September 22, 1999

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

SUBJECT: NRC INTEGRATED INSPECTION REPORT 50-333/99-07

Dear Mr. Colomb:

On August 28, 1999, the NRC completed an inspection at the James A. FitzPatrick Nuclear Power Plant. The results of this inspection were discussed on September 8, 1999, with you and other members of your staff. The enclosed report presents the results of that inspection.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission=s rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. Negative finding were assessed using the significance determination process; all findings either screened out of the process or were determined to be within the licensee response band (Green).

The NRC identified one issue of low safety significance that has been entered into your corrective action program and is discussed in the summary of findings and in the body of the attached inspection report. The issue, failure to adequately establish the RHR low flow switch setpoints, was also determined to involve a violation of NRC requirements, but because of the low safety significance the violation is not cited. If you contest this noncited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with a copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the FitzPatrick facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room. Should you have any questions regarding this report, please contact me at 610-337-5146.

Sincerely,

Original Signed by:

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

Docket No. 50-333

Enclosure: Inspection Report 50-333/99-07

cc w/encl:
C. D. Rappleyea, Chairman and Chief Executive Officer
E. Zeltmann, President and Chief Operating Officer
R. Hiney, Executive Vice President for Project Operations
J. Knubel, Chief Nuclear Officer and Senior Vice President
H. P. Salmon, Jr., Vice President of Engineering
W. Josiger, Vice President - Engineering and Project Management
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R. Patch, Director - Quality Assurance
G. C. Goldstein, Assistant General Counsel
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S. Griffin, Chenango North Energy Awareness Group
T. Ellis
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C. Gagne
L. Downing
H. Hawkins, Syracuse Green Party
E. Smeloff, PACE Energy Project

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-333
License No.:	DPR-59
Report No.:	99-07
Licensee:	New York Power Authority
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	Post Office Box 41 Scriba, New York 13093
Dates:	July 18 to August 28, 1999
Inspectors:	R. A. Rasmussen, Senior Resident Inspector R. A. Skokowski, Resident Inspector T. J. Kenny, Sr. Operations Engineer (August 2 - 6, 1999) T. A. Moslak, Radiation Specialist (August 23-27, 1999)
Approved by:	J. F. Rogge, Chief Projects Branch 2 Division of Reactor Projects

SUMMARY OF FINDINGS

James A. FitzPatrick Nuclear Power Plant
NRC Inspection Report 50-333/99-07

The report covered a six week period of resident inspection, and the results of announced inspections by a regional radiation safety inspector and a regional engineering inspector.

Inspection findings were assessed according to potential risk significance, and were assigned colors of GREEN, WHITE, YELLOW, or RED. GREEN findings are indicative of issues that, while not necessarily desirable, represent little risk to safety. WHITE findings would indicate issues with some increased risk to safety, and which may require additional NRC inspections. YELLOW findings would be indicative of more serious issues with higher potential risk to safe performance and would require the NRC to take additional actions. RED findings represent an unacceptable loss of margin to safety and would result in the NRC taking significant actions that could include ordering the plant shut down. The findings, considered in total with other inspection findings and performance indicators, will be used to determine overall plant performance.

Mitigating Systems

$ Green. The inspectors identified that instrument uncertainties were not adequately incorporated into the residual heat removal system minium flow valve setpoint analysis. Subsequently, the licencee identified additional discrepancies, which, in total, caused the setpoint to be inadequate to ensure pump protection during low flow conditions. This issue was considered green in the significance determination process because the loss of RHR pump low flow protection was only credible during certain loss-of-coolant-accident conditions, which have a low probability of occurring. Nonetheless, the failure to adequately establish the RHR low flow switch setpoints was a violation of NRC requirements. The inspectors also noted that ineffective communications between the engineering and operations departments resulted in the shift manger using incorrect information as part of the bases for initially justifying system operability. **(NCV 50-333/99-07-01)** (Section 1R15)

Other Activities

$ None. The inspectors reviewed performance indicator (PI) data submitted by NYPA in the area of safety system unavailability. The inspectors reviewed data for emergency AC power systems, and the residual heat removal system. The data reviewed represented a sampling of records form July 1, 1998 through June 30, 1999. There were no findings identified and documented during this inspection.

Report Details

SUMMARY OF PLANT STATUS

The inspection period began as the unit returned to full power following a shutdown to repair a cracked feedwater system drain line. The unit remained at full power for the remainder of the period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R03 Emergent Work

a. Inspection Scope

The inspectors reviewed the licensee=s actions associated with leak repairs to feedwater system piping, repairs to the reactor core isolation system (RCIC) turbine steam admission valve, and the evaluation of noisy reactor protection system relays.

3. Observations and Findings

There were no findings identified and documented during these inspections.

1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed partial system walkdowns of the reactor core isolation cooling (RCIC) system and the emergency diesel generator system.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R05 Fire Protection

a. Inspection Scope

The inspectors toured the reactor building, the emergency diesel generator rooms, the emergency service water pump rooms, and fire pump rooms.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R09 Inservice Testing

a. Inspection Scope

The inspectors observed inservice testing of the reactor core isolation cooling pump, and core spray pumps.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R12 Maintenance Rule (MR) Implementation

.1 Implementation

a. Inspection Scope

The inspectors assessed the licensee=s implementation of the Maintenance Rule, Title 10 of the Code of Federal Regulations Part 50.65 (10 CFR 50.65), for deficiencies with the steam condensing mode of the residual heat removal system, failures of a reactor core isolation cooling containment isolation valve, and for a failure of a fire system pump.

b. Observations and Findings

There were no findings identified and documented during these inspections.

.2 Periodic Maintenance Rule Evaluation

a. Inspection Scope

The inspector reviewed MR APeriodic Assessment for FitzPatrick NNP 10/95 - 10/97 (10CFR50.65(a)(3))@, and completed licensee documents that recommended actions for improved program effectiveness. The inspector also reviewed licensee actions for the operation and maintenance of DC electrical distribution systems, AC electrical distribution systems and diesel generator systems to verify: Balancing reliability and unavailability of MR systems, structures, and components (SSCs) in accordance with the MR; system goals and monitoring, feedback of self and industry operating experience and preventive maintenance activities for 10 CFR 50.65(a)(1) in accordance with the MR; and licensee evaluation of functional failures, maintenance preventable functional failures and repeat maintenance preventable functional failures for adjustments to systems acceptable under 10 CFR 50.65(a)(2) of the MR. The inspector also conducted interviews with licensee staff and management. The above activities were to verify if the scope of the MR was being conducted in a manner to ensure reliable, safe operation of the plant and plant equipment.

b. Observations and Findings

Periodic Evaluation

There were no findings identified and documented during these inspections.

Balancing Reliability and Unavailability

There were no findings identified and documented during these inspections.

10 CFR 50.65(a)(1) Activities

There were no findings identified and documented during these inspections.

10 CFR 50.65(a)(2) Activities

There were no findings identified and documented during these inspections.

1R13 Maintenance Work Prioritization

a. Inspection Scope

The inspectors reviewed maintenance work prioritization associated with NYPA=s preparations for a forced shutdown. The forced shutdown, on July 18, 1999, was required to repair a cracked feed system drain line. The inspectors also reviewed issues associated with work on the 115 KV system electrical transformer and for activities with an emergency diesel generator inoperable.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R15 Operability Evaluations

.1 RHR Minimum Flow Setpoints

a. Inspection Scope

The inspectors assessed the licensee=s operability determinations following the identification of residual heat removal (RHR) system minium flow value actuation setpoint discrepancies.

b. Observations and Findings

The inspectors identified that instrument uncertainties were not adequately incorporated into the residual heat removal system minium flow valve setpoint analysis. Subsequently, the licencee identified additional discrepancies, which, in total, caused the setpoint to be inadequate to ensure pump protection during low flow conditions. This

issue was considered green in the significance determination process because the loss of RHR pump low flow protection was only credible during certain loss-of-coolant-accident conditions, which have a low probability of occurring. Nonetheless, the failure to adequately establish the RHR low flow switch setpoints was a violation of NRC requirements. The inspectors also noted that ineffective communications between the engineering and operations departments resulted in the shift manger (SM) using incorrect information as part of the bases for initially justifying system operability.

The RHR low flow switches cause the minimum flow bypass valves to open, which protect the pumps from operating in low flow conditions. The minimum flow bypass valves are normally open and close when flow is increased above the setpoint. The minimum flow valves must reopen if flow is subsequently reduced below the minimum setpoint.

In 1973, NYPA replaced the RHR low flow switches with switches having a wider range, however, this change was not reflected in the Final Safety Analysis Report (FSAR). Following the identification of the error within the FSAR, NYPA completed an evaluation of the installed equipment. This evaluation was documented in an April 1999 safety evaluation (SE 99-08). The inspectors reviewed the safety evaluation and identified that instrument inaccuracies were not incorporated in the setpoint. Subsequently, NYPA identified additional discrepancies with the setpoint calculation, and they issued Deviation/Event Report (DER) 99-1297. The impact of these discrepancies was that the minimum flow valves could not ensure pump protection during low flow conditions. The failure to adequately establish the RHR low flow switch setpoints was a violation of 10 CFR Part 50 Appendix B, Criterion III, ADesign Control.@ This issue was considered green in the significance determination process because the loss of RHR pump low flow protection was only credible during certain loss-of-coolant-accident conditions, which have a low probability of occurring. Therefore, this violation is being treated as a Non-Cited Violation (NCV), consistent with Appendix F of the NRC Enforcement Policy. This violation is in the licensee=s corrective action program as DER 99-01297. **(NVC 50-333/99-07-01)**

During their review of the DER, the inspectors questioned NYPA regarding the impact of the non-conservative minimum flow value setpoint on the operability of the RHR system. Discussions with the SM and other members of the operations department indicated that the RHR minimum flow valves were still capable of performing the intended function without operator actions. However, based on the inspectors= discussion with members of NYPA=s engineering department, operator actions would be required to provide low flow protection. Therefore, the inspectors concluded that the communication between the engineering and operations departments was ineffective, which resulted in the SM using incorrect information as part of the bases for initially justifying system operability. Subsequently, NYPA completed a formal evaluation justifying system operability. The inspectors reviewed this evaluation and found it to be technical sound and completed in accordance with industry guidance. Within the next week, NYPA changed the switch setpoint to ensure proper minimum flow valve operations.

.2 Other Operability Evaluations

a. Inspection Scope

The inspectors reviewed operability determinations associated with the following two other issues identified during the period.

1. Reduced flow through the reactor water cleanup bottom drain.

2. Identified errors in the high pressure coolant injection system minimum flow valve setpoint calculations.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed an operator work-around involving operation with a containment isolation valve blocked open, and operation of the residual heat removal system steam condensing mode with a leaking level transmitter, and motor operated valves which were de-energized for isolation.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed post maintenance testing performed following maintenance to the reactor core isolation cooling (RCIC) turbine steam admission valve, and following maintenance activities on the 115 KV transformers.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed surveillance testing of the A and C emergency diesel generator air start systems and fuel oil transfer systems, surveillance testing to demonstrate operability of the B and D emergency diesel generators, and the residual heat removal system loop A monthly operability test.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R23 Temporary Modifications

a. Inspection Scope

The inspectors reviewed temporary modifications associated with a leak repair to a feed system piping crack, and an alteration to the emergency diesel generator fire door.

b. Observations and Findings

There were no findings identified and documented during these inspections.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety [OS]

OS3 Radiation Monitoring Instrumentation

1. Inspection Scope

Calibration and maintenance records were reviewed for various portable survey instruments, contamination monitors, area radiation monitors, airborne radioactivity monitors/samplers, and electronic dosimetry. Technicians were observed calibrating two area radiation monitors and an airborne radioactivity monitor. Technicians were observed performing response tests and pre-use checks of various survey instruments, portal monitors, and laboratory equipment. The operability of various instrumentation was independently verified.

Relevant DERs and the licensee=s recent self-assessment (JRES-99-087) of the radiological monitoring program were reviewed.

2. Observations and Findings

There were no findings identified and documented during these inspections.

4. OTHER ACTIVITIES [OA]

4OA2 PI Verification

.1 Safety System Availability

a. Inspection Scope

The inspectors reviewed performance indicator (PI) data submitted by NYPA in the area of safety system unavailability. The inspectors reviewed data for emergency AC power systems, and the residual heat removal system. The data reviewed represented a sampling of records form July 1, 1998 through June 30, 1999.

b. Observations and Findings

There were no findings identified and documented during this inspection.

4OA4 Other

(Closed) LER 50-333/99-03-01: Safety Relief Valve Setpoint Drift. This LER was submitted to change a commitment due date for data evaluation. No further issues were identified and this LER is closed.

(Closed) URI 50-333/98-08-01: ECCS Availability During Reactor Draindown. This item was unresolved pending NRC review of NYPA=s compliance with technical specifications (TS) during the reactor cavity draining evolution. NRC review concluded that NYPA was in compliance with TS. However, the conditions established did not meet the current standards as described in the improved standard technical specifications. NYPA has submitted a proposed amendment for conversion to improved technical specifications, which should resolve this concern for the long term. This item is closed.

4OA5 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. M. Colomb and other members of licensee management on September 8, 1999. The licensee acknowledged the findings presented. No proprietary information was identified.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

M. Anderson	Supervisor, Radiological Support/Instrumentation
G. Bregg	Instrumentation & Control Manager
G. Brownell	Licensing Engineer
P. Brozenich	Operations Manager
B. Burnham	MR Coordinator
P. Chaldn	Public Affairs
M. Colomb	Site Executive Officer
R. Converse	General Manager Maintenance (Acting)
F. Edler	Assistant Maintenance Manager
J. Fitzgerald	Construction Services Manager
T. Herrman	Senior Mechanical Design Engineer
J. Hibbert	System Engineer
K. Hobbs	Health Physics - General Supervisor
B. Horning	Shift Manager
D. Kieper	General Manager - Maintenance
L. Leiter	System Engineer
D. Lindsey	Plant Manager
R. Locy	Training Manager
J. Lona	Component Engineer
A. McKeen	Radiological & Environmental Department Manager
E. Mulcahey	General Supervisor, Radiological Engineering
W. O=Malley	General Manager Operations
D. Ruddy	Director, Design Engineering
J. Stead	System Engineer
G. Tasick	Licensing Manager
D. Wallace	Director, Design Engineering
A. Zaremba	General Manager Support Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

NVC 50-333/99-07-01: Failure to Adequately Establish the RHR Low Flow Switch Setpoints

Closed

LER 50-333/99-03-01: Safety Relief Valve Setpoint Drift

URI 50-333/98-08-01: ECCS Availability During Reactor Draindown

LIST OF ACRONYMS USED

DER	Deficiency and Event Report
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
LER	Licensee Event Report
MR	Maintenance Rule
NCV	Non-Cited Violation
NNP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NYPA	New York Power Authority
PI	Performance Indicator
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RO	Reactor Operator
SE	Safety Evaluation
SM	Shift Manager
SSC	Systems, Structures and Components
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item