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): INDIAN POINT UNIT 2

DOCKET NUMBER (2): 0 5 0 0 0 2 4 7

PAGE (3): 1 OF 0 1 4

TITLE (4): Inadequate Alarm Response Procedure for High Energy Line Break

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 3	2 0	8 6	8 6	0 1 0	0 0	0 4	2 1	8 6		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 1

POWER LEVEL (10): 0 1 0 0

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)(i)	50.36(c)(1)	X 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)	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
MICHAEL BLATT	AREA CODE 9 1 4 5 2 1 0 - 5 1 2 1 7

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	
D				N							

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)

A review of the High Energy Line Break Analysis for Indian Point Unit 2 revealed a procedural inadequacy regarding a line break in the piping penetration area. A procedure change was subsequently implemented which addresses appropriate operator response necessary to assure that the design basis of the analysis is met.

The public health and safety were not affected.

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Plant and System Identification:

Westinghouse 4-loop Pressurized Water Reactor: 900 MWe

Identification of Occurrence:

A review of Significant Occurrence Report 86-118 determined that an alarm response procedure inadequacy existed.

Event Date: March 20, 1986

Reportability Determination Date: March 20, 1986

Report Due Date: April 21, 1986

Past Similar Occurrence: LER 82-010-00

Description of Occurrence:

The reactor was in the hot shutdown condition. There were no inoperable structures, components or systems which contributed to this event.

In the course of inquiries regarding the design basis of the Primary Auxiliary Building (PAB) Piping Penetration Area a procedural inadequacy was discovered.

Our submittal of April 9, 1973 stated that temperature detectors will be installed in the Piping Penetration Area of the PAB. Three detectors are in place and provide a common alarm in the Central Control Room (CCR) when the temperature in the subject region of the PAB reaches 120°F. Even though we do not expect the temperature in the area to reach a point where equipment damage could occur, as a conservative measure the High Energy Line Break (HELB) analysis credits operator action as being the reason that no safeguards equipment would be affected by a HELB in the Piping Penetration Area. Thus, prompt operator action is required

to assure isolation of a ruptured line. The Alarm Response Procedure (ARP) for the subject alarm actuation was determined on March 20, 1986 not to be, in and of itself, adequate to assure prompt operator response to a HELB in the Piping Penetration Area, were one to occur.

Analysis of Occurrence:

This occurrence was determined to be a reportable event because the procedural inadequacy could have delayed the intended operator action in response to an alarm from the temperature detectors in the Piping Penetration Area.

Prompt operator action to isolate a postulated HELB in the PAB Piping Penetration Area would be assured in most cases via response to plant parameter changes and other alarm actuations which would occur in addition to the high temperature alarm. A postulated HELB in this area is expected to heat up the environment sufficiently to actuate the associated alarm. The ARP addressing the alarm did not provide the guidance necessary to properly identify and isolate the HELB. However, with the exception of a blowdown line rupture downstream of the flow control throttle valve, a rupture of high energy line in this area would disturb plant operating parameters so that the ruptured line could be promptly identified and isolated from the CCR.

A blowdown line rupture downstream of the flow control throttle valve is expected to heat up the Piping Penetration Area and actuate the associated alarm. However, such a rupture would not disturb plant operating parameters quickly enough to allow for isolation of the line in a timely manner as intended in our April 9, 1973 submittal. The ARP was therefore adjudged to permit the design basis of our HELB analysis to be exceeded. In our fire protection analysis for Appendix R to 10 CFR 50, the piping penetration area is circumvented by the Alternate Safe Shutdown System (ASSS). Thus, given potential loss of equipment in this area due to a HELB, the ASSS can be used in the same manner as for a design basis fire. In our April 9, 1973 submittal we assumed the use of Class I equipment to achieve safe shutdown. Even though portions of the ASSS are not required to be Class I, the ASSS was available to safely shutdown the plant.

Since the ARP was deemed inadequate, there was less than reasonable assurance that prompt operator action would have been taken as intended in the HELB analysis contained in our April 9, 1973 submittal.

Cause of Occurrence:

The Subject Alarm Response Procedure, "Panel SMF CCR Safety Injection, Rev. 0" was issued on October 15, 1984. The scope of the project which prepared this procedure included a commitment search of documents dated January 1979 through October 1983. This procedure preparation effort thus did not consider commitments made in the April 9, 1973 submittal.

Corrective Actions:

A procedure change was issued to the subject ARP. This change provides correct explicit information to the operator upon receipt of a high temperature alarm condition in the PAB Piping Penetration Area. The ARP, as amended, is adequate for the postulated conditions in our April 9, 1973 submittal.

John D. O'Toole
Vice President

Consolidated Edison Company of New York, Inc.
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Telephone (212) 460-2533

April 21, 1986

Re: Indian Point Unit No. 2
Docket No. 50-247
LER-86-010-00

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

Dear Sirs:

The attached Licensee Event Report LER-86-010-00 is hereby submitted in accordance with the requirements of 10CFR Part 50.73.

Very truly yours,

John D. O'Toole

attach.
cc: Dr. Thomas E. Murley,
Regional Administrator - Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
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