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

315-342-3840

New York Power Authority

Michael J. Colomb
Site Executive Officer

June 16, 1997
JAFP-97-0218

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

SUBJECT: **James A. FitzPatrick Nuclear Power Plant**
Docket No. 50-333
Reply to Notice of Violation
NRC Inspection Report 50-333/97-02

Dear Sir:

In accordance with the provisions of 10 CFR 2.201, Notice of Violation, the Authority submits a response to the notice transmitted by your letter dated May 8, 1997. Your letter refers to the results of an inspection completed at the James A. FitzPatrick Nuclear Power Plant on April 12, 1997.

Attachment I provides the description of the violation, reason for the violation, the corrective actions that have been taken and the results achieved, corrective actions to be taken to understand the broader implications of the violation and avoid further violations, and the date of full compliance.

There are no commitments contained in this report.

If you have any question, please contact Mr. Arthur Zaremba at (315) 349-6365.

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IE01

Very truly yours,

MICHAEL J. COLOMB

STATE OF NEW YORK
COUNTY OF OSWEGO
Subscribed and sworn to before me
this 16 day of June, 1997

Nancy B. Czerow
NOTARY PUBLIC

MJC:RAP:las
cc: next page

NANCY B. CZEROW
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Commission Expires 1-26-99

cc: Regional Administrator
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Attachments:

I. Reply to Notice of Violation

Violation

10 CFR Part 50 Appendix B, Criterion XVI, "Corrective Action", requires, in part that measures shall be established to assure that conditions adverse to quality, such as failures, deficiencies, and deviations, are promptly identified and corrected, with corrective action taken to preclude repetition of the condition.

Contrary to the above, the licensee failed to take prompt and adequate corrective action for a condition adverse to quality as exemplified by the following:

Actions taken following the May 19, 1993 shutdown cooling isolation due to a reactor high pressure trip, including the recommendations of Technical Services System Engineering Memorandum, JSEM-93-049, Root Cause Analysis of RHR Shutdown Cooling Isolations, dated November 11, 1993, to install a high point vent, were not completed and did not prevent the reoccurrence of the automatic engineered safety feature actuation of shutdown cooling isolation on January 24, 1997.

This is a Severity Level IV violation (Supplement I).

Admission Or Denial Of The Alleged Violation

The Authority agrees that past corrective actions taken did not prevent the shutdown cooling (SDC) isolation which occurred on January 24, 1997; however, the Authority has completed several design and procedural improvements as a result of analysis of previous SDC isolation events. These improvements have been effective in reducing the occurrence of SDC isolation events. Prior to the May 19, 1993 SDC isolation, seven isolation events occurred over a three year period. Since completion of the system improvements, no SDC isolation events (other than the recent event) have occurred.

Reasons For The Violation

In 1993, the Authority completed an in-depth engineering review of the recurring problem (seven events in three years) with inadvertent SDC isolations. This review is documented in Technical Services System Engineering Memorandum JSEM-93-049, "Root Cause Analysis of RHR Shutdown Cooling Isolations", dated November 11, 1993. This review was unable to definitively identify a root cause for the isolation problem due to the numerous design and procedural issues identified during the root cause analysis. The most likely root cause of the intermittent isolation events was postulated to be air in the pressure instrument 02PS-128A sensing line. The cause was based on high speed chattering of the pressure switch, a symptom which is indicative of air in the instrument sensing line and the fact that the isolations did not occur during troubleshooting efforts after thorough fill and vent of the pressure instrument and sensing line. Although not formally eliminated as a potential root cause, the Authority determined that the air voids in the RHR suction piping were not the most likely root cause. This was based on the fact that isolations had been experienced while shifting RHR pumps on an operating RHR loop. Based on the 1993 evaluation, immediate corrective action included ensuring the pressure sensing line was properly vented and backfilled. The long term corrective action

was rerouting the pressure switch 02PS-128A sensing line to eliminate the air trap. The 02PS-128A sensing line reroute was completed in March 1995.

The 1993 engineering review also provided the recommendation to install a high point vent. This action, however, was a low priority, compared to the other recommendations discussed above, based on the conclusions of the engineering report. Although this action was documented and screened through the plant modification process, this modification was never committed by NYPA as a corrective action to prevent SDC isolations in the previous Licensee Event Reports because the most likely root cause for the isolations was the air in the instrument sensing line. LER corrective action commitments were completed (procedure changes and removal of air trap in the instrument sensing line). During the 1994 and 1996 refuel outages and unplanned plant shutdowns, shutdown cooling operation was successfully initiated numerous times with no inadvertent isolations. Based on these results, the high point vent modification continued to be a low priority.

Further review of the recent SDC isolation on January 24, 1997 by engineering recommended that the high point vent modification be installed. This modification will improve system venting capabilities. The operating procedure was revised to require a minimum time for venting the system.

Corrective Actions That Have Been Taken

- Shutdown Cooling was placed in service after resetting the isolation logic and refilling and venting the system in accordance with plant procedures.

- The operating procedure OP-13D RHR Shutdown Cooling was revised to require a minimum fill and vent time of thirty minutes to ensure the best possible system fill and vent given the existing configuration.

- A plant modification to install a high point vent to the system has been reprioritized and is planned to be completed prior to startup from the next refueling outage.

Results Achieved

Based on historical review, previous corrective actions have resulted in significant improvement in reducing SDC isolations, but they have not been fully effective in preventing all SDC isolations.

Corrective Actions To Be Taken

The Authority will complete an engineering evaluation of this event relative to previous events documented in JSEM-93-049 to evaluate other contributing causes. **[Scheduled Completion Date: 12/16/97]**

The high point vent modification will be completed prior to startup from the next refueling outage. This modification will improve the ability to fill and vent the RHR SDC suction piping. **[Scheduled Completion Date: 01/01/99]**

The Authority will monitor the effectiveness of this modification in preventing RHR SDC isolations and will perform an engineering evaluation of RHR SDC system operation. Additional corrective actions will be developed, if necessary, to assure proper RHR system response to shutdown cooling initiations.

This violation will be submitted to the Training Program Review Committee for development of lessons learned from this event into appropriate engineering and management training. **[Scheduled Completion Date: 07/01/97]**

Date When Full Compliance Will Be Achieved

Full compliance will be achieved upon completion of the high point vent modification scheduled to be completed prior to startup from the next refueling outage.