Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 736.8001

New York Power Authority

John H. Garrity
Resident Manager

October 08, 1993
IPN-93-120

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 # 93-034-00
"Turbine Trip Low Auto Stop Oil Pressure Channel Not Calibrated As Required By Technical Specifications Due To Personnel Error"

Dear Sir:

The attached Licensee Event Report (LER) 93-034-00 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). Also attached are the commitments made by the Authority in this LER.

Very truly yours,

John H Garrity

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

JHG/DJC/vjm

cc: See Next Page



IE22

Mr. Thomas T. Martin
Regional Administrator
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King of Prussia, Pennsylvania 19406

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700 Galleria Parkway
Atlanta, Georgia 30339-5957

U.S. NRC Resident Inspector's Office
Indian Point 3

Attachment
List of Commitments

| Number | Commitment | Due Date |
|---|---|---|
| IPN-93-120-01 | Surveillance test procedure 3PC-R41 was revised on September 24, 1993 to include a requirement for a functional test of the Turbine Trip Low Auto Stop Oil Pressure channel alarm and trip functions. This revised procedure will be performed prior to start-up. | Prior to plant startup |

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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.

# LICENSEE EVENT REPORT (LER)

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

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Indian Point 3 | 05000286 | 1 OF 4 |

TITLE (4) Turbine Trip Low Auto Stop Oil Pressure Channel Not Calibrated As Required By Technical Specifications Due To Personnel Error

| 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 |
| 09 | 10 | 93 | 93 | -- 034 -- | 00 | 10 | 08 | 93 | | 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER 05000 |

| OPERATING MODE (9) | N |
|---|---|
| POWER LEVEL (10) | 000 |

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) |
| | 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) | ✓ | 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) | | 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 (Include Area Code) |
|---|---|
| Richard Burroni, I & C Engineering Supervisor | (914) 736-8794 |

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 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 15 single-spaced typewritten lines) (16)

On September 10, 1993, with the plant in the cold shutdown condition, Instrumentation and Control (I&C) department personnel determined that the surveillance test for the turbine trip low auto stop oil pressure channel did not fulfill the channel calibration requirements of the technical specification. As a result, the turbine trip low auto stop oil pressure alarm and trip functions were not tested as required. The cause of the event was personnel error - inattention to detail when the surveillance test was initially written in August 1987. Corrective actions include revising and performing this procedure prior to start-up, counseling personnel writing and revising I&C procedures, and ensuring surveillance tests are current and demonstrate operability prior to startup.

## Description of Event

On September 10, 1993, with the plant in a cold shutdown condition with reactor coolant temperature at 111 degrees fahrenheit and pressure at atmospheric pressure, during the revision of a surveillance test, Instrumentation and Control (I&C) engineering personnel determined that the test for the turbine trip low auto stop oil pressure channel (IT) inadequately addressed the technical specification channel calibration requirements.

Technical Specification Section 1.9.3 defines an instrument channel calibration as follows: "Adjustment of channel output such that it responds, with acceptable range and accuracy, to known values of the parameter which the channel measures. Calibration shall encompass the entire channel, including alarm or trip, and shall be deemed to include the channel functional test."

Surveillance test 3PC-R41, "Turbine Auto Stop Oil Pressure Trip Calibration", did not functionally test the turbine trip low auto stop oil pressure channel alarm (PA) and trip functions. Instead the surveillance test only calibrated the three turbine trip low auto stop oil pressure switches (63). The inadequate test existed since August 1987 when the surveillance test was initially issued.

## Cause of Event

The cause of the event was personnel error - inattention to detail when initially writing the surveillance test 3PC-R41 in August 1987. The engineer writing the test inadequately addressed the requirements of the technical specifications.

## Corrective Actions

The following corrective actions will be performed to prevent recurrence of this event.

1. Surveillance test procedure 3PC-R41 was revised on September 24, 1993 to include a requirement for a functional test of the turbine trip low auto stop oil pressure alarm and trip functions. This revised procedure will be performed prior to startup.

2. The I & C Department, in conjunction with the Performance Department, will certify that surveillance tests are current and demonstrate equipment operability. Reference NYPA Letter IPN-93-099 commitment IPN-93-099-01.

3. The I & C Engineering Supervisor counseled personnel currently writing I&C department surveillance tests to ensure technical specification compliance when surveillance procedures are being written or revised.

## Analysis of the Event

This event is reportable under 10CFR50.73 (a)(2)(i)(B). The licensee shall report: "Any operation or condition prohibited by the plant's Technical Specifications." Technical Specification Section 4.1.A, Table 4.1-1 item 21, requires that the turbine trip low auto stop oil pressure channel is calibrated on a frequency of eighteen months, and Section 1.9.3 defines calibration as including testing the channel alarm and trip functions. The criterion to test the alarm and trip functions was not met since the test was initially written in August 1987.

Licensee Event Report LER 93-023-00 reported a similar event in which a surveillance test was improperly revised that resulted in not adequately addressing toxic gas monitor channel test requirements of the plant technical specifications.

## Safety Significance

This event did not affect the health and safety of the public. The turbine trip low auto stop oil pressure switches are configured in a one out of three logic for the alarm and two out of three logic for the trip signal. If turbine auto stop oil pressure drops below a given setpoint, as sensed by the switches, an annunciator alarms and a reactor trip signal is initiated, when their associated logic is met. The alarm logic provides additional assurance that the alarm will function even with two switch failures occurring. The alarm alerts the control room licensed operators of the low auto stop oil pressure and they will take proper action. A turbine trip is sensed when two of the three auto stop oil pressure signals are below the setpoint. A turbine trip signal results in a direct reactor trip when power is above ten percent. The turbine trip resulting in a reactor trip is provided as an anticipatory trip to protect the reactor against loss of heat sink. The design basis accident analysis for a major loss of external electrical load (this includes a turbine trip) evaluated the plant design without a direct reactor trip. The analysis concludes that without a direct or immediate reactor trip no hazard is presented to the integrity of the reactor coolant system or the main steam system. The plant design uses other reactor protection functions, as described in the design basis documents, to ensure the safe shutdown of the plant.