

May 23, 1997

Mr. Michael J. Colomb  
Plant Manager  
New York Power Authority  
James A. FitzPatrick Nuclear Power Plant  
Post Office Box 41  
Lycoming, NY 13093

Dear Mr. Colomb:

Subject: **NRC Inspection Report No. 50-333/96-08 and Notice of Violation**

This letter refers to your March 7, 1997 correspondence, in response to our January 30, 1997 letter.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,



John F. Rogge, Chief  
Projects Branch 2  
Division of Reactor Projects

Docket No. 50-333

cc:

C. Rappleyea, Chairman and Chief Executive Officer  
R. Schoenberger, President and Chief Operating Officer  
J. Knubel, Chief Nuclear Officer and Senior Vice President  
H. P. Salmon, Jr., Vice President of Nuclear Operations  
W. Josiger, Vice President - Engineering and Project Management  
J. Kelly, Director - Regulatory Affairs and Special Projects  
T. Dougherty, Vice President - Nuclear Engineering  
R. Deasy, Vice President - Appraisal and Compliance Services  
R. Patch, Director - Quality Assurance  
G. Goldstein, Assistant General Counsel  
C. Faison, Director, Nuclear Licensing  
K. Peters, Licensing Manager  
T. Morra, Executive Chair, Four County Nuclear Safety Committee



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cc w/copy of Licensee's Response Letter:

Supervisor, Town of Scriba

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P. Eddy, Director, Electric Division, Department of Public Service, State  
of New York

G. T. Goering, Consultant, New York Power Authority

J. E. Gagliardo, Consultant, New York Power Authority

E. S. Beckjord, Consultant, New York Power Authority

F. William Valentino, President, New York State Energy Research  
and Development Authority

J. Spath, Program Director, New York State Energy Research  
and Development Authority

Distribution w/copy of Licensee's Response Letter:

- D. Screnci, PAO
- W. Dean, OEDO (WMD)
- S. Bajwa, NRR
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- D. Hood, NRR
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- R. Correia, NRR
- F. Talbot, NRR
- L. Cunningham, NRR
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Nuclear Power Plant  
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Michael J. Colomb  
Site Executive Officer

March 7, 1997  
JAFFP-97-0085

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 50-333/96-08

Reference: JPN-97-005, "Response to Request for Additional Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Bases Information", dated February 07, 1997.

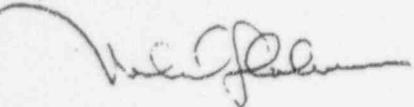
Gentlemen:

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 January 30, 1997. Your letter refers to the results of the integrated inspection conducted from November 17, 1996 through January 04, 1997 at the James A. FitzPatrick Nuclear Power Plant.

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.

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

Very truly yours,

  
MICHAEL J. COLOMB

STATE OF NEW YORK  
COUNTY OF OSWEGO  
Subscribed and sworn to before me  
this 7 day of March, 1997

  
NOTARY PUBLIC

MJC:GB:las  
cc: next page

**NANCY B. CZEROW**  
Notary Public, State of New York  
Qualified in Oswego County #4884611  
Commission Expires 1-26-99

9703142106

cc: Regional Administrator  
U.S. Nuclear Regulatory Commission  
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Lycoming, NY 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:

1. Reply to Notice of Violation

**Attachment 1**  
**Reply to Notice of Violation 96-08**

**Violation**

*10 CFR 50.59, "Changes, tests, and experiments," permits licensees to make changes to the facility, as described in the Safety Analysis Report, without prior Commission approval, provided that the proposed changes do not involve a change in the technical specifications or involve an unreviewed safety question. Records of these changes must include a safety evaluation which provides the bases for the determination that the change does not involve an unreviewed safety question.*

*Contrary to the above, on November 7, 1995, all four residual heat removal (RHR) system pumps were operated in the suppression pool cooling mode for ten hours, prior to performance of and documentation of a safety evaluation to provide the bases for the determination that the operation did not involve an unreviewed safety question.*

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

**Admission Or Denial Of The Alleged Violation**

The Authority agrees with this violation.

**Reasons For The Violation**

The cause for this violation was less than adequate supervisory methods. NYPA personnel did not consider the ten hour RHR pump run, conducted on 11/07/95, to be a special test or a procedure change which would require a 10 CFR 50.59 nuclear safety evaluation. The ten hour simultaneous run of both trains of RHR was being conducted to assure adequate suppression pool cleanliness and in response to NRC Bulletin 95-02, "Unexpected clogging of Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode". The system configuration used was the same as the torus cooling mode, although the intent of the operation was not to remove heat from the suppression pool inventory (torus cooling). The torus cooling mode of RHR is consistent with JAF Operating Procedures (OP-13, "Residual Heat Removal System" and OP-13B, "Containment Cooling"). Because the configuration was the same, and because this mode was addressed in Operating Procedures, the 10 CFR 50.59 safety evaluation process was not invoked.

It should be noted that several considerations were reviewed and evaluated by personnel prior to performing the ten hour RHR pump run. These considerations provided management the level of assurance that the evolution/exercise was being conducted in compliance with plant operating procedure guidelines. The considerations were documented following completion of the run, however, these considerations should have been the basis for a formal 10 CFR 50.59 evaluation prior to the operation. System and design parameters reviewed for potential impact on test performance were:

- The Design Basis Document (DBD) for the RHR System and Administrative Procedure AP-19.08, "Infrequently Performed Tests or Evolutions". Based on design basis information, personnel determined that operation with up to four RHR pumps in service was an evolution that did not constitute a special test.

**Attachment 1**  
**Reply to Notice of Violation 96-08**

**Reasons For The Violation** (cont.)

- The Final Safety Analysis Report (FSAR) as it relates to the suppression pool cooling mode of the RHR System. An FSAR power generation objective of the RHR System is to provide the means to cool the suppression chamber. There were no changes made to operating procedures described in the FSAR to support the RHR run. Based on this information and a search of the FSAR, personnel concluded that there was not a restriction on the number of RHR pumps that can be run in the suppression pool cooling mode.
- Redundancy was considered with respect to operating four RHR pumps in the suppression pool cooling mode. It was concluded that operating a single train of RHR (two pumps) in suppression pool cooling with the other train of RHR inoperable, would be more limiting, from a pump availability standpoint, than operating both trains of RHR (four pumps) in suppression pool cooling mode.
- The Low Pressure Coolant Injection (LPCI) mode of RHR was considered by personnel to determine if operating in the suppression pool cooling mode could inhibit LPCI injection upon receipt of a Loss Of Coolant Accident (LOCA) signal. It was determined that the LPCI initiation circuits would realign the RHR System, automatically closing suppression pool cooling valves, if open, and initiating LPCI.
- A review of industry experiences showed that various licensees had operated multiple RHR pumps for extended periods of time (greater than six hours) in the suppression pool cooling mode, during normal plant operation.
- The suppression pool had been cleaned four times since 1988, including vacuuming and inspection of the sixteen torus bays along with the ECCS suction strainer inspection during the 1995 Refuel Outage. This provided a high degree of confidence that foreign materials did not exist in the torus which could have caused ECCS suction strainer clogging.

**Corrective Actions That Have Been Taken**

- Following the successful completion of the ten hour RHR pump run in the suppression pool cooling mode, the Authority performed a re-evaluation of the considerations taken prior to the run. This re-evaluation included the completion of a 10 CFR 50.59 safety evaluation (JAF-SE-95-063, "Operation of Four RHR Pumps in Torus Cooling Flow Mode"). The safety evaluation concluded that the operation of the system as directed by existing plant operating procedures was consistent with the license and design basis and did not pose an unreviewed safety question.
- Operating Procedures OP-13 and OP-13B have been revised to include precaution statements regarding the potential for water hammer and equipment damage when starting an RHR pump in an RHR loop that is not full.
- Managers and supervisors have been counseled regarding the need to utilize the 10 CFR 50.59 process for any evolution different than that intended in a procedure and/or evolutions described as tests.

**Attachment 1**  
**Reply to Notice of Violation 96-08**

**Corrective Actions That have Been Taken** (cont.)

- Reviews of corrective measures implemented at JAF as a result of findings in NUREG-0927, "Evaluation of Water Hammer Occurrences in Nuclear Power Plants" (i.e.; void detection, keepfull systems, venting, operator training, and operating and maintenance procedures) were completed. Included in these actions was an RHR keepfull system modification designed to ensure RHR discharge piping remained full. The keepfull system is supplied with safety related power and will continue to run when the RHR System is operating.
- A review of JAF's evaluation of NRC Notice 87-10, "Potential for Water Hammer During Restart of Residual Heat Removal Pumps" was performed. Contained in this evaluation was a review of design assumptions including both (1) Loss of Offsite Power (LOOP) while operating in the suppression pool cooling mode, and (2) a Loss of Coolant Accident (LOCA) concurrent with a LOOP, while operating in the suppression pool cooling mode. Under scenario (2), it was determined that RHR System would be susceptible to water hammer during pump restart. This concern was then evaluated through probabilistic risk assessment (PRA). This evaluation concluded that the mean frequencies of the loss of containment heat removal and LPCI due to water hammer induced events were well bounded by the JAF Individual Plant Examination (IPE). The above conclusions were based on the condition that the ten hour RHR run represented an insignificant portion of an operating cycle, the life of the plant and the period of time the RHR System is otherwise operated in suppression pool cooling mode.

**Corrective Actions Taken To Understand The Broader Implications Of The Violation**

- In September 1996, a self-assessment team conducted a week-long review of the JAF licensing basis and the Authority's programs for maintaining them. The purpose of the self-assessment was to identify and/or correct programmatic elements that could lead to licensing basis discrepancies. The team applied the methodology outlined in Draft NEI 96-05, "Guidelines for Assessing Programs for Maintaining the Licensing Basis," Revision D, dated July 12, 1996. Included in the assessment was a review of the 10 CFR 50.59 nuclear safety evaluation processes. Results of this assessment identified no significant programmatic deficiencies.
- JAF recently submitted their response (Reference) to an NRC request for additional information pursuant to 10 CFR 50.54(f) regarding adequacy and availability of design bases information. Contained in this response are descriptions of current processes, ongoing initiatives and past programs that affect the design bases, the configuration control of the facility, and the engineering processes used. The Authority is confident that adherence to the processes described in this letter provide reasonable assurance that design bases requirements are being properly translated into design specifications, operating, maintenance and testing procedures, and that the configuration of systems are consistent with the design bases.

**Attachment 1**  
**Reply to Notice of Violation 96-08**

**Results Achieved**

- A heightened awareness and increased sensitivity to potential 10 CFR 50.59 issues involving potential unreviewed safety questions for plant activities has been achieved at JAF as a result of the corrective actions.

**Corrective Actions To Be Taken**

None

**Date When Full Compliance Will Be Achieved**

Full compliance was achieved on December 15, 1995 following completion of 10 CFR 50.59 nuclear safety evaluation JAF-SE-95-063, "Operation of Four RHR Pumps in Torus Cooling Flow Mode".