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August 21, 1989

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 89-09-00

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

The attached Licensee Event Report LER 89-09-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,

Stephen B. Bram

Attachment

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

Mr. Donald S. Brinkman, Senior Project Manager
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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit 2	0 5 0 0 0 2 4 7	1 OF 0 3

TITLE (4)

Actuation of Pressurizer Spray in Violation of Tech. Specs.

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 6	2 6	8 9	8 9	0 0 9	0 0	0 8	2 1	8 9		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)	0 0 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)		50.36(c)(2)		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
John Ellwanger, Principal Engineer	9 1 4 5 2 6 - 5 1 8 2

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	

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)

LER 89-09

On June 26, 1989, during cooldown from a hydrotest of the Reactor Coolant System, the Pressurizer spray line valve by-pass valve was opened. At the time of the valve manipulation a temperature differential of 478°F existed across the spray nozzle. The Technical Specifications prohibit actuation of the pressurizer spray if the spray nozzle temperature differential exceeds 320°F.

The cause of the event was a temporary procedure change to the hydrostatic test procedure which permitted opening of the spray by-pass valves. The effect, if any, of the thermal transient is currently under engineering evaluation.

This event was not discovered until July 21, 1989 during an evaluation of plant computer data.

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Technical Specification Violation

REPORTABILITY DETERMINATION DATE:

July 21, 1989

REPORT DUE DATE: August 20, 1989

REFERENCES:

SOR 89-426

PAST SIMILAR OCCURRENCE:

None

DESCRIPTION OF OCCURRENCE:

The spray valves were shut and isolated for the duration of the primary plant hydrostatic test. At the end of the test the temperature difference between the pressurizer vapor space and the spray line fluid was 478.3°F. A temporary procedure change to the hydrostatic test procedure cautioned against the use of spray valves when the temperature differential exceeded the Technical Specification 3.1.B.5 limit of 320°F in order not to violate this limit. The spray line by-pass valves were opened allowing the spray lines to warm up, decreasing the vapor space/fluid temperature differential to below 320°F. Once this was accomplished, the spray valves were then opened for normal pressurizer pressure control.

The intent of Technical Specification 3.1.B.5 was to prevent a thermal shock to the pressurizer spray nozzle. While the spray valves themselves were not opened when a differential of greater than 320°F existed, the by-pass valves were. The opening of the by-pass valves allows cold spray line fluid to slowly spray out the nozzle. The cold fluid is replaced by hot Reactor Coolant System water effectively warming up the spray lines. The amount of fluid that flows through the spray nozzle is unknown when the by-pass valves are opened and could cause a thermal transient across the nozzle, albeit far less than if the spray valves themselves were used in this condition. The TPC to the hydrostatic test procedure permitted the operators to open the by-pass valves in this condition.

ANALYSIS OF OCCURRENCE:

There was no apparent indication of adverse affects. As stated previously, the amount of fluid that flows through the spray nozzle is not known when only the by-pass valves are opened. The transient has been referred to engineering for evaluation.

CAUSE OF OCCURRENCE:

Although the temporary procedure change cautioned against opening the spray valves when the differential temperature limit was exceeded, it did not prohibit opening of the by-pass valve around the spray valve. The event is attributed to the use of steam in the pressurizer for the purpose of the hydrotest. Prior to this outage the charging pumps in conjunction with a nitrogen bubble was used for pressure control during the hydrotest,

CORRECTIVE ACTION:

The data concerning the transient has been sent to engineering for evaluation of the consequences of the thermal transient and whether any further corrective action is warranted. The event is not expected to occur during plant operation as a small amount of spray is required to be continuously present. As long as spray flow is maintained the temperature gradient is not expected to be exceeded. The spray line decreases in temperature only when it is isolated and no flow exists. The hydrotest procedure will be revised to preclude spray in the event the temperature gradient limit is exceeded prior to the next hydrotest.

As a further action, personnel authorized to prepare temporary procedure changes will be instructed to carefully consider whether the procedure change is consistent with the technical basis of the procedure. In the current example spray operation is prohibited when the temperature differential limit is exceeded. The procedure change should have highlighted this point and prohibited the use of main spray valves and bypass valves accordingly.