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Vice President

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Telephone (914) 737-8116

March 17, 1993

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 93-03-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

The attached Licensee Event Report LER 93-03-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,

Attachment

cc: Mr. Thomas T. Martin
Regional Administrator - Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Francis J. Williams, Jr., Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit No. 2	0 5 0 0 0 2 4 7	1 OF 0 5

TITLE (4)

Isolation Valve Seal Water System Leakage Limit Exceeded

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 5 0 0 0
0 2	1 5	9 3	9 3	0 0 3	0 0	0 3	1 7	9 3		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)			
N		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		20.405(a)(1)(ii)	50.36(c)(2)	X 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
George Dahl, Engineer	9 1 4 5 2 6 - 5 1 8 6

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	
X	B Q	V	A 3 9 1	Y		X	C B	2 0	R 3 4 0	Y	
X	C C	F C V	A 3 9 1	Y		X	C B	2 0	L 2 0 0	Y	

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 fifteen single-space typewritten lines) (16)

Surveillance tests of valves categorized by Appendix J as types "B" and "C" were performed during the current refueling outage. When individual valve leakage amounts were totaled, it was determined that the 14,700 cubic centimeters per hour leakage permitted by the Technical Specification for the Isolation Valve Seal Water System was exceeded. Excessive leakage occurred across five containment isolation valves. The valves have been repaired and testing will be performed prior to plant startup to ensure leakage is within acceptable limits.

NRC FORM 366B (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)
FAILURE CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point Unit No. 2	0 5 0 0 0 2 4 7	9 3	— 0 0 3	— 0 0	0 2 OF 0 5

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	
X	A B	V	G 2 5 7	Y							

NRC Form 366B (6-89)

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Total leakage of Isolation Valve Seal Water System (IVSWS) exceeded Technical Specification limit.

EVENT DATE:

February 15, 1993

REPORT DUE DATE:

March 17, 1993

REFERENCE:

Significant Occurrence Report (SOR) 93-70

PAST SIMILAR OCCURRENCES:

LER 84-006, LER 88-003, LER 89-008

DESCRIPTION OF OCCURRENCE:

On February 15, 1993, refueling surveillance test PT-R26A, "Local IVSWS Test Type 'B' and 'C'", was completed and it was determined that the total leakage from the IVSWS was 217,638 cubic centimeters per hour. Technical Specification 4.4.D.2.c specifies an allowable leakage rate of 14,700 cubic centimeters per hour. The excessive leakage was primarily across five valves, which together exhibited a leakage of 214,380 cubic centimeters per hour.

ANALYSIS OF OCCURRENCE:

The IVSWS assures the effectiveness of those containment isolation valves that are located in lines connected to the reactor coolant system, or that could be exposed to the containment atmosphere during any condition which requires containment isolation, by providing a water seal at the valves. The system provides a simple and reliable means for injecting seal water between the seats and stem packing of the globe and double disc types of isolation valves, and into the piping between closed diaphragm type isolation valves. The resulting water seal blocks any potential leakage of the containment atmosphere through the valve seats and stem packing. The water is introduced at a pressure slightly higher than the containment design pressure of 47 psig. The possibility of leakage from the containment or reactor coolant system past the first isolation point is thus prevented by assuring that if leakage does exist, it will be from the IVSWS into containment.

This system operates to limit fission product release from containment during a design basis accident. Although no credit is taken for the operation of this system in the calculation of offsite accident doses, it does provide assurance that the containment leak rate is lower than that assumed in the accident analysis should an accident occur.

This event is reportable because a Technical Specification limit was exceeded. If the valves had been impaired during plant operation, and a postulated accident requiring containment isolation had occurred, the seal-water tank would have been depleted in less time than assumed in the system design. However, two separate sources of makeup water are provided to ensure that an adequate supply of seal-water is available for long-term operation. The makeup rate required to compensate for the leakage from these five valves is approximately one gallon per minute, which is well within the capacity of the makeup water sources.

CAUSE OF OCCURRENCE:

Excessive leakage occurred across the following five containment isolation valves:

1. Valve 250C - Seal water to Reactor Coolant Pump (RCP)

   This motor-operated valve torqued out early, preventing it from closing sufficiently. Packing friction may have been excessive. Valve was repacked and torque switches were adjusted.

CAUSE OF OCCURRENCE: (continued)

2. Valve 222 - Seal water return from RCP

   Similar to above. Operator was replaced and tested satisfactorily.

3. Valve 625 - Component cooling water return from RCP thermal barrier

   Light scoring of disc and seat attributed to normal wear. Repaired by lapping.

4. Valve 519 - Makeup water to Pressurizer Relief Tank

   This air-operated valve required adjustment of the operator to obtain proper full stroke.

5. Valve 851A - Safety injection pump no. 22 discharge isolation valve

   Wearing of disc and seats attributed to normal wear. Repaired by lapping.

CORRECTIVE ACTIONS:

Repairs and adjustments were made to each individual valve as necessary and as described above. Each valve will be retested prior to startup of the plant to ensure leakage criteria is met.