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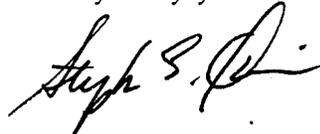
April 12, 1996

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 96-05-00

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

The attached Licensee Event Report 96-05-00 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. J. Harold, Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
Washington, DC 20555

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Senior Resident Inspector
US Nuclear Regulatory Commission
PO Box 38
Buchanan, NY 10511

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 1

PAGE (3)
1 OF 4

TITLE (4)
Procedure Inadequacy Leading to Potential Violation of Safety Analysis Assumptions

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)
03	13	96	96	005	00	04	12	96		05000
										05000

OPERATING MODE (9)
N

POWER LEVEL (10)
1100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)	
20.405(a)(1)(ii)		50.38(c)(1)		X 50.73(a)(2)(v)		73.71(c)	
20.405(a)(1)(iii)		50.38(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
20.405(a)(1)(iv)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)			
20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(viii)(B)			
		50.73(a)(2)(iii)		50.73(a)(2)(ix)			

LICENSEE CONTACT FOR THIS LER (12)

NAME
Arthur P. Ginsberg, Engineer

TELEPHONE NUMBER
AREA CODE: 212 460-4331

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)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

As a result of a review of industry event number 30087 at Indian Point 3, on March 8, 1996, it was determined that under certain conditions, the Indian Point 2 plant may have operated outside its design basis.

Plant operating procedures permit transfer of nitrogen or water through common fill lines. This allows cross-connection of accumulator gas and/or liquid space. In the event of a large break loss of coolant accident during the period of potential cross-connection, nitrogen pressure is postulated to bleed off through one accumulator through the faulted loop to containment. This may occur before the accumulator fill valves close to isolate the accumulators from the gas fill line.

As a result, under the above conditions, the nitrogen pressure in the cross-connected accumulators may be less than that assumed in the accident analyses when the accumulators are called upon to operate.

Standard Operating Procedure 10.1.1 was revised on March 12, 1996 to prohibit cross-connection of accumulator gas or liquid spaces when the RCS temperature is greater than 350F.

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

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 6	— 0 0 5	— 0 0	0 2	OF 0 4

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Plant procedures allowing cross-connection of accumulators could cause the nitrogen pressure to be less than that assumed in the accident analyses.

EVENT DATE:

March 13, 1996

REPORT DUE DATE:

April 16, 1996

REFERENCES:

None

PAST SIMILAR OCCURRENCES:

None

DESCRIPTION OF OCCURRENCE:

Plant operating procedure SOP 10.1.1 permits transfer of nitrogen through common fill lines to equalize pressures so that more than one accumulator can be brought into the required range simultaneously. The same procedure does not prohibit transferring water through common fill lines to bring levels into their required range. Using common fill lines allows cross-connection of the accumulators' gas and/or liquid space. In the event of a large break loss of coolant accident during the time period of cross-connection, there is a potential that a break could occur in a cold leg while the accumulators are cross-connected to each other. The Nitrogen gas pressure of the cross-tied accumulator(s) will decrease rapidly below 600 psig due to gas escaping through the cross-connected line(s) to the accumulator in the broken loop, through the faulted pipe, and then into containment. On March 12, 1996 calculations were initiated to determine the effect of cross-connecting the accumulators. As a precaution, the procedure was changed to prohibit cross

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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	LER NUMBER (8)			PAGE (3)	
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

DESCRIPTION OF OCCURRENCE: (continued)

connection above 350F. On March 13, 1996 calculations were completed that showed that the pressure of the accumulator on the non faulted loop would decrease to below the value assumed in the UFSAR before the accumulator fill valves close, which would isolate the accumulators from the common fill line(s).

As a result, under the above conditions, the nitrogen pressure in the cross-connected accumulators may be less than that assumed in the accident analysis when the accumulators are called upon to operate.

ANALYSIS OF OCCURRENCE

Plant procedures to fill the accumulators were probably developed before the plant went into operation and before the current Appendix K was the licensing basis for the analysis of Loss of Coolant Accident (LOCA). Cross-tying the accumulators was an efficient way of filling all the accumulators to their required levels and pressures.

Filling of the accumulators is not a continuous action but is done intermittently. Cross-tying the accumulators is only done for the filling operations. Analysis has shown that although the Nitrogen pressure will decrease to below the value that is assumed in the accident analysis, after an isolation signal is received, the accumulators would supply some water to the core. The isolation occurs when an SI signal closes the Instrument Air containment isolation valve, PCV-1228, which causes the Nitrogen supply isolation valves to each accumulator (891A through 891D) to close.

CAUSE OF OCCURRENCE:

Based on available information, it is probable that cross-connecting accumulators to bring the level and pressures of all accumulators to their required bands has been practiced since the initial startup of the plant. It is noted that as soon as the levels and/or pressures are within their acceptable band, the accumulators were isolated. The cause of the occurrence can be assumed to be that it was not realized that analyses had not been performed assuming cross-connection of the accumulators during a potential accident situation, and neither the UFSAR nor Technical Specification explicitly states that the accumulators should not be tied together.

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TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 6	- 0 0 5	- 0 0	0 4	OF

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

CORRECTIVE ACTIONS:

1. A procedure change to System Operating Procedure 10.1.1 was issued immediately upon recognition of a potential problem. The change prohibits cross-connection of accumulator gas or liquid spaces when the RCS temperature is greater than 350F.
2. The UFSAR will be updated to state the conditions and the basis under which the accumulators can be cross-connected.
3. This LER will be included in the training of operations and engineering support personnel as a means of educating operators on the basis for not allowing cross connection, and of stimulating discussion on other procedures which could potentially cause a violation of accident analysis assumptions.