

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8810040071 DOC.DATE: 88/09/22 NOTARIZED: NO DOCKET #
 FACIL:50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
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 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-029-00:on 880824,plant shutdown required by Tech
 Specs due to high RCS unidentified leakage caused by MPD.
 W/8 ltr.

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 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/NAS	1 1	AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1	ARM/DCTS/DAB	1 1
	DEDRO	1 1	NRR/DEST/ADS 7E	1 0
	NRR/DEST/CEB 8H	1 1	NRR/DEST/ESB 8D	1 1
	NRR/DEST/ICSB 7	1 1	NRR/DEST/MEB 9H	1 1
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	NRR/DEST/RSB 8E	1 1	NRR/DEST/SGB 8D	1 1
	NRR/DLPQ/HFB 10	1 1	NRR/DLPQ/QAB 10	1 1
	NRR/DOEA/EAB 11	1 1	NRR/DREP/RAB 10	1 1
	NRR/DREP/RPB 10	2 2	NRR/DRIS/STB 9A	1 1
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EXTERNAL:	EG&G WILLIAMS,S	4 4	FORD BLDG HOY,A	1 1
	H ST LOBBY WARD	1 1	LPDR	1 1
	NRC PDR	1 1	NSIC HARRIS,J	1 1
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10/28

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2														DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 1 OF 0 4										PAGE (3) 1 OF 04											
TITLE (4) Plant Shutdown Required by Technical Specifications Due to High Reactor Coolant System Unidentified Leakage Caused by Maintenance Program Deficiency																																			
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	8	2	4	8	8	8	8	0	2	9	0	0	0	9	2	2	8	8											0	5	0	0	0		
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																
1			20.402(b)					20.405(c)					50.73(a)(2)(iv)					73.71(b)																	
POWER LEVEL (10)			20.405(a)(1)(i)					50.38(c)(1)					50.73(a)(2)(v)					73.71(c)																	
1			20.405(a)(1)(ii)					50.38(c)(2)					50.73(a)(2)(vii)					OTHER (Specify in Abstract below and in Text, NRC Form 366A)																	
0			20.405(a)(1)(iii)					50.73(a)(2)(i)					50.73(a)(2)(viii)(A)																						
			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																		TELEPHONE NUMBER																	
W.S. Davison, Compliance Engineer																		AREA CODE																	
																		5 0 9 3 1 7 1 - 1 2 5 1 0 1																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) Ext. 2726																																			
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS							
SUPPLEMENTAL REPORT EXPECTED (14)																		EXPECTED SUBMISSION DATE (15)																	
YES (If yes, complete EXPECTED SUBMISSION DATE)																		MONTH DAY YEAR																	
X NO																																			

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	0 15 0 0 0 3 9 7 8 8	—	0 2 9	—	0 0	0 2	OF 0 4

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

Plant Conditions

- a) Power Level - 100%
- b) Plant Mode - 1 (Power Operation)

Event Description

On August 24, 1988, at 1120 hours, plant operators observed Reactor Coolant System unidentified leakage to be in excess of the 5 gallons per minute maximum listed in Plant Technical Specifications. As required by plant procedures, an Unusual Event was declared and telephone notifications were made at 1130 hours. A normal plant shutdown was commenced at 1137 hours with reactor hot shutdown (Mode 3) being achieved at 1411 hours.

Containment Drywell entry was made at 2144 hours to inspect for the sources of unidentified leakage. At 2250 hours, RCIC-V-63, (Reactor Core Insolation Cooling Steam Supply Inboard Isolation Valve) was reported as having a large packing leak. Further detailed inspection identified RCIC-V-63 as being the major source of leakage into the Drywell.

At 2310 hours, the decision was made to proceed to Operational Mode 4 Cold Shutdown to make repairs to the valve. Required plant surveillances were initiated and plant cooldown was commenced. The cooldown proceeded normally with Reactor Heat Removal Shutdown Cooling (RHR SDC) being initiated at 0423 hours on August 25, 1988.

At 0545 hours, the Unusual Event was terminated and appropriate notifications were made.

Further Evaluation

1. This LER is written pursuant to the requirements of 10CFR50.73 (a)(2)(i)(A) to document the completion of a "nuclear plant shutdown required by the Plant's Technical Specifications;"
2. The excessive unidentified leakage was verified by the use of both the installed instrumentation and manual volumetric measurement techniques. Throughout the duration of the shutdown, the leakage was monitored at an increased frequency to provide trend information.
3. RCIC-V-63 is the primary containment inboard isolation valve for the steam supply line to the RCIC turbine and is not isolable from the reactor pressure vessel. It is a 10 inch motor operated gate valve manufactured by Velan Valve Company.
4. Examination of RCIC-V-63 revealed that portions of the installed valve packing had been extruded through the area between the valve stem and packing gland bushing.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT IN more space is required, use additional NRC Form 365A's (17)

5. The root cause of this failure was determined to be a maintenance program deficiency, in that no preventative maintenance program exists for "high risk" valve packing. A potential thus exists for this type of failure in other "high risk" valves (i.e., those inside primary containment). As part of the event analysis, a random sampling of the records for this high risk family of valves was conducted. This sampling identified no valves which had lantern rings installed. For valves with no lantern ring, PPM 10.2.7 is adequate to ensure proper sequencing of valve packing.
6. A contributing cause of this event has been determined to be procedural inadequacy in that the plant procedure PPM 10.2.7 "Valve Troubleshooting, Handling and Repair" did not contain specific instruction addressing only the addition of packing instead of repacking a valve completely. Corrective maintenance was last performed on the packing of this valve in November of 1986. At that time, packing was successfully added to the valve to stop leakage.

If the valve had been completely repacked, the specific steps of PPM 10.2.7 covering repacking would have directed the removal of lantern rings to increase packing reliability and installation of packing in the sequence recommended by the manufacturer. Instead, since addition of packing is not specifically covered, the procedure was not used and valve maintenance may have been performed in a manner which resulted in an increased probability of packing leakage. Also, for valves with lantern rings, PPM 10.2.7 does not require braided packing above and below the lantern ring as recommended by the manufacturer.

Corrective Action

1. PPM 10.2.7 will be revised to include specific instruction on sequencing of packing during both packing addition and complete repacking evolutions based upon recommendations from manufacturer technical manuals.
2. The "high risk" family of valves will be identified and a review of valve packing records will be performed to determine if lantern rings are installed.
3. An evaluation will be performed to determine the need for a preventative maintenance program to repack "high risk" valves and to remove lantern rings if appropriate.

Safety Significance

All appropriate plant operating procedures, emergency procedures and Technical Specifications relating to unidentified leakage were correctly followed during this event. The operations and management staff functioned to guide the plant in a conservatively safe manner to a shutdown condition well within the time frames listed in the plants Technical Specifications. This event posed no threat to the safety of Plant personnel or the public.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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

Similar Events

None

EIIS InformationText Reference

Reactor Coolant System
Containment Drywell
RCIC-V-63
RHR SDC
Reactor Pressure Vessel

EIIS Reference

System	Component
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NH	- - - - -
NH	- - - - -
BN	V
BO	- - - - -
NH	- - - - -

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

Docket No. 50-397

September 22, 1988

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 88-029-00

Dear Sir: .

Transmitted herewith is Licensee Event Report No. 88-029-00 for the WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Very truly yours,



C.M. Powers (M/D 927M)
WNP-2 Plant Manager

CMP:sm

Enclosure:
Licensee Event Report No. 88-029-00

cc: Mr. John B. Martin, NRC - Region V
Mr. C.J. Bosted, NRC Site (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D.L. Williams, BPA (M/D 399)

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