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

NewYork Power Authority

L. M. Hill
Resident Manager

May 26, 1995
IPN-95-061

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

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Licensee Event Report # 95-009-00
"Inadvertent Engineered Safety Features Actuation Due to an Inadequate Shutdown Surveillance Procedure"

Dear Sir:

NYPA is submitting the attached Licensee Event Report (LER) 95-009-00 as required by 10CFR50.73. This event is of the type defined in 10CFR50.73(a)(2)(iv). Also, in Attachment I, NYPA listed a new commitment being made as part of this submittal.

Very truly yours,

L. M. Hill
Resident Manager
Indian Point 3 Nuclear Power Plant

LMH/DJC/vjw

Attachments

cc: See next page

JE22

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

INPO Records Center
700 Galleria Parkway
Atlanta, Georgia 30339-5957

U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

Attachment I
List of Commitments

Number	Commitment	Due
IPN-95-061-01	I&C Engineering is reviewing, and revising when required, all shutdown surveillance tests to ensure the applicability to the appropriate plant conditions.	June 28, 1995

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 Unit 3	05000286	1 OF 4

TITLE (4) Inadvertent Engineered Safety Features Actuation Due to an Inadequate Shutdown Surveillance Procedure

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
04	29	95	95	-- 009 --	00	05	26	95		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)
Steve Manzione, Instrument & Controls Engineer	(914) 736-8783

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On April 29, 1995, at 13:27 hours, with the reactor coolant system at approximately 850 psig and approximately 342°F, an unplanned engineered safety features (ESF) actuation occurred due to an invalid low-low pressurizer pressure safety injection signal. The performance of a shutdown monthly surveillance test generated a safety injection signal.

ESF equipment functioned as expected. Actual safety injection flow into the reactor coolant system did not occur because the safety injection pump control switches were in the trip pullout position for this mode of operation. At 14:15 hours, the control room operators ended the inadvertent engineered safety features actuation event and returned the plant to the normal configuration for this mode of operation, using the Emergency Operating Procedures as guidance. Operations made a four-hour notification to the NRC at 15:48 hours. The cause of the event was a deficiency in surveillance test 3ST-M14A, "Safety Injection Functional Train A Logic, " in that the test did not contain the appropriate steps for performance with the plant above the cold shutdown condition.

Corrective actions began at 16:30 hours with an event critique chaired by the Instrument and Controls (I&C) Manager and attended by personnel from I&C, Operations and Licensing. The I&C Manager suspended the performance of shutdown surveillance tests until I&C Engineering reviews them to ensure applicability to the appropriate plant conditions.

DESCRIPTION OF EVENT

On April 29, 1995, the plant was in a hot shutdown condition with reactor power at 0%, reactor coolant system temperature at approximately 342°F and pressurizer pressure at approximately 850 psig. At 08:25 hours the I&C technicians began performing surveillance test 3ST-M14A, "Safety Injection Logic Functional Train A." Since testing was performed with the plant in the hot shutdown condition, the test provided steps to input test signals simulating normal parameters for steam generator level, steam pressure, pressurizer pressure and reactor coolant system (RCS) temperature. At 13:27 hours, as directed by the procedure, the I&C technicians removed the second of the three test signals that were simulating a normal pressurizer pressure value of greater than 1990 psig. Upon removal of the test signals the simulated pressurizer pressure drops to zero psig. This caused the Engineered Safety Features (ESF) logic to initiate a safety injection signal due to low-low pressurizer pressure on two of the three pressurizer pressure inputs. As a result, an unplanned and invalid ESF actuation occurred. ESF equipment responded as expected for the safety injection signal. Actual safety injection flow into the RCS did not occur because the safety injection pump control switches were in the trip pullout position for operation in this plant condition. At 14:15 hours, the control room operators ended the inadvertent ESF event and returned the plant to the normal configuration for this mode of operation, using the Emergency Operating Procedures as guidance.

CAUSE OF THE EVENT

The cause of the event was a deficiency in surveillance test 3ST-M14A. The procedure did not have the appropriate steps to ensure an ESF actuation would not occur for performance with the plant in a condition above cold shutdown.

Contributing to this event was the following:

- Surveillance test 3ST-M14A was effective on December 14, 1989, to functionally check Train A of the safety injection (SI) logic with the plant in the cold shutdown condition. Before this procedure, when the plant was in cold shutdown, I&C tested using the normal procedure with alternate provisions to simulate signals. The shutdown test differs from the normal safety injection logic functional test 3PT-M14A performed at power by providing steps to simulate normal parameters for steam generator level, steam pressure, pressurizer pressure and RCS temperature. The precautions and limitation step 2.1 in 3ST-M14A permits testing with the plant in the cold shutdown condition or if the

above parameters are not within their normal operating range. Therefore, this step allows testing with the plant above the cold shutdown condition, which is outside the scope of the test as it was written in 1989. The procedure was deficient because it allowed the performance of the test above cold shutdown, but it did not address that both Train A and B manual defeat SI switches are in the "Normal" position. If the plant were to be in cold shutdown, then both Train A and B SI defeat switches would be in the "Defeat" position. The procedure did not contain the proper steps for removing the simulated pressurizer pressure signals with the plant in conditions above cold shutdown when the SI defeat switches are in "Normal" position. It was during the removal of the simulated pressurizer pressure signals that the inadvertent ESF actuation occurred.

- This event occurred when performing shutdown test 3ST-M14A for the first time with the plant above cold shutdown. Typically, performances of shutdown tests are with the plant in the cold shutdown condition. Normally, during a plant startup the duration of the transition from cold shutdown to normal operation is less than one month. The shutdown test is performed in cold shutdown and the next month the normal procedure is performed. Currently, this startup duration is greater than one month prompting the next monthly test to be done, which was the shutdown test since the plant was not in power operation. Also, recently, performance of the shutdown test for train B (i.e., 3ST-M14B) was successful with the plant in the cold shutdown condition.

CORRECTIVE ACTIONS

The following corrective actions have been or will be performed to prevent recurrence of this event:

- On April 29, 1995, after the event, the I&C Manager suspended the performance of shutdown surveillance tests (i.e., ST designated) until I&C Engineering reviews them to ensure applicability to the appropriate plant conditions.

- On May 5, 1995, a Performance Enhancement Review Committee (PERC) convened to identify the inappropriate actions, causes of the event and any additional corrective actions required. Our Action Tracking System will track the additional corrective actions identified during the PERC meeting.

- I&C Engineering is reviewing, and revising when required, the shutdown surveillance tests to ensure their applicability to the appropriate plant conditions. They will complete this review and associated revisions before June 28, 1995.

ANALYSIS OF THE EVENT

This event is reportable under 10 CFR 50.73(a)(2)(iv). The license shall report any event or condition that resulted in a manual or automatic actuation of any engineered safety features including the reactor protection system. On April 29, 1995, at 13:27 hours, an unplanned and invalid actuation of the engineered safety features logic occurred. This resulted in the ESF equipment responding as expected. However, actual safety injection flow to the reactor coolant system did not occur because the safety injection pump control switches were in the trip pullout position for this mode of operation. At 14:15 hours, the control room operators ended the inadvertent engineered safety features actuation event and returned the plant to the normal configuration for the mode of operation, using Emergency Operating Procedures as guidance. At 15:48 hours, Operations made a four-hour non-emergency notification (notification # 28738) to the NRC according to 10 CFR 50.72(b)(2)(ii).

SAFETY SIGNIFICANCE

This event did not affect the health and safety of the public. The unplanned and invalid Engineered Safety Features actuation did not unduly challenge the plant's safety systems. The design of the ESF equipment is to respond to ESF actuation signals. The reactor coolant system maintained the temperature and pressure bands required by the plant operating condition. There was no safety injection flow into the reactor coolant system. ESF equipment responded as expected for the condition the plant was in. Therefore, the event did not adversely affect the plant nor place the plant in a condition outside its design basis.