals are then inspected using a soap bubble solution to identify leaks. Any penetration which has at least one seal free of leakage is considered acceptable. Any penetration which has both of its seals leaking is considered unacceptable. Five penetrations out of a total of nine showed some initial leakage through both of its seals. This leakage appeared to be very small and was quickly eliminated by tightening the affected seal and re-testing successfully.

C. CAUSE OF EVENT:

This report is being submitted pursuant to 10 CFR 50.73(a)(2)(vii), which requires the reporting of any event where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system designed to remove residual heat.

The design of the CCSW vault watertight penetrations consist of double seal assemblies. Each penetration has two seals to allow for testing by pressurizing between the two seals. The penetration seal assemblies consist of interlocking rubber links which are connected by a set of bolts and nuts. This assembly forms a belt which is connected around the pipe and its corresponding sleeve. Tightening of the bolts will then compress the rubber links forming a continuous air-tight seal. Of the nine penetrations tested, four penetrations had zero initial leakage through at least one of the two seals and five penetrations had initial leakage through both seals. These five penetrations were immediately restored to zero leakage by tightening of the link seals. The primary cause of this seal leakage was due to the seals being out of adjustment due to normal operational wear.

D. SAFETY ANALYSIS:

The Unit 2 CCSW pump vault, which houses the 2B and 2C CCSW pumps, is designed to insure that at least two CCSW pumps are protected from water damage during postulated flooding of the CCSW pump area (Elev. 495 ft.). A relatively small

leakage of water could have occurred through the vault penetration seals (minor leakage observed using soap bubble solution) during a flood condition, therefore the safety significance is minimal. Additionally, several precursors would have warned control room personnel of flooding conditions prior to the water level ever reaching the 495 foot elevation. Initially, flooding of the Condensate [SD] Pump Room would be indicated in the control room by the Turbine Building Floor Drain Sump [WK] and Equipment Drain Sump [WK] High Level alarms. If flooding continued, Condensate Pump Room flooding alarms would be received at 2 inches, and at 5 feet above the Condensate Pump Room Floor (elev. 469 ft. 8 in.). For small to medium leaks, these alarms would provide the control room operators time to investigate the cause of flooding and perform appropriate corrective actions prior to the water rising approximately 25 feet to the CCSW pump level.

The actual maximum pressures the vault penetration seals would see during a design basis flood would be less than 6 psig (the test pressure is 15 psig plus or minus 2 psig). Leakage through the penetration seals during actual flood conditions would be very small. Additionally, leakage through the penetration seals was observed while performing an air test which is conservative when compared to actual water leakage through the seal. During an actual flood condition, due to the conservative testing method and the low pressures, leakage through the penetration seals would also be considerably lower.

Due to the small quantity of leakage observed and the ample warning which would be received in the control room during a flooding event, the safety significance of this event is minimal.

E. CORRECTIVE ACTIONS:

Five penetration seals were showing a very low amount of leakage through both inner and outer seals during testing. These five penetrations were repaired immediately by tightening the link seals. These seals required adjustment due to their relatively short time in service. These five seals were all replaced during D2R13 and it is believed that plant conditions such as temperature changes and pipe movement/vibration created the need for adjustment.

Additionally, DTS 0030-01 will be revised to increase the frequency of seal testing when new seals are installed. This will correct for seal break-in. This procedure will be revised by December 31, 1995 (NTS 2371809501701).

Due to these conditions, further corrective actions beyond adjustment is not necessary nor economically justified.

F. PREVIOUS OCCURRENCES:

LER/Docket Numbers	Title
12-3-94-15/05000249	CCSW Vault Watertight Door and Penetration Seals Failed Leak Test Root Cause: Premature degradation of the primary packing caused by procedural inadequacy and seals being out of adjustment

Corrective Action: Procedure revision and adjustment of seals.

12-3-92-41/05000249 Containment Cooling Service Water Pump Vault Door Leakage Due To Worn Latch Packing

Root Cause: Worn latch packing due to component aging.

Corrective Action: Periodic replacement of packings and door seal.

G. COMPONENT FAILURE DATA:

As this event is not reportable to the NPRDS data base, and industry-wide search was not performed.