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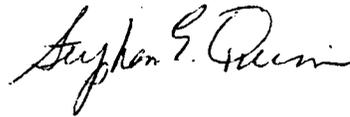
December 13, 1995

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 95-22-00

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

The attached Licensee Event Report LER 95-22-00 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
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King of Prussia, PA 19406

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH 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) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7	PAGE (3) 1 OF 0 4
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TITLE (4)
Isolation of Nitrogen Supply to the Isolation Valve Seal Water System

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)
1	1	3 9 5	9 5	0 2 2	0 0	1 2 1	3 9 5				0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										
POWER LEVEL (10) 1 0 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)				
	20.405(a)(1)(i)		50.38(c)(1)		50.73(a)(2)(v)		73.71(c)				
	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)				
	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)	X	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 George Dahl, Engineer								TELEPHONE NUMBER			
								AREA CODE			
								9 1 4		7 3 4 - 5 1 8 6	

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		

SUPPLEMENTAL REPORT EXPECTED (14)								EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO												

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

During the performance of a tagout on November 13, 1995, with the plant at 100% power, it was discovered that the nitrogen bottle bank normally aligned to pressurize the Isolation Valve Seal Water System (IVSWS) seal water tank in the event of a postulated accident was isolated from the nitrogen header which is its flowpath to the tank. The isolation was due to the inadvertent closure of a valve that is normally required to be open. During the indeterminate period of time that the valve was closed, the only supply of nitrogen to the IVSWS was from a nitrogen trailer that is non-safety related and not seismically qualified. This condition does not fully conform to the design basis of the plant. A subsequent analysis demonstrates that the nitrogen fill line and the trailer will not fail during a seismic event. Upon discovery, the line-up of the nitrogen bottle bank was restored through valve repositioning. Further, a supplemental operator log was initiated to periodically verify proper nitrogen bottle pressures and valve position. Although part of the plant design basis, no credit is taken for the operation of the IVSWS in calculating offsite accident doses.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7	LER NUMBER (6)			PAGE (3)	
		YEAR 9 5	SEQUENTIAL NUMBER - 0 2 2	REVISION NUMBER - 0 0	0 2	OF 04

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Isolation of the Isolation Valve Seal Water System (IVSWS) seal water tank from its safety related and seismically qualified nitrogen source due to the inadvertent closure of a valve in the supply line resulted in a condition that was outside the design basis of the plant.

EVENT DATE:

November 13, 1995

REPORT DUE DATE:

December 13, 1995

REFERENCES:

Significant Occurrence Reports (SOR) 95-778, 95-778A, 95-778B

PAST SIMILAR OCCURRENCE:

LER 94-02

DESCRIPTION OF OCCURRENCE:

While operating at 100% power on November 13, 1995, a tagout was to be performed to isolate the nitrogen trailer from the supply header. The trailer shares this header with a nitrogen bottle bank (requiring a minimum of 10 bottles) which are aligned to supply the IVSWS seal water tank with a nitrogen overpressure. The operator performing the tagout discovered that the bottle bank isolation valve (SGN-41), which is normally required to be open but needed to be closed for the tagout, was already in the closed position. Performance of the tagout was halted, SGN-41 was opened, and a caution tag was installed. In addition, the individual nitrogen bottle stops were verified to be open and caution tagged open. The required pressure was also verified. Further, a supplemental operator log was initiated to periodically verify proper nitrogen bottle pressures and to verify that SGN-41 is in the open position.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
							0 3 OF 0 4

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

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 that 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. Nitrogen gas supplied to the IVSWS seal water tank provides the required pressure to inject the seal water. 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.

The nitrogen supply to the IVSWS seal water tank is provided from the system that provides nitrogen to nuclear equipment. Three sources of nitrogen are available to supply the IVSWS seal water tank through a common header. During normal operation, a nitrogen trailer is connected to the header for use by other equipment. In the case of a postulated accident requiring the actuation of IVSWS, this trailer could supply the nitrogen for the seal water tank. However, this trailer is not safety related or qualified to seismic design criteria and so cannot be relied upon. Two safety related and seismically qualified nitrogen sources are therefore provided. The preferred supply is a regulator-controlled bank of a minimum of ten bottles which are normally aligned to the nitrogen system. A back-up source comprising two normally isolated bottles is also available.

The IVSWS 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 calculating 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. Since the preferred safety related and seismically qualified nitrogen source was isolated from the IVSWS seal water tank and the only nitrogen supply was from a source (the trailer) that is non-safety related and not seismically qualified, the IVSWS was outside its design basis and the event is reportable per 10 CFR 50.73(a)(2)(ii)(B).

Subsequently, an analysis has been performed which demonstrates that the outside portion of the fill line and the trailer will not fail during a seismic event. Therefore, the nitrogen trailer would have been available to supply the IVSWS seal water tank during and after a seismic event which minimizes the consequences of this event.

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FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7 9 5 - 0 2 2 - 0 0	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

CAUSE OF OCCURRENCE:

The direct cause of the occurrence was incorrect positioning of valve SGN-41. The correct open position of SGN-41 was verified by check-off list in April 1995. Subsequent to that in September 1995, the valve was verified open via a temporary procedure change to a check-off list, but this was not formally documented. Therefore, a review of work orders and tagouts completed since the last documented performance of the check-off list in April 1995 was conducted to determine if work had been performed on the valve or the valve had been manipulated. The nitrogen system had no work performed in that time period and no tagouts had involved SGN-41. Based on the belief that the valve had been verified open in September, interviews were conducted with plant and control room operators who had been on shift between September and the event. No operator had any knowledge of a need to manipulate or actual manipulation of SGN-41. Lastly, no test was performed between April and the discovery date that would have required the valve to be manipulated. It is not known at this time how the valve was closed. A final root cause investigation of this event is being performed and a cause for the valve closure will be reported if it is determined.

CORRECTIVE ACTIONS:

Immediate corrective actions taken were:

- o SGN-41 was opened and caution tagged opened. The required 10 bottles of nitrogen were verified to be aligned to the nitrogen system, their isolation valves were caution tagged open, and bottle pressures were verified.
- o A temporary supplemental operator log was initiated to verify that the nitrogen bottles are at the required pressure and that SGN-41 is open.
- o A walkdown was conducted of the nitrogen system supplying the IVSWS to identify areas needing maintenance to assure system leaktightness (fittings, valves), and appropriate actions (corrective maintenance or system line-ups) have been taken.

An analysis of the nitrogen trailer and the portion of the fill line outside the primary auxiliary building was performed to determine their capability to withstand a seismic event. Results show that the fill line and the trailer will not fail during a seismic event.

The final root cause investigation will consider and may recommend additional long-term corrective actions, including proceduralized routine periodic confirmation of the open position of SGN-41. Any long-term corrective actions will be reported if they are instituted.