James A. FitzPatrick
Nuclear Power Plant
P.O. Box 41
Lycoming, New York 13093

315-342-3840

NewYorkPower
Authority

Michael J. Colomb
Site Executive Officer

July 11, 1997
JAFP-97-0242

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Subject: **Docket No. 50-333**
LICENSEE EVENT REPORT: LER-97-007

Reactor Core Isolation Cooling Automatic Isolation During Surveillance Test

Dear Sir:

This report is submitted in accordance with 10 CFR Part 50.73(a)(2)(iv), "Any event or condition that resulted in a manual or automatic actuation of any engineered safety feature (ESF), including the reactor protection System (RPS)".

There are no commitments contained in this report.

Questions concerning this report may be addressed to Mr. Robert Steigerwald at (315) 349-6209.

Very truly yours,

MICHAEL J. COLOMB

MJC:RS:las
Enclosure

cc: USNRC, Region 1
USNRC Resident Inspector
INPO Records Center

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NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), 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)	PAGE (3)
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TITLE (4)

Reactor Core Isolation Cooling Automatic Isolation During Surveillance Test

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
									N/A	05000
06	17	97	97 --	007 --	00	07	11	97	N/A	05000

OPERATING MODE (9)	N
POWER LEVEL (10)	100

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

	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
	20.2203(a)(2)(ii)		20.2203(a)(4)	X	50.73(a)(2)(iv)		OTHER
	20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
	20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Mr. Robert Steigerwald, Licensing Engineer	(315) 349-6209

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).	X	NO				

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

At 11:18 hours on 6/17/97, while performing Surveillance Test, ST-24E, "RCIC Logic System Functional and Simulated Automatic Actuation Test" at 100% power, a Reactor Core Isolation Cooling (RCIC) system automatic isolation occurred. During the surveillance test, a RCIC high steam line flow signal was received, causing the isolation. The momentary high steam line flow signal was caused when steam was admitted to a de-pressurized volume of piping between the outboard containment isolation valve (13MOV-16) and the RCIC steam admission valve (13MOV-131). This portion of piping becomes de-pressurized and re-pressurized during the performance of the surveillance test. The RCIC automatic isolation feature functioned as designed.

A Temporary Operating Procedure was used to restore the RCIC system. The RCIC system was verified to be operable. Procedures associated with RCIC system were reviewed to determine if a similar system configuration could result. The review identified an operating procedure that was revised and two surveillance procedures that will be revised prior to their next performance. The revision to these procedures will change the method used to re-pressurize the piping.

EIIS Codes are in []

EVENT DESCRIPTION

At 11:18 hours on June 17, 1997, while operating at 100 percent power, a Reactor Core Isolation Cooling (RCIC) system [BN] automatic isolation occurred. During Surveillance Test ST-24E, "RCIC Logic System Functional and Simulated Automatic Actuation Test", a high steam line flow signal was received, causing the isolation.

During the performance of ST-24E the volume of piping between the RCIC steam supply outboard containment isolation valve (13MOV-16) and the steam admission valve (13MOV-131) becomes de-pressurized. During the re-pressurization portion of the test, the moment that 13MOV-16 came off of the closed seat, steam flow passing the high steam flow detector elbow taps caused an isolation of the RCIC system, shutting the Inboard Containment Isolation Valve 13MOV-15.

CAUSE OF THE EVENT

The procedure, ST-24E, is required once per operating cycle. This procedure had been used in the past and re-pressurization of the steam line had occurred without incident. Since the surveillance procedure was successfully performed in the past, a review of procedure revisions back to the previous performance of the surveillance was done. This review concluded that revisions to the surveillance procedure were not a contributing cause for this event. However, this was the first performance of the test since changing from an 18 month to a 24 month operating cycle and implementation of Power Uprate. The change to a 24 month operating cycle required lowering of the setpoint to account for greater instrument drift. Implementation of Power Uprate raised reactor pressure approximately 35 pounds. Engineering review determined that the combination of a lower setpoint and an increase in reactor pressure was the most probable cause of the RCIC isolation.

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

ANALYSIS OF THE EVENT

Prior to the performance of the surveillance test ST-24E, the plant was placed in a Limiting Condition of Operation (LCO) requiring the plant to be shutdown in the cold condition within seven days. The consequences of the event were minimal since the High Pressure Coolant Injection system (HPCI) [BJ] was determined to be operable prior to entering the LCO. Also, the Automatic De-pressurization System (ADS) [AD] and the Low Pressure Injection systems (Core Spray [BM] and Low Pressure Coolant Injection (LPCI) of the Residual Heat Removal system (RHR) [BO]) were operable.

CORRECTIVE ACTIONS

1. A Temporary Operating Procedure was generated to restore the system to a standby lineup that included manual operation of 13MOV-16 to control the re-pressurization rate of the piping. This was completed successfully.

2. Work requests were generated to verify instrument calibrations and isolation setpoints. The work requests were completed and no adjustments were required.

3. Operating Procedure OP-19, "Reactor Core Isolation Cooling System", was revised to provide steps to slowly pressurize the RCIC steam line by manually cracking open outboard isolation valve 13MOV-16 if there is greater than 1000 psi in the reactor vessel and less than 200 psi RCIC steam supply pressure.

4. Operations reviewed RCIC surveillance procedures to determine if a similar system configuration could result in a similar de-pressurization of piping. Two procedures were identified and will be revised to require manual operation of 13MOV-16 if there is greater than 1000 psi in the reactor vessel and less than 200 psig RCIC steam supply pressure. (These procedures are not scheduled to be performed until the next operating cycle.) **Scheduled to be completed September 15, 1997.**

ADDITIONAL INFORMATION

A. Similar Events: LER-87-016, this event is similar in that rapid repressurization of a depressurized volume of piping caused a high steam line flow isolation of the RCIC system. The cause was due to an operator performing a step out of order in a surveillance procedure. The volume of piping was from the inboard containment isolation valve to the steam admission valve. This is a larger volume of depressurized piping than that described in this LER.