NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point, Unit 3	0 5 0 0 0 2 8 6	1 OF 0 4

TITLE (4) Refueling Water Storage Tank Low Level Alarm Setpoints Above Specified Levels

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	1 3	8 9	8 9	0 0 5	0 0	0 4	0 7	8 9		0 5 0 0 0
										0 5 0 0 0

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

OPERATING MODE (9)	N								
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	
Edward Diamond	9 1 4	7 3 6 - 8 0 4 5

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
X	B P	L I C	B 0 8 0	Y					
X	B P	L T	F 1 8 0	Y					

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)

On March 13, 1989, while performing surveillance test 3PC-R10, "Refueling Water Storage Tank Level Calibration" with the reactor defueled for a steam generator replacement outage, it was noted that both Refueling Water Storage Tank level instruments did not satisfy the "as-found" operability criteria. Specifically, calibration points on LT-920 were below applicable limits, and the low level alarm setpoint of LIC-921 was above the applicable limit. This resulted in actual low level alarm setpoints for the Refueling Water Storage Tank being above the required Technical Specification volume. The affected instruments were recalibrated to the test acceptance criteria. An engineering study will be conducted to determine an appropriate calibration schedule to preclude recurrence.

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DESCRIPTION OF THE EVENT

On March 13, 1989, with the reactor defueled for a steam generator replacement outage, data obtained from surveillance test 3PC-R10, "Refueling Water Storage Tank Level Calibration", did not satisfy the operability criteria for the "as-found" condition. Foxboro (F180) level transmitter LT-920 (BP)(LT) (Model E-11-GM-SAA1) was found to be transmitting a low output (outside acceptable limits) for a given input. Barton (B080) level indicating controller LIC-921 (BP)(LIC) (Model 288) was found to have a higher than acceptable alarm setpoint. The net effect was that the three Refueling Water Storage Tank (RWST) low level alarm setpoints which serve as a prompt to transition to the recirculation phase of safety injection were set high.

It is not known how long the alarm setpoints exceeded acceptable values; 3PC-R-10 was last performed on May 6, 1987.

The transmitters were recalibrated to comply with the test acceptance criteria.

INVESTIGATION OF THE EVENT

Subsequent investigation revealed that the calibration of the RWST instrumentation had deteriorated due to instrument drift.

CAUSES OF THE EVENT

The following root cause was determined from the investigation of the event:

> The periodic calibration schedule of the RWST level instrumentation is less than adequate in that the refueling frequency has been demonstrated to be too long a time interval between calibrations.

CORRECTIVE ACTIONS

As a result of this event an engineering investigation will be performed to determine a more appropriate periodic calibration schedule for the RWST level instrumentation.

ANALYSIS OF THE EVENT

This event is reportable under 10CFR50.73(a)(2)(i)(B). Technical Specification 3.3.A.1.b states that the Reactor Coolant System (RCS) average temperature (Tavg) shall not exceed 200 degrees Fahrenheit unless one RWST low level alarm is operable and set to alarm between 98,100 gallons and 100,850 gallons of water the the tank. Technical Specification 3.3.A.3.k further requires that RCS Tavg shall not exceed 350 degrees Fahrenheit unless the RWST low level alarms are operable and set to alarm between 98,100 gallons and 100,850 gallons of water in the tank. Low level alarm setpoints on bistables LC-920A and LC-920B, both of which utilize LT-920 for input signal, and LIC-921 were calculated to be 102,468 gallons, 101,437 gallons, and 182,622 gallons respectively. All the alarm setpoints were above the specified range, and although discovered with the plant in a shutdown, defueled condition, it is likely that the plant operated outside of the Technical Specification limits when RCS Tavg was greater than 200 degrees Fahrenheit.

This event did not degrade the level of plant safety or result in an unanalyzed condition for the following reasons:

1. Emergency Operating Procedure ES-1.3, "Transfer To Cold Leg Recirculation", requires <u>two</u> criteria to be satisfied prior to establishing cold leg recirculation:

   a. RWST low level alarm

   b. Containment level greater than 47 feet 2 inches

2. Early RWST low level alarm is addressed in Section 6.2 of the Final Safety Analysis Report (FSAR)

3. Assuming a design basis loss of coolant accident had occurred when the RWST low level alarm was out of tolerance, and the control room operators initiated transfer to cold leg recirculation upon receipt of the first RWST low level alarm, in this case, with 182,622 gallons remaining in the RWST, adequate water level would exist in Containment to establish cold leg recirculation. Containment Spray would continue to deliver the contents of the RWST to Containment.

SECURING FROM THE EVENT

The RWST level instruments were recalibrated in accordance with 3PC-R10, and returned to service the same day, March 13, 1989. A similar event was reported in LER 286-87007.

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511

914-736-8000

New York Power Authority

April 7, 1989
IP3-89-028

Docket No. 50-286
License No. DPR-64

Document Control Desk
Main Station PI-137
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

The attached Licensee Event Report LER 89-005-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements per 10CFR50.73(a)(2)(i).

Very truly yours,

William A. Josiger
Resident Manager
Indian Point Three Nuclear Power Plant

ED/rj
Attachment

cc: Mr. William Russell
Regional Administrator
Region 1
U.S. Nuclear Regulatory Commission
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King of Prussia, Pennsylvania 19406

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