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 3

TITLE (4)

EXCESSIVE RESPONSE TIME OF AUX. FEEDWATER PUMP ROOM TEMPERATURE SWITCHES

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 4	0 6	8 4	8 4	- 0 0 4	- 0 0	0 5	0 7	8 4		0 5 0 0 0
										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)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)
		20.406(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.406(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
MICHAEL BLATT, DIRECTOR-REGULATORY AFFAIRS	AREA CODE 9 1 4 5 2 6 5 1 2 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	
A	H H	T S	A 4 9 9	Y							
A	H H	T S	A 4 9 9	Y							

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	NO				

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

During a review of vendor date supplied as part of the Environmental Qualification Program, it was determined that the response time for redundant temperature switches was in excess of that required. Either temperature switch is relied upon to isolate steam to the turbine driven auxiliary feedwater pump in the event a steam line break occurs in the room where the pump is located. This automatic isolation action protects the instrumentation and motor insulation of the two motor driven auxiliary feedwater pump which would be exposed to the environment induced by the steam line break.

Immediate corrective action was taken by opening of the equipment roll up door to the pump room to provide steam venting and to avoid an excessive temperature rise if a break should occur. A guard was stationed to ensure the door remains open and to maintain security. In addition, the setpoints of the temperature switches were reduced to 110°F to provide an additional margin of safety.

On April 6, 1984 at 2:40 p.m. the results of an analysis of the response time for redundant temperature switches were evaluated. These switches are located on the ceiling of the Auxiliary Feedwater Pump Room in the vicinity of the turbine driven pump. A conclusion was made that, under certain circumstances, the room temperature could exceed the previously calculated value.

Either of the temperature switches in question, TC-1112A and TC-1113A, ASCO Model SAAR/QR11A&CDR, was relied upon to provide isolation of the inlet steam to the turbine driven auxiliary feedwater pump in the event of a pipe break in the room where the pump is located. As part of the Environmental Qualification Program, these switches wee installed to replace switches which were unqualified. Analysis of recent response time data indicated that by the time the switches activated for a given setpoint (max. of 135°F) the temperature of the environment could reach 217°F under the most pessimistic assumptions which could reasonably be made. This temperature exceeds the limits specified for the redundant motor driven feedwater pumps and associated equipment which would be exposed to the same high temperature environment. This equipment includes motor insulation, solenoid valves and control instrumentation.

Short term corrective action taken immediately included opening the roll up door adjacent to the turbine driven pump to provide steam venting, and reducing the setpoint for steam line isolation to 110°F. The area was posted with a guard around the clock to maintain security and to assure the door remained open. An analysis with these newly established parameters indicates that the room temperature following a postulated break would be in the range of 165°F to 170°F. This is below the maximum temperature specified for the electrical equipment with the lowest temperature limits; viz. the insulation on the motor driven pumps. It should also be noted that the peak room temperature calculated is a transient condition of short duration (seconds) and decays rapidly. The maximum permissable motor insulation temperature is specified for continuous operation is never reached.

Long term corrective action has now been completed. Two temperature. detectors with rapid response time have been installed, which has permitted restoration of the setpoint to its original value, 130 $\pm$ 5°F. The switches selected have been qualified for a more severe application (LOCA) utilizing sealing of the threaded connections with room temperature vulcanization (R.T.V.) compound.

John D. O'Toole
Vice President

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

May 7, 1984

Re: Indian Point Unit No. 2
Docket No. 50-247
LER-84-004-00

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

Dear Sirs:

The attached Licensee Event Report LER-84-004-00 is hereby submitted in accordance with the requirements of 10 CFR 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
King of Prussia, Pa. 19406

Mr. Thomas Foley, Senior Resident Inspector
U. S. Nuclear Regulatory Commission
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Buchanan, New York 10511

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