

August 12, 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 50-333/99-06

Dear Mr. Colomb:

On July 17, 1999, the NRC completed an inspection at the James A. FitzPatrick Nuclear Power Plant. The results of this inspection were discussed on July 22, 1999, with Mr. D. Lindsey and other members of your staff. The enclosed report presents the results of that inspection. You will note that the format of this report has changed from those previously issued. These changes are in accordance with the new NRC Reactor Inspection and Oversight Program which is currently being piloted at your facility.

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.

As part of the pilot inspection program, you submitted performance indicator data. The performance indicator data was in the green performance band, except the white performance threshold was exceeded for the  $\Delta$ Unplanned Power Changes per 7000 Critical Hours<sup>®</sup> indicator during the fourth quarter of 1998, and the first quarter of 1999. We also note that this indicator has subsequently returned to the green band with the submittal of the second quarter 1999 data.

This indicator was discussed with you during the periodic performance review meeting on June 3, 1999. We understand your actions to improve performance in this area included the implementation of an equipment reliability performance improvement plan. As noted by this indicator returning to the green band, we recognize that you are taking actions to improve performance in this area. Therefore, we have chosen to monitor your activities through the baseline inspection program.

The NRC identified five issues of low safety significance that have been entered into your corrective action program and are discussed in the summary of findings and in the body of the attached inspection report. Of the five issues, three were determined to involve violations of NRC requirements, but because of their low safety significance the violations are not cited. If you contest these noncited violations, 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.

Michael J. Colomb

2

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

Enclosure: Inspection Report 50-333/99-06

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  
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. C. Goldstein, Assistant General Counsel  
C. D. Faison, Director, Nuclear Licensing, NYPA  
G. Tasick, Licensing Manager  
T. Morra, Executive Chair, Four County Nuclear Safety Committee  
Supervisor, Town of Scriba  
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law  
P. Eddy, 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  
T. Judson, Syracuse Peace Council  
F. Elmer, Sierra Club  
S. Penn  
B. Brown  
S. Griffin, Chenango North Energy Awareness Group  
T. Ellis  
A. Slater, GRACE  
C. Gagne  
L. Downing  
H. Hawkins, Syracuse Green Party  
E. Smeloff

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION I**

Docket No.: 50-333

License No.: DPR-59

Report No.: 99-06

Licensee: New York Power Authority

Facility: James A. FitzPatrick Nuclear Power Plant

Location: Post Office Box 41  
Scriba, New York 13093

Dates: June 1 to July 17, 1999

Inspectors: R. A. Rasmussen, Senior Resident Inspector  
R. A. Skokowski, Resident Inspector  
B. S. Norris, Resident Inspector  
T. A. Moslak, Radiation Specialist  
E. H. Gray, Sr. Reactor Inspector  
L. S. Cheung, Reactor Inspector

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 50-333/99-06

The report covered a seven 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 failure of the circulating lube oil pump for the AA® emergency diesel generator (EDG), and a subsequent relay failure during the post-maintenance test were evaluated for overall plant risk. These equipment failures, which resulted in emergency diesel generator inoperability, were determined to be green using the significance determination process. (Section 1R03.1)
- \$ Green. Mechanics altered the design of a safety bus control power fuse block and did not document the non-conformance. The fuse block manufacturer required grease on the fuse block contacts to prevent a loss of function due to corrosion. This grease was omitted during the assembly process and the omission was not entered into the corrective action system for resolution. The failure of this fuse clip could have resulted in a loss of one of the two plant safety electrical supply busses. This issue was considered green in the significance determination process because it did not have an immediate impact on equipment performance. The failure to initiate a deficiency report was contrary to station procedures, which require a DER to be initiated for conditions adverse to quality, and was a violation of NRC requirements. **(NCV 50-333/99-06-01)** (Section 1R03.2)
- \$ Green. The inspectors identified approximately 25 minor discrepancies during a walkdown of the HPIC system. The large number of discrepancies co-existing on a single safety system represents a lapse in control of the system configuration and a violation of NRC requirements. However, because the discrepancies did not impact equipment operability the issue was a green finding in the significance determination process. Furthermore, the inspectors noted that it took the licensee an excessive amount of time, approximately two weeks, to enter most of

## Summary of Findings (cont'd)

the discrepancies into their corrective action program. **(NCV 50-333/99-06-02)**  
(Section 1R04)

### Barrier Integrity

- \$ Green. The inspectors identified a problem in a NYPA administrative procedure which resulted in operators not adhering to written operating procedures. This administrative procedure resulted in a misunderstanding by the licensed operators of the requirements of their licenses with regard to procedure compliance and of the requirements of 10CFR50.54(x). Operators not complying with plant procedures could have resulted in the inoperability of plant safety systems. This potential inoperability of plant safety systems was a green issue in the significance determination process. This issue was previously identified and was not adequately resolved by the licensee. The failure to take appropriate corrective actions following an NRC-identified deficiency is a violation of 10CFR50, Appendix B, Criterion XVI, ACorrective Action.® **(NCV 50-333/99-06-03)** (Section 1R11)

### Occupational Radiation Safety

- \$ Green. The actual collective dose for the control rod changeout, performed during the 1998 refueling outage, exceeded the projected dose by greater than 50%. The initial dose projection only addressed ancillary tasks and did not include the dose (approximately 5 person-rem) for removing and installing the CRDs. (Section 2OS2).

### Other Activities

- \$ None. On two occasions non-conforming conditions were not incorporated into the corrective action program. Additionally, corrective actions taken to correct the procedure compliance issue identified during the January hydrogen fire were inadequate. The specifics of these issues are discussed in sections 1R03.2, 1R04, and 1R11 of this report. As previously documented, two of these issues represented violations of NRC requirements. (Section 40A1)
- \$ None. Two discrepancies were identified through the review of licensee submitted performance indicator (PI) data. One error, identified by the NRC, was in not reporting a plant power change under the AUnplanned Power Changes per 7000 Critical Hours® PI. The other error, identified by NYPA, was in not reporting an occurrence under the AOccupational Exposure Control Effectiveness® PI. In each case, the error did not result in a change of indicator color and was corrected in a subsequent submittal. This item remains unresolved while the NRC evaluates errors in the PI data submittal. **(URI 50-333/99-06-04)** (Section 40A2)

## Report Details

### **SUMMARY OF PLANT STATUS**

The inspection period began with the unit at full power. On June 9, 1999, power was reduced to approximately 87 percent in preparation for a reactor shutdown due to a loss of control power to the 10500 safety bus. The control power problem was resolved within a few hours and the unit was returned to full power. On July 3, 1999, reactor power was reduced and the main generator was removed from service for a planned outage to repair an electrical connection on one of the transformer output 345 KV lines. Following the repairs, reactor power was increased to approximately 80 percent and then subsequently reduced to take the generator out of service again. This was required to repair a motor operated disconnect that failed to fully close following the previous repair outage. The reactor was returned to full power on July 5. On July 7, power was reduced to 65 percent due to the failure of a condensate system pump motor. The motor was replaced and the unit returned to full power on July 8th. The reactor was shutdown on July 13th due to a steam leak on a feedwater piping drain. The leak was repaired and the reactor restarted on July 17th. The reactor was at full power on July 18th.

#### **1. REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

##### 1R01 Adverse Weather

###### a. Inspection Scope

The inspectors reviewed conditions and actions being taken in response to periods of hot weather.

###### b. Observations and Findings

There were no findings identified and documented during this inspection.

##### 1R02 Changes to License Conditions

###### a. Inspection Scope

Nine nuclear safety evaluations from the past two years were reviewed to determine whether the associated design changes resulted in more than a minimal increase in risk without prior NRC approval. NYPA's identification and resolution of problems related to 10 CFR 50.59 safety evaluations were also examined.

#### **Safety Evaluations Reviewed**

##### A) For Mitigation Systems:

1. SE-98-40, Temporary Deenergization of Drywell Cooling MOV Power Supplies, Revision 0, dated August 17, 1998, and Revision 1, dated April 27, 1999;
2. SE-99-08, Update of FSAR to Reflect 1973 Replacement of LPCI Pump Low Flow Switches - Range Change, Revision 0, dated April 6, 1999;

3. SE-98-34, Emergency Service Water System Check Valve Replacement, Revision 0, dated September 15, 1998;
4. \*SE-98-13, Residual Heat Removal and Core Spray Suppression Pool Suction Strainer Replacement, Revision 2, dated November 24, 1998;
5. \*SE-98-42, HPCI & RCIC Post Modification Testing, Revision 0, dated September 21, 1998;
6. \*SE-98-25, High Pressure Coolant Injection and Reactor Core Cooling Suppression Pool Suction Strainer Replacement, Revision 1, dated November 24, 1998.
7. \*All three safety evaluations were related to a strainer modification.

B) For Barrier Integrity:

1. SE-98-51, Inboard Main Steam Isolation Valves NAMCO connectors, Revision 0, dated December 14, 1998;
2. SE-98-04, Replacement of PCIS Display on 90-4 Panel, Revision 1, dated April 1, 1998;
3. SE-99-01, Alternate Hydrogen Supply, Revision 1, dated February 24, 1999.

b. Observations and Findings

There were no findings identified and documented during this inspection.

1R03 Emergent Work

.1 Unplanned Emergency Diesel Generator Inoperability

a. Inspection Scope

The inspectors reviewed the licensee's actions associated with the failure of the AA@ emergency diesel generator (EDG) circulating lube oil pump and a subsequent reverse power trip of the EDG, which occurred during post-maintenance testing for the lube pump replacement.

2. Observations and Findings

The failure of the circulating lube oil pump for the AA@ emergency diesel generator (EDG), and a subsequent relay failure during the post-maintenance test were evaluated for overall plant risk. These equipment failures were determined to be green using the significance determination process.

On June 8, 1999, operators received an AEDG >A= engine trouble or shutdown@ annunciator in the control room. Upon investigation, operators found that the AA@ EDG circulating lube pump motor thermal overloads had tripped. The Shift Manager (SM) declared EDG AA@ inoperable, entered the applicable limiting condition for



operations (LCO), and tested the remaining EDG as required by technical specifications (TS).

Troubleshooting identified that the circulating lube oil pump motor was difficult to turn. As a result, the licensee replaced the motor. Subsequently, the licensee determined that the output shaft bearing was bad.

After verifying proper operation of the newly installed motor, the licensee tested the EDG AA@ operation in accordance with Surveillance Test Procedure ST-9BA, AEDG A and C Full Load Test and ESW [emergency service water] Pump Test.@ During the performance of this test, EDG AA@ tripped on reverse power. NYPA wrote a deviation/event report (DER) to address the problem, and initiated troubleshooting.

While troubleshooting, NYPA was able to recreate the problem, and subsequently identified the cause to be the over-travel of an auxiliary switch within the EDG AA@ and EDG AC@ tie breaker. As a result, the load balance portion of the EDG control circuit was disabled, this allowed sufficient circulating currents between EDG AA@ and AC@ to be developed, which caused the reverse power trip.

NYPA replaced the auxiliary relay and, on June 11, 1999, performed a satisfactory post-maintenance test of the relay and surveillance of the EDGs. Based on related problems with similar applications of this type of auxiliary switch, NYPA was evaluating long term corrective actions to either upgrade or eliminate these switches.

Prior to the reverse power trip of EDG AA,@ the last successful surveillance test of the EDG was May 27, 1999. Since there was the potential that the EDG was incapable of performing its function for at least one-half the time since the last successful test, the inspectors evaluated the risk associated with having the AA@ EDG inoperable during that time. The inspectors considered the other equipment unavailable during the period, and success paths for a loss-of offsite-power (LOOP) at the FitzPatrick Station as described in the licensee's Individual Plant Examination (IPE), and concluded that the increase in risk was minimal (Green).

## .2 Loose Fuse for Safety Bus Control Power

### a. Inspection Scope

The inspectors observed NYPA's response to an electrical problem which resulted in the inoperability of a safety bus.

### b. Observations and Findings

Mechanics altered the design of a safety bus control power fuse block and did not document the non-conformance. The fuse block manufacturer required grease on the fuse block contacts to prevent a loss of function due to corrosion. This grease

was omitted during the assembly process and the omission was not entered into the corrective action system for resolution. The failure of this fuse clip could have resulted in a loss of one of the two plant safety electrical supply busses. This issue was considered green in the significance determination process because it did not have an immediate impact on equipment performance.

On June 9, 1999, NYPA identified a loss of control power to the 10500 safety bus.

As a result of this problem, NYPA declared the safety bus inoperable and entered a limiting condition for operation (LCO) which required a plant shutdown within 24 hours. During troubleshooting of the loss of control power, NYPA discovered a loose fuse block assembly in the control power circuit to the 10500 safety bus. NYPA utilized information from the manufacturer of the fuse block to bend and align the electrical connections within the fuse block. Following the reinstallation, NYPA declared the safety bus operable and exited the shutdown LCO.

During the inspection, NYPA observed black grease on the contact areas of the fuse block assembly. With the support of maintenance engineering, NYPA elected to reassemble the fuse block assembly without grease. However, a deficiency report or other formal tracking mechanism was not utilized to track this potential non-conformance and operability issue.

Through follow up with the manufacturer, NYPA determined that grease was required to prevent long term corrosion of the contacts. However, a deficiency report had still not been generated to document the non-conformance. The inspectors questioned the lack of a deficiency report and were informed that the maintenance personnel intended to document the issue of the grease in the deficiency report associated with the fuse block failure. The inspectors considered this inappropriate because the grease issue was not directly tied to the failure evaluation which was the primary focus of the original deficiency report. Additionally, without an individual deficiency report, there was not a mechanism to trigger an operability evaluation for the current condition of the safety bus.

The inspectors brought the issue to the attention of NYPA management, and a deficiency report ( DER 99-997) was initiated to track the deficiency. NYPA determined the fuse block was still operable, but was working to evaluate an appropriate schedule for correcting the deficiency. 10CFR50, Appendix B, Criterion 16, ACorrective Action®, requires that measures shall be established to assure conditions adverse to quality are promptly identified and corrected. Administrative procedure AP-03.02, ADeviation and Event Reporting®, was developed by NYPA to meet this requirement. The failure to initiate a deficiency report was contrary to the guidance of administrative procedure AP-03.02, which requires a DER to be initiated for conditions adverse to quality, and was a violation of NRC requirements. This violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as DER 99-1238. **(NCV 50-333/99-06-01)**

### .3 Other Emergent Work

a. Inspection Scope

In addition to those items discussed above, the inspectors reviewed actions taken in response to a failure of the reactor core isolation cooling (RCIC) system steam isolation valve.

b. Observations and Findings

There were no findings identified and documented during this inspection.

1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed a complete system walkdown (visual inspection) of the high pressure coolant injection (HPCI) system. The inspectors also performed a partial system walkdown of the reactor core isolation cooling (RCIC) system.

b. Observations and Findings

The inspectors identified approximately 25 minor configuration discrepancies during a walkdown of the HPCI system. The large number of discrepancies co-existing on a single safety system represents a lapse in control of the system configuration and a violation of NRC requirements. However, because the discrepancies did not impact equipment operability the issue was a green finding in the significance determination process.

The inspectors performed a walkdown of the accessible portions of the HPCI system to compare plant drawings and Procedure OP-15, High Pressure Coolant Injection, Revision 47 with actual component positions and configuration. The inspectors identified approximately 25 minor discrepancies between the drawings, actual configuration and the equipment lineup provided in OP-15. These discrepancies were discussed with the system engineer and the Technical Services Manager, and included:

1. a drain valve specified by the drawing and procedure valve lineup as locked closed was found without a locking device;
2. the position of two lube oil filter bleed valves as specified by the drawing was different from the position specified by the procedure valve lineup;
3. vent and drain valve caps installed in the plant were not included in the procedure valve lineup;
4. a vent valve and a test valve specified by the drawings as capped were found without caps;
5. the description of the circuit breakers provided in Procedure OP-15 did not match the description provided on the breaker labels; and
6. other minor discrepancies between the installed configuration and the drawings.

The failure to adequately control the configuration of the HPCI system is a violation of Code of Federal Regulations (CFR) Title 10 Part 50 Appendix B, Criterion V, Instructions, Procedures, and Drawings. This violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as DERs 99-01099, 01171, 01186. (NCV 50-333/99-06-02)

The identified discrepancies were ultimately entered into the corrective action program, however the inspectors noted that it took the licensee an excessive amount of time, approximately two weeks, to enter most of the discrepancies. NYPA's Senior Management Team acknowledged that the timeliness failed to meet their expectations.

#### 1R05 Fire Protection

##### a. Inspection Scope

During tours of the reactor and turbine buildings, the inspectors performed assessments of fire protection issues.

##### b. Observations and Findings

There were no safety significant findings identified and documented during these inspections.

#### 1R09 Inservice Testing

##### a. Inspection Scope

The inspectors observed surveillance testing of the emergency service water system pumps.

##### b. Observations and Findings

There were no findings identified and documented during this inspection.

#### 1R11 Licensed Operator Requalification

##### 1. Inspection Scope

The inspectors observed a shift-crew of licensed operators during simulator training. The inspectors also observed the instructor critique of the crew's performance and reviewed the two scenarios.

##### 2. Observations and Findings

The inspectors identified a problem in a NYPA administrative procedure which resulted in operators not adhering to written operating procedures. This administrative procedure resulted in a misunderstanding by the licensed operators of the requirements of their licenses with regard to procedure compliance and of the requirements of 10CFR50.54(x). Operators not complying with plant procedures could have resulted in the inoperability of plant safety systems. This potential inoperability of plant safety systems was a green issue in the significance determination process. Furthermore, this issue was previously identified and was not adequately resolved by the licensee.

During a simulator scenario, the inspectors noted an instance where the CRS appeared to deviate from the EOP steps. Specifically, during implementation of EOP-5, ASecondary Containment Control,@ the CRS directed the main steam isolation valves (MSIVs) to be shut before the step was reached in EOP-5. The instructors did not question this action until challenged by the inspectors; the instructors stated that procedures allowed the operators to depart from procedures.

Based on similar concerns identified during the NRC special inspection of the January 1999 hydrogen fire, the inspectors reviewed the administrative procedures to see if the procedures had been corrected. (Reference NRC Inspection Report 50-333/99-02, Section 01.1)

1. AP-02.06, AProcedure Use and Adherence,@ Revision 11, continues to have two distinct steps which address deviating from procedures. Step 7.4 discusses the latitude allowed by 10CFR50.54(x) with respect to departing from license conditions or Technical Specifications in an emergency. But Step 7.3, which allows operations personnel to depart from procedures is also still in the procedure. As such, and as demonstrated in the simulator, operators stated that procedure compliance was not required.
2. AP-12.03, AAdministration of Operations,@ Revision 16, Step 8.12.1, states AProcedure compliance is mandatory,@
3. AP-12.03, Step 8.12.6, states AIf . . . a transient or accident sequence begins and entry conditions for EOPs are met, plant operators shall operate the plant according to the EOPs.

Following discussions with the FitzPatrick General Manager - Operations, NYPA planned to resolve the issue by revising the procedure to remove Step 7.3 and training the station personnel as to the intent and use of 10CFR50.54(x). The inspectors considered the proposed actions to be adequate. Nonetheless, the failure to appropriately revise AP-02.06 following an NRC-identified deficiency is a violation of 10CFR50, Appendix B, Criterion XVI, ACorrective Action.@ This violation is being treated as a Non-Cited Violation (NCV), consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's correction action program as DER 99-99-0118. **(NCV 50-333/99-06-03)**

## 1R12 Maintenance Rule 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 the reactor core isolation cooling (RCIC) system following a failure of the RCIC turbine steam supply outboard isolation on June 22, 1999, for the HPCI system as part of the system walkdown described in Section 1R04 of this report, and for the condensate system following the failure of a condensate system pump motor.

### b. Observations and Findings

There were no findings identified and documented during these inspections.

## 1R13 Maintenance Work Prioritization

### a. Inspection Scope

The inspectors reviewed maintenance work prioritization issues associated with NYPA's preparations for a forced outage. The forced outage was to repair an electrical connection from the output transformer to the 345kv transmission line.

### b. Observations and Findings

There were no findings identified and documented during this inspection.

## 1R14 Nonroutine Plant Evolutions

### a. Inspection Scope

The inspectors observed control room activities performed in response to an inoperable safety bus and an inoperable emergency diesel generator lube oil circulating pump.

### b. Observations and Findings

There were no findings identified and documented during these inspections.

## 1R15 Operability Evaluations

### a. Inspection Scope

The inspectors reviewed operability determinations associated with three issues identified during the period. The operability determinations reviewed involved:

EQ analyses for equipment within the drywell

the operability of an emergency diesel generator with a noisy circulating lube oil pump

operation with an inoperable containment isolation valve

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 manual actions required to maintain pressure control on the containment atmosphere dilution system nitrogen supply. The inspectors also reviewed the status of the HPCI system to assure no operator work-arounds were present.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed modification and test documentation associated with upgrades to the feedwater measurement system. This modification will allow more accurate measurement of feedwater system flow, which is a critical parameter used to determine reactor power. Review of this modification was incomplete due to emergent plant problems which prevented the testing and implementation of this modification. Testing associated with this modification required steady state power and fission product levels. NYPA was in the process of rescheduling this modification.

b. Observations and Findings

There were no findings identified and documented during this inspection.

1R19 Postmaintenance Testing



a. Inspection Scope

The inspectors reviewed post maintenance testing performed following replacement of the emergency diesel generator (EDG) circulating lube oil pump, the EDG control circuit relay, and the 10500 safety bus fuse clip troubleshooting.

b. Observations and Findings

There were no findings identified and documented during these inspections.

1R22 Surveillance Testinga. Inspection Scope

The inspectors reviewed surveillance testing of emergency diesel generators, the emergency service water system, and high pressure coolant injection.

b. Observations and Findings

There were no findings identified and documented during these inspections.

Cornerstone: Emergency Preparedness [EP]

1EP3 Emergency Response Organization Augmentationa. Inspection Scope

The inspectors reviewed contingency plans developed by NYPA due to a large music festival which was scheduled in the immediate vicinity of the emergency response facility. The music festival would have restricted access to the offsite response facility.

b. Observations and Findings

The inspectors concluded that the contingency plans were appropriate and that emergency response personnel were adequately appraised of the plans.

**2. RADIATION SAFETY**

Cornerstone: Occupational Radiation Safety [OS]

2OS1 Access Control To Radiologically Significant Areasa. Inspection Scope

The administrative and physical controls for controlling access to radiologically significant areas and limiting worker dose were inspected. The inspectors toured the Reactor Building, Turbine Building, and Radioactive Waste Processing Building. The inspectors also performed independent surveys in plant areas and for various plant systems including the alternate Decay Heat Removal system.

A sample of five Deviation/Event Reports (DER), involving activities in high radiation areas, were reviewed that addressed incidents which were below the threshold for a performance indicator occurrence.

b. Observations and Findings

There were no findings identified and documented during this inspection.

## 2OS2 ALARA Planning and Controls

### 1. Inspection Scope

ALARA performance was reviewed for radiologically significant activities performed during 1998 and the Significance Determination Process (SDP) was used to evaluate the collective exposure data. The effectiveness of source term reduction efforts was reviewed. Records were reviewed regarding exposure results for declared pregnant workers, maintenance of self contained breathing apparatus (SCBA), and the training of control room personnel associated with using SCBAs.

### 2. Observations and Findings

The actual collective dose for the control rod changeout, performed during the 1998 refueling outage, exceeded the projected dose by greater than 50%. The initial dose projection only addressed ancillary tasks and did not include the dose (approximately 5 person-rem) for removing and installing the CRDs.

For 1998, the collective exposure for activities performed during the operating cycle and outages was 357 person-rem. The resulting three (3) year rolling average collective dose of 268 person-rem was greater than the BWR industry average of 240 person-rem, in part, due to the dose accrued (87.9 person-rem) in replacing emergency core cooling system (ECCS) strainers.

The collective dose for various dose intensive jobs was compared to the projected dose and the results were evaluated using the Significance Determination Process (SDP). Included in this review were the torus modification project involving removal/installation of ECCS strainers, changeout of control rod drives (CRD), and activities performed by the Instrumentation & Control Department during 1998. Using the SDP, the dose accrued for CRD changeout (10.019 person-rem) represented a GREEN finding, in that, the actual dose exceeded the projected dose (4.800 person-rem) by more than 50%, the three year rolling average for FitzPatrick was greater than 240 person-rem, actual job dose was greater than 10 person-rem but less than 60 person-rem, and this finding represented a single occurrence meeting the SDP criteria. Shortcomings in accurately estimating job dosage for the CRD changeout resulted in part from a lack of a questioning attitude regarding the completeness of forecasted data. The initial dose projection only addressed ancillary tasks and did not include the dose (approximately 5 person-rem) for removing and installing the CRDs. The licensee initiated DER 99-01100 to resolve this discrepancy.

## 2OS4 Radiation Worker Performance

1. Inspection Scope

Jobs-in-progress were observed to evaluate the effectiveness of worker practices in keeping exposure as low as reasonably achievable (ALARA). Activities observed included, the transfer of spent resin to a storage container, the venting of the alternate Decay Heat Removal system in preparation for testing, removal of electrical connections from a solenoid operated valve, transfer of contaminated equipment from the refuel floor to the storage pit by overhead crane, and the removal of a nitrogen purge line from the traversing incore probe (TIP) machine.

2. Observations and Findings

There were no findings identified and documented during this inspection.

4. **OTHER ACTIVITIES [OA]**

Cross Cutting Elements

4OA1 Identification and Resolution of Problems

a. Inspection Scope

During the inspections documented in this report, the inspectors assessed the effectiveness of the licensee's programs for correcting and limiting non-compliance with NRC regulations.

b. Observations and Findings

On two occasions non-conforming conditions were not incorporated into the corrective action program. Additionally, corrective actions taken to correct the procedure compliance issue identified during the January hydrogen fire were inadequate. The specifics of these issues are discussed in Sections 1R03.2, 1R04, and 1R11 of this report. As previously documented, two of these issues represented violations of NRC requirements.

4OA2 PI Verification

.1 Performance Indicator Data Submittal

a. Inspection Scope

As part of the pilot inspection program, historical performance indicator data was submitted. The data was evaluated, discussed during a public meeting, and inspection requirements were determined.

b. Observations and Findings

The performance indicator data was in the green performance band, except a white performance threshold was exceeded for the AUnplanned Power Changes per 7000 Critical Hours® indicator during the fourth quarter of 1998, and the first quarter of 1999. We also note that this indicator has subsequently returned to the green band with the submittal of the second quarter 1999 data. This indicator was discussed during the periodic performance review meeting on June 3, 1999. Actions to improve performance in this area included the implementation of an equipment reliability performance improvement plan. As noted by this indicator returning to the green band, the NRC recognizes that actions are being taken to improve performance in this area. Therefore, the NRC has chosen to monitor activities through the baseline inspection program.

Detailed review of the performance indicator data was performed in two areas. The results of these detailed reviews are documented below. In each case, data submission errors were identified and corrected. The NRC is developing procedures to disposition inaccuracies when licensee data errors are identified. When the procedures are established these errors may receive further NRC review and consideration.

.2 Unplanned Power Changes per 7000 Critical Hours

a. Inspection Scope

The inspectors reviewed performance indicator (PI) data submitted by NYPA and performed a sampling inspection in the area of unplanned power changes per 7000 critical hours. The inspectors reviewed data for the previous year.

b. Observations and Findings

The NRC identified an unplanned power transient that was not included in the data submitted by NYPA. On July 8, 1998, power was reduced by 32 percent due to a problem during testing of a main steam isolation valve. The valve was reopened and power was returned to 100 percent the following shift. As a result of this finding, NYPA initiated a DER to document the occurrence and identify the cause of the error.

At the time of the initial performance indicator submittal, the unplanned transient performance indicator was white. This error, if properly reported, would not have resulted in a change of indicator status. NYPA reported a correction to the data in the June data submittal.

.3 Exposure Control

1. Inspection Scope:

The Occupational Exposure Control Effectiveness performance indicator (PI) data was reviewed for the past three years.

2. Observation and Findings:

In the May 1999 PI report, the licensee initially identified four (4) incidents occurring within the past twelve (12) quarters that represented either 1) a failure to secure an area against unauthorized access or 2) a failure to provide a means of personnel dose monitoring or control as required by technical specifications. Subsequent to report submittal, the licensee identified and evaluated four (4) additional occurrences that could be potentially reportable. Following an evaluation of the historical records and interviews with cognizant individuals, the licensee determined that one of the four occurrences was reportable in that sufficient evidence was not available to conclude otherwise. Accordingly, the licensee the July 1999 PI report corrected the information; changing the number of PI occurrences from four (4) to five (5), with the performance rating remaining in the GREEN (normal regulatory response) band.

40A4 Other

(Closed) LER 50-333/99-04: Reactor Core Isolation Cooling (RCIC) Instrumentation Inoperable Due to Incomplete Protective Tag Restoration. This LER was reviewed in NRC inspection report 50-333/99-04 and NCV 50-333/99-04-01 was issued. No further issues were identified and this LER is closed.

40A5 Meetings

The inspectors presented the inspection results to Mr. D. Lindsey and other members of licensee management on July 22, 1999. The licensee acknowledged the findings presented. No proprietary information was identified.

On June 3, 1999, the NRC conducted a meeting with the licensee to review plant performance. The meeting was held at the facility and was open for public observation.

On June 30, 1999, the NRC conducted a meeting with the public to discuss the new NRC inspection program being piloted at the FitzPatrick plant. Members of the public and media were in attendance.

## ATTACHMENT 1

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

M. Anderson	Respiratory Protection Supervisor
N. Avrakotos	Emergency Preparedness Coordinator
G. Bregg	Instrumentation & Control Manager
G. Brownell	Licensing Engineer
P. Brozenich	Operations Manager
M. Colomb	Site Executive Officer
R. Converse	General Manager Maintenance (Acting)
F. Edler	Assistant Maintenance Manager
J. Fitzgerald	Construction Services Manager
K. Hobbs	Health Physics - General Supervisor
D. Kieper	General Manager - Maintenance
D. Lindsey	Plant Manager
R. Locy	Training Manager
A. McKeen	Radiological and Environmental Department Supervisor
D. Morrison	ALARA Technician
W.O-Malley	General Manager, Operations
S. Pointon	Radiological Protection - Central Planning
K. Pushee	ALARA Supervisor
D. Ruddy	Director, Design Engineering
J. Solini	Senior Quality Assurance Engineer
G. Tasick	Licensing Manager
A. Zaremba	General Manager Support Services

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

None

Opened and Closed

NCV 50-333/99-06-01: The failure to initiate a deficiency report was contrary to station procedures, which require a DER to be initiated for conditions adverse to quality, and was a violation of NRC requirements.

NCV 50-333/99-06-02: The failure to adequately control the configuration of the HPCI system is a violation of Code of Federal Regulations (CFR) Title 10 Part 50 Appendix B, Criterion V, Instructions, Procedures, and Drawings.@

NCV 50-333/99-06-03: The failure to appropriately revise AP-02.06 following an NRC-identified deficiency is a violation of 10CFR50, Appendix B, Criterion XVI, Corrective Action.@

Closed

LER 50-333/99-04: Reactor Core Isolation Cooling (RCIC) Instrumentation Inoperable Due to Incomplete Protective Tag Restoration



**LIST OF ACRONYMS USED**

ACT	Action/Commitment Tracking
ALARA	As Low As Reasonably Achievable
AOP	Abnormal Operating Procedure
CRD	Control Rod Drive
CRS	Control Room Supervisor
DER	Deficiency and Event Report
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
ESF	Engineered Safety Feature
HPCI	High Pressure Coolant Injection
IPE	Individual Plant Examination
ITS	Improved Technical Specifications
LCO	Limiting Conditions for Operation
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LOOP	Loss of Offsite Power
LPCI	Low Pressure Coolant Injection
MG	Motor Generator
MSIV	Main Steam Isolation Valve
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
PLCO	Potential Limiting Conditions for Operation
QA	Quality Assurance
RCA	Radiologically Controlled Area
RCIC	Reactor Core Isolation Cooling
RES	Radiological and Environmental Services
RHR	Residual Heat Removal
RO	Reactor Operator
RP	Radiation Protection
RP&C	Radiological Protection and Chemistry
RTID	Radiological Technical Information Document
RWP	Radiation Work Permit
SCBA	Self Contained Breathing Apparatus
SDP	Significance Determination Process
SGT	Standby Gas Treatment
SM	Shift Manager
SRO	Senior Reactor Operator
STA	Shift Technical Advisor
TIP	Traversing Incore Probe
TS	Technical Specifications
TSP	Temporary Shielding Packages
UFSAR	Updated Final Safety Analysis Report
UPS	Uninterruptable Power Supply

