James A. FitzPatrick Nuclear Power Plant 268 Lake Road P.O. Box 41 Lycorning, New York 13093

315-342-3840



Michael J. Colomb Site Executive Officer

July 30, 1997 JAFP-97-0268

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Mail Station P1-137 Washington, DC 20555

SUBJECT:

James A. FitzPatrick Nuclear Power Plant Docket No. 50-333 Reply to Notice of Violation NRC Special Inspection Report 50-333/97-03

Gentlemen:

In accordance with the provisions of 10 CFR 2.201, <u>Notice of Violation</u>, the Authority submits a response to the notice transmitted by your letter dated June 23, 1997. Your letter refers to the results of the special safety inspection conducted by Messrs. G. Hunegs, L. Briggs, and R. Fernandes from March 4, 1997 to March 13, 1997, at the James A. FitzPatrick Nuclear Power Plant.

The Authority believes the corrective actions taken have been effective in improving our human performance. There have been no significant errors since the March 3, 1997 event and there is indication that the number of personnel errors has decreased through the last quarter (April - June, 1997). A heightened awareness of human performance has been achieved. Daily and weekly manager observations in the field have noted personnel exercising sound decision making and a questioning attitude. When discrepancies are identified, corrections are made and the appropriate feedback is provided to the plant staff via standdowns, tailgates, or briefs. Senior Plant Management continues to reinforce that reactor safety is a site and individual culture that must be personalized in our day-to-day activities. Emphasis and monitoring of human performance results will continue to ensure an improving trend.

Attachment 1 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 avoid further violations, and the date of full compliance.

There are no commitments contained in this submittal. If you have any questions, please contact Mr. Arthur Zaremba at (315) 349-6365.

Very truly yours, MICHAEL J. COLOMB

MJC:RAP:las cc: Next page

9708060240 970730 PDR ADOCK 05000333 G PDR STATE OF NEW YORK COUNTY OF OSWEGO Subscribed and sworn to before me this <u>30</u> day of <u>July</u>, 1997.

Notary Public



NANCY B. CZEROW Notary Public, State of New York Qualified in Oswego County #4884611 Commission Expires 1-26-99 Regional Administrator U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

Office of the Resident Inspector U.S. Nuclear Regulatory Commission P.O. Box 136 Lycoming, New York 13093

Ms. K. Cotton, Acting Project Manager Project Directorate I-1 Division of Reactor Projects-I/II U.S. Nuclear Regulatory Commission Mail Stop 14 B2 Washington, DC 20555

Attachments:

Reply to Notice of Violation

# Violation

Technical Specification 6.8(A)2 requires that written procedures and administrative policies shall be established, implemented and maintained that are recommended in Appendix A of Regulatory Guide 1.33, November 1972. Appendix A of Regulatory Guide 1.33 requires operating procedures governing the control rod drive system and administrative procedures for safe operation. Operations Surveillance Test Procedure (ST-20C) governs testing to verify control rod drive system operability; paragraph 8.1.15, in particular, governs the performance of a control rod coupling integrity check. NYPA Administration Procedure (AP)-12.03, Administration of Operations, Revision 9, provides direction to plant personnel concerning general practices and philosophy for safety operations. Paragraph 7.2 requires that self-checking shall be practiced when operating plant equipment and paragraph 8.17, Reactivity Management, requires independent verification of correct control rod selection and motion.

Contrary to the above, on March 3, 1997, ST-20C was not followed in that a control rod that was not fully withdrawn to position 48 was selected for movement and the shift manager's permission was not obtained prior the performance of the evolution. In addition, self-checking and independent verification of correct control rod selection and motion was not accomplished during this control rod manipulation, resulting in a mispositioned control rod. The consequence of this error was an unplanned, but modest reactivity addition.

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

## Admission Or Denial Of The Alleged Violation

The Authority agrees with this violation.

#### **Reasons for Violation**

The cause of this violation was personnel error. A team root cause analysis of this event identified the following human performance problems:

## Work Practices - Self-Checking

When the RO initiated control rod movement, he failed to monitor available indications that would have immediately told him unexpected rod movement was taking place. Self-checking was not applied to verify rod selection and ensure the expected response. Rod motion was terminated on the receipt of the rod block, a design feature, as opposed to being recognized and terminated by the RO. In addition, a second 'qualified' individual was not present to assist in monitoring indications to detect rod motion (were it to occur) contrary to the expectations of AP-12.03.

### Work Practices - Document Use

The RO did not refer to the coupling check surveillance procedure and selected a control rod for the coupling check that was not fully withdrawn as he intended. The CRS and the RO considered a second verification of the selected control rod required by administrative procedure AP-12.03, Administration of Operations, was not required because actual rod motion was not anticipated.

#### Supervisory Methods

The Control Room Supervisor (CRS) granted permission to perform an unplanned, unscheduled evolution without notifying the Shift Manager (SM). The CRS did not recognize that a control rod coupling check could result in control rod movement and associated reactivity changes. As a result of not recognizing potential adverse consequences of performing this task, the CRS direction to the Reactor Operator (RO) was informal and did not adequately communicate job performance and self-checking standards.

### Managerial Methods

 Management expectations prohibiting plant equipment manipulations solely for training was not clearly communicated. The absence of a clearly defined policy allowed this evolution to proceed without an adequate assessment of risks and consequences because it was an unscheduled, unplanned task.

## Habit Intrusion

 The CRS and RO were not focused on the task, they viewed the task as easy to perform. The individuals involved had actually performed or observed many coupling checks in the past during surveillance testing. The RO did not self-check rod selection and focused his attention, entirely on control rod drive (CRD) system hydraulic parameters and explanation of system response to the trainee.

## **Corrective Actions That Have Been Taken**

- The improperly withdrawn control rod was restored to its original location (position 22).
- The CRS and RO were removed from licensed responsibilities and disciplined in accordance with Human Resources policies. Fitness for Duty for cause testing was conducted on the RO with negative results. Both individuals were placed in a remedial training program. The CRS has been successfully remediated and returned to licensed duties.

Immediately after the event, the Operations Manager suspended reactivity manipulations for license candidates and conducted standdown briefings for all Operations personnel before their next operating shift to communicate the following:

- \* A clear definition that any manipulation of the rod movement control switch is a control rod manipulation and a reactivity manipulation regardless of the circumstances.
- \* Reinforced the special nature of any reactivity manipulation as requiring the full concentration of the control room staff.
- \* Defined the condition under which control rod manipulation could be performed and by whose authority (i.e., Shift Manager).
- Established that plant equipment status changes for training purposes is not permitted unless planned, scheduled, and properly assessed for plant risks.
- \* Emphasized the responsibility of SRO's and RO's to question and challenge all activities, even those that appear uncomplicated and reinforced expectations for procedure use, self-checking, reactor safety, and communication.
- AP-12.03 has been revised to identify the critical responsibilities and authorities associated with reactivity control and plant configuration control that are to be implemented in a consistent manner shift to shift. It has also been revised to formalize the expectations for equipment manipulations performed for training.
- The Operations Department implemented a peer check policy to improve individual focus on control room panel manipulation. This type of policy has been successful at other utilities in helping prevent personnel errors.
- The Operations Manager conducted training on lessons learned from 14 industry events that emphasized the importance of: supervisory oversight in the control room; procedure use; teamwork; operating practices; and reactivity management. All operators and operations training instructors attended.

# **Results Achieved**

Management oversight during scheduled plant power reductions have shown that our Operations personnel are performing these evolutions in the proper manner with the proper respect and formality required for reactivity manipulations. Management observations and oversight of other reactivity manipulations required for scheduled maintenance or core management have also confirmed that these manipulations are being conducted in a manner which meets management expectations. These observations have been conducted in the Control Room and plant simulator.

# Corrective Actions To Be Taken

Plant management has implemented and promulgated expectations in the area of Control Room operations with additional emphasis on reactivity manipulations. Management will continue to provide the oversight needed to reinforce that reactor safety is a site and individual culture that must be personalized in our day-to-day activities. Operator performance continues to be monitored and coached both on shift and in training.

Operations staff meetings are being conducted every two weeks and are normally attended by SRO's from 3 or 4 of the six operating shifts. These meetings are providing an excellent forum for discussing department operating standards. These meetings in the future will provide a continuing mechanism for reinforcing JAF operating philosophies, including the need for a questioning attitude.

Management observations and assessments will continue to be conducted to ensure continued improvement in Control Room formality and questioning attitude.

## Date When Full Compliance Will Be Achieved

Full compliance was achieved upon restoration of the control rod to its original location at position 22 on March 3, 1997.