

Indian Point 3
Nuclear Power Plant
P.O. Box 215
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John H. Garrity
Resident Manager

March 16, 1994
IPN-94-032

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop PI-137
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Licensee Event Report # 94-002-00
"Failure of RCS Overpressurization Trip Alarm To Annunciate,
Due To Personnel Error, Places The Plant Outside Design Basis"

Dear Sir:

The attached Licensee Event Report (LER) 94-002-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements pursuant to 10CFR50.73(a)(2)(i)(B) and 10CFR50.73(a)(2)(ii)(B). Also attached are the commitments made by the Authority in this LER.

Very truly yours,


John H. Garrity
Resident Manager
Indian Point 3 Nuclear Power Plant

JHG/vjm

cc: See Next Page

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PDR ADDCK 05000286
PDR

JE 22

Mr. Thomas T. Martin
Regional Administrator
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

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700 Galleria Parkway
Atlanta, Georgia 30339-5957

U.S. NRC Resident Inspectors' Office
Indian Point 3

Attachment 1
List of Commitments

Number	Commitment	Due
IPN-94-032-01	The Authority conducted a review of surveillance tests required by Technical Specifications to ensure that alarms and trips required for instrument channel functional tests and instrument channel calibrations are properly tested. The Authority will verify the results of this review and revise surveillance tests that are deemed deficient to ensure that all Technical Specification requirements will be met during surveillance and post modification testing.	Prior to plant startup
IPN-94-032-02	The I&C Department will review each control room instrumentation rack, supervisory panel, and flight panel to ensure all terminations within these areas are in accordance with electrical termination specifications and regulations.	Prior to plant startup

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)
Indian Point Unit 3

DOCKET NUMBER (2)
05000286

PAGE (3)
1 OF 4

TITLE (4)
Failure of RCS Overpressurization Trip Alarm To Annunciate, Due To Personnel Error, Places The Plant Outside Design Basis

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 NAME	DOCKET NUMBER
2	15	94	94	-- 002 --	00	3	16	94	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)						
POWER LEVEL (10) 000	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						
	20.405(a)(1)(iii)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)					
	20.405(a)(1)(iv)	<input checked="" type="checkbox"/>	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: Michael Durr, I&C Engineer
TELEPHONE NUMBER (Include Area Code): (914) 736-8356

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 15 single-spaced typewritten lines) (16)

ABSTRACT

On February 15, 1994, with the plant in a cold shutdown condition, Instrumentation and Control technicians issued Deviation Event Report 94-174 which identified the failure of the Reactor Coolant System Overpressurization Trip Train A alarm to annunciate during the performance of a surveillance test. The alarm can was determined to be miswired since the installation of modification MOD 85-3-033 ED in August 1987. The cause of the event was personnel error; inattention to detail when installing the modification. A contributing cause to the duration of the event was that the modification retest and the surveillance test were inadequate. Corrective actions include a review of surveillance tests required by Technical Specifications; and the review of each control room instrumentation rack, supervisory panel, and flight panel to ensure all terminations within these areas are in accordance with electrical termination specifications and regulations. Further review involving the details of the inadequate surveillance test is continuing and the results will be submitted in a separate LER.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)		PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
		94	-- 002 --	00
				2 OF 4

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

DESCRIPTION OF EVENT

On February 15, 1994, with the plant in a cold shutdown condition and the reactor coolant system (RCS) at atmospheric pressure, Instrumentation and Control (I&C) technicians issued Deviation Event Report (DER) 94-174 to document the identified failure of the RCS Overpressurization (OPS) Trip Train A alarm (PA) to annunciate during the performance of surveillance test 3PT-SA11 revision 12, "O.P.S. Analog Test." The alarm is required by Technical Specification section 1.9.2 and table 4.1-1 item 38 to be operable. The inoperable alarm also placed the plant outside its design basis since the alarm is required to alert the operators of a transient.

The I&C Department issued work request 93-08656 to troubleshoot the failure. I&C technicians checked the alarm circuit and determined that the alarm wires were dead ended in a wireway in supervisory panel SGF. After investigation, the I&C technicians determined that the wires from the terminal block to the RCS Overpressurization Trip Train A alarm, were in the wireway adjacent to the terminal block. This wiring deficiency was corrected and the alarm tested satisfactorily.

I&C Engineering investigated the work history for OPS and determined that the most probable cause for the miswiring was an error during the August 1987 installation of modification MOD 85-3-033 ED. This modification was intended to remove the alarms for the rate of change annunciators associated with the OPS system by sparing the input signal wires in supervisory panel SGF. In the as found condition, the two wires to the OPS Train A alarm were disconnected and the two wires to the rate of change annunciators were connected in their place. The two terminal blocks are side by side. I&C Engineering concluded that the wrong wires were removed and an error made in the connection.

Other sources of the event were ruled out because: the original OPS installation document documents a test of the OPS system which demonstrated that the RCS Overpressurization Trip Train A alarm operated; no other modifications required work on the same connections; and the surveillance test was inadequate to identify when the alarm was disconnected.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
		94	-- 002 --	00
				3 OF 4

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

CAUSE OF EVENT

The most probable cause of the event, a Technical Specification violation, was personnel error, inattention to detail, when installing and testing the modification. A contributing cause to the duration of the event was an inadequate modification retest and surveillance test. This statement is based on a review of the work performed in the modification, interviews with the technician who performed the troubleshooting and reviews of previous revisions of the associated wiring drawings. Further review involving the details of the inadequate surveillance test is continuing and the results will be submitted in a separate LER.

CORRECTIVE ACTION

The following corrective actions are being performed to prevent recurrence of this event:

1. The Authority conducted a review of surveillance tests required by Technical Specifications to ensure that alarms and trips required for instrument channel functional tests and instrument channel calibrations are properly tested. The Authority will verify the results of this review and revise surveillance tests that are deemed deficient to ensure that all Technical Specification requirements will be met during surveillance and post modification testing. Actions are to be completed prior to plant startup.
2. The I&C Department will review each control room instrumentation rack, supervisory panel, and flight panel to ensure all terminations within these areas are in accordance with electrical termination specifications and regulations. This corrective action will be performed prior to plant startup.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	-- 002 --	00	

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

ANALYSIS OF EVENT

This event is reportable under 10CFR50.73(a)(2)(i)(B) which requires reporting any operation or condition prohibited by the Technical Specifications. RCS Overpressurization Trip Train A alarm, required by Technical Specification 1.9.2 and table 4.1-1 item 38, was inoperable between August 1987 and February 15, 1994. This event is also reportable under 10CFR50.73(a)(2)(ii)(B) which requires reporting any event that placed the plant outside its design basis as RCS Overpressurization Trip Train alarms are required to alert the operators of a transient.

Licensee Event Reports LER 93-042-00 and LER 93-049-00 reported similar events involving inadequate surveillance tests.

SAFETY SIGNIFICANCE

This event did not affect the health and safety of the public. The OPS logic and valve actuation circuit has been tested satisfactorily between August 1987 and February 1994. The operator had redundant indication (i.e., RCS Overpressurization Trip Train B and RCS Overpressurization Pressure Trip alarms) to alert the control room personnel of the OPS actuation. Operator actions required by ARP-10, "Alarm Response Procedure, Panel SGF, Auxiliary Coolant System", would have been carried out.

The extent of condition review will determine if any additional modification errors have resulted in inoperable circuits. The I&C Department will inspect terminations in the control room to ensure all terminations are in accordance with electrical termination specifications and regulations. Also, surveillance tests will be assessed to assure that Technical Specification alarms and trips are properly tested.