

July 18, 2000

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 05000333/2000-004

Dear Mr. Colomb:

On July 1, 2000, the NRC completed an inspection at the James A. FitzPatrick Nuclear Power Plant. The results of this inspection were discussed on July 13, 2000, 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.

The NRC identified four findings that were evaluated under the risk significance determination process and were determined to be of very low safety significance (Green). These findings 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. Furthermore, the four findings were determined to involve violations of NRC requirements, but because of their very low safety significance, the violations are non-cited.

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 and will be available on the NRC Public Electronic Reading Room (PERR) link at the NRC home page, <http://www.nrc.gov/NRC/ADAMS/index.html>. Should you have any questions regarding this report, please contact me at 610-337-5211.

Sincerely,

**/RA/**

Glenn W. Meyer, Chief  
Projects Branch 3  
Division of Reactor Projects

Docket No. 05000333  
Enclosure: Inspection Report 05000333/2000-004

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 05000333

License No.: DPR-59

Report No.: 2000-004

Licensee: Power Authority of the State of New York, trading as the New York Power Authority (NYPA)

Facility: James A. FitzPatrick Nuclear Power Plant

Location: Post Office Box 41  
Scriba, New York 13093

Dates: May 21, 2000 to July 1, 2000

Inspectors: R. A. Rasmussen, Senior Resident Inspector  
R. A. Skokowski, Resident Inspector  
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E. H. Gray, Sr. Reactor Inspector

Approved by: G. W. Meyer, Chief  
Projects Branch 3  
Division of Reactor Projects

## SUMMARY OF FINDINGS

James A. FitzPatrick Nuclear Power Plant  
NRC Inspection Report 05000333/2000-004

The report covered a six-week period of resident inspection. The report also covers an occupational radiation safety inspection and an inspection of the independent spent fuel storage installation project by regional specialist inspectors. The significance of issues is indicated by their color (Green, White, Yellow or Red) and was determined by the Significance Determination Process (SDP) in Inspection Manual Chapter 0609 (see Attachment 1).

### **Mitigating Systems**

Green. The operability determination performed to address an issue with the installation of the reactor core isolation cooling (RCIC) steam leakage detection system was not completed in a timely manner and lacked technical detail. This finding was determined to be Green (of very low safety significance) using the SDP because the steam leak detection system remained operable. The failure to complete the operability determination as required by station procedures was a non-cited violation of NRC requirements. (Section 1R15)

Green. The inspectors identified that NYPA had not performed an engineering analysis for the use of Belzona Metals on the seating surface of the residual heat removal service water (RHRSW) strainer isolation valves. The addition of Belzona Metals was considered a modification and as such required appropriate review and documentation. This issue screened out of the SDP as Green (of very low safety significance) because the evaluation of the Belzona Metals application was later completed prior to returning the RHRSW system to operable status and the application was ultimately found acceptable. The failure to evaluate the use of Belzona Metals prior to installation was a non-cited violation of NRC requirements. (Section 1R17)

Green. The retest documents associated with the RHRSW system varied significantly in quality and adequacy. Some of the retests were inadequate to test the functions of the components which were repaired and thus were considered violations of NRC requirements. The specific examples were evaluated using the SDP and collectively determined to be Green (of very low safety significance) because the identified examples were not considered likely to result in safety system inoperability. (Section 1R19)

### **Barrier Integrity**

Green. NYPA failed to provide an adequate acceptance criteria for the maximum acceptable torque needed to exercise the torus to drywell vacuum breakers in the associated quarterly surveillance test procedure. The SDP concluded that this finding was Green (of very low safety significance) because after determining the acceptable torque limits, all test results since the procedure was established, were found to be satisfactory. Nonetheless, the failure to provide adequate acceptance criteria is a non-cited violation of NRC requirements. (Section 1R22)

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## Report Details

### **SUMMARY OF PLANT STATUS**

The plant operated at power with no scrams or unplanned transients during the period.

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

##### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**

#### 1R04 Equipment Alignments

##### a. Inspection Scope

The inspectors performed the following partial system walkdowns:

- Emergency core cooling equipment, emergency diesel generators (EDGs) and offsite power while emergency service water (ESW) B was inoperable for planned maintenance.
- High pressure coolant injection (HPCI) while reactor core isolation cooling (RCIC) was inoperable for unplanned maintenance.

##### b. Issues and Findings

There were no findings identified.

#### 1R05 Fire Protection

##### a. Inspection Scope

The inspectors focused on fire protection equipment during tours of the relay room and the east and west crescent areas.

##### b. Issues and Findings

There were no findings identified.

#### 1R11 Licensed Operator Requalification

##### a. Inspection Scope

The inspectors observed a crew performing simulator training and attended the subsequent training critique.

##### b. Issues and Findings

There were no findings identified.

#### 1R12 Maintenance Rule (MR) Implementation

##### a. Inspection Scope

The inspectors reviewed the implementation of the Maintenance Rule (MR) as related to the following:

- Functional failure classification of the April 8, 2000, reactor water recirculation pump runback initiated by a fault in the reactor water clean up (RWCU) hold pump motor.
- Residual heat removal (RHR) and residual heat removal service water (RHRSW) system unavailability during a review of the associated performance indicator.
- Declining performance of the site air systems as evidenced by several periods of unplanned unavailability and component problems and failures.

##### b. Issues and Findings

There were no findings identified.

#### 1R13 Maintenance Risk Assessment and Emergent Work

##### a. Inspection Scope

The inspectors reviewed the maintenance risk assessment associated with the following activities:

- Planned maintenance on the 115kV offsite power line #4;
- Concurrent emergent work activities related to a failure of a service air compressor, an unexpected trip of a reactor protection system power supply, and the failure of an RHRSW pump discharge check valve during testing; and,
- Troubleshooting for the reactor protection system power supply trip and the associated corrective actions.

##### b. Issues and Findings

There were no findings identified.

#### 1R15 Operability Evaluations

##### a. Inspection Scope

The inspectors reviewed operability determinations associated with the following plant equipment challenges:

- Operability of A & B station batteries following the identification of discrepancies in the voltage drop and battery sizing calculations.
- Operability of the RCIC system steam leak detection system.

##### b. Observations and Findings



The operability determination performed to address an issue with the installation of the RCIC steam leakage detection system was not completed in a timely manner and lacked technical detail. This finding was determined to be Green (of very low safety significance) using the SDP because the steam leak detection system remained operable. The failure to complete the operability determination as required by station procedures was a non-cited violation of NRC requirements.

On May 22, 2000, NYPA made a one hour non-emergency report to the NRC, stating that an engineering review of the RCIC steam leak detection system identified a section of the RCIC steam pipe that may not be adequately monitored. This issue was also documented in the corrective action system (NYPA DER 00-1976) and the control room was notified to make an operability determination.

The RCIC steam leak detection system is part of the primary containment isolation system (PCIS). The steam leak detection system utilizes temperature detectors to sense an increase in area ambient temperature and isolate the steam line. The deficiency identified by NYPA was that the detectors for the RCIC steam line area were not placed as they would have expected them to be. Additionally, a 1979 plant modification which installed a concrete enclosure around the RCIC pump may have altered the effectiveness of the leak detection temperature sensors.

The shift manager declared the system operable, but required further engineering evaluation. Following NYPA administrative procedure (AP) 3.11, "Operability Determinations," engineering was given 24 hours to provide further analysis. However, the first draft of the operability determination was not issued until May 24. This response was considered untimely considering the technical specification requirements associated with this system. Specifically, operation of the reactor with the PCIS inoperable is permitted per NYPA technical specifications provided the affected steam line penetrations are isolated within one hour.

A significant consideration related to the steam leak detection system was the potential for a single steam leak to cause an automatic isolation of both the high pressure coolant injection (HPCI) and RCIC systems. This risk significant consideration was not addressed in the original operability determination as required by AP 3.11, "Operability Determinations," attachment 1, which required the effects on other systems be considered. On May, 25, 2000, NYPA issued a revision to the operability determination which addressed the inspectors' concerns. NYPA performed engineering evaluations and concluded that the RCIC temperature detectors were placed such that a steam leak from the RCIC steam line was not likely to cause an automatic isolation of the HPCI system. Although untimely, NYPA ultimately completed the operability evaluation which supported the original operability decision. Therefore, this finding was determined to be Green (of very low safety significance) using the SDP because the steam leak detection system remained operable. However, the failure to follow administrative procedures governing the timely conduct of operability determinations is a violation of NRC requirements. This violation is being treated as a Non-Cited Violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). The issues associated with this violation are in the NYPA corrective action system as DER 00-02054. **(NCV 05000333/2000-004-01)**

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed modification documentation and observed the modification installation for design change JD-99-095, "RHRSW Strainer Packing Modification." The RHRSW strainer is a duplex strainer on the discharge of the RHRSW pumps. The design change replaced the packing assemblies on the strainer selector valves. The modification also included rebuilding the valve seats with Belzona Metals and refurbishing the valve internals.

b. Observations and Findings

The inspectors identified that NYPA had not performed an engineering analysis for the use of Belzona Metals on the seating surface of the strainer isolation valves. The addition of Belzona Metals was considered a modification and as such required appropriate review and documentation. This issue screened out of the SDP in phase one as Green (of very low safety significance) because the evaluation of the Belzona Metals application was completed prior to returning the RHRSW system to operable status and was ultimately found acceptable. The failure to evaluate the use of Belzona Metals was a non-cited violation of NRC requirements.

During the June 2000 modification of the A RHRSW strainer, the inspectors observed the application of Belzona Metals on the seating surface of the strainer isolation valves. Belzona Metals is an epoxy type substance that can be used to repair corroded valve seats. However, through review of the modification documentation, the inspectors identified that engineering had not specified the exact Belzona Metals compound to use and that no engineering analysis had been performed for the use of Belzona Metals in this application.

NYPA performed an engineering evaluation and determined that Belzona 1311 was an acceptable material for use in this application. This issue screened out of the SDP in phase one as Green (of very low safety significance) because the evaluation of the Belzona Metals was completed prior to returning the RHRSW system to operable status and was ultimately found acceptable. However, 10CFR50, Appendix B, Criterion III, "Design Control," requires that design changes be controlled commensurate with those applied to the original design. Contrary to the above, NYPA changed the design of the RHRSW strainer by applying Belzona Metals to the strainer seating surface without a design review. This violation is being treated as a Non-Cited Violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). The issues associated with this violation are in the NYPA corrective action system as DER 00-02558. **(NCV 05000333/2000-004-02)**

1R19 Post Maintenance Testing

a. Inspection Scope

The inspector reviewed the following post maintenance testing:

- Retest of the EDG D following the completion of preventive maintenance (ST-9BB, “EDG B and D Full Load Test and ESW Pump Operability Test,” Revision 2);
- RCIC testing following a surveillance test failure (ST- 24J, “RCIC Flow Rate and Inservice Test,” Revision 24).
- The inspectors reviewed several post maintenance retest documents associated with the RHRSW strainer modification and related system work. The post work testing work requests (WRs) were:

98-01710-01	99-05737-09
98-03189-01	99-06908-02
99-05737-10	99-06908-05
00-01660-04	94-05262-11
99-06908-10	

b. Issues and Findings

The retest documents associated with the RHRSW system varied significantly in quality and adequacy. Some of the retests were inadequate to test the functions of the components which were repaired and thus were considered violations of NRC requirements. The specific examples were evaluated using the SDP and collectively were determined to be Green (of very low safety significance) because the identified examples were not considered likely to result in safety system inoperability. There were no findings associated with the retest of the EDG or RCIC.

The following retests associated with the RHRSW maintenance activities were considered inadequate for the reasons given below:

<p>WR 98-01710-01 - Retest of the RHR keep full check valve.</p>	<p>This WR required verification of no leakage with the system in service at normal pressure. This requirement was unclear as to what leakage was being inspected. The proper retest should have included pressure boundary leakage, valve seat leakage, and the ability of the valve to pass flow.</p>
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WR 98-03189-01 - Retest for the replacement of RHRSW pump A motor cooling water isolation valve.	This WR required verification that the valve opened and passed flow within 5 seconds of the pump starting. However, the work request should have also included a check of pressure boundary leakage and a check that the valve isolated flow.
WR 99-05737-10 - Retest of the fluid pressure boundary following replacement of the A RHRSW pump.	This WR required inspection of the pump for leakage during the performance of ST-2XA. The inspector considered this retest inadequate because it did not clearly identify the individual joints to be inspected. The WR required QC to be knowledgeable of the scope of the work and select the appropriate joints.
WR 99-06908-10 - Retest for modification to the RHRSW strainer basket assembly.	This WR required a pressure test of mechanical joints and verification of proper operation during the performance of a surveillance test. As noted above, the joints requiring retest were not clearly identified. The verification of proper operation was subjective and did not provide criteria to test the major goals of the modification (i.e. isolation capability of the improved seating surface and torque required to shift the strainers). In this case, proper operation was not a sufficiently specific test criteria.

The above examples were evaluated using the SDP and collectively determined to be Green (of very low safety significance) because the identified examples were not considered likely to result in safety system inoperability. Additionally, the retests were revised prior to testing. However, 10CFR50, Appendix B, Criterion XI, "Test Control," requires that testing be performed in accordance with written test procedures which incorporate the proper requirements and acceptance criteria. Contrary to the above, work requests 98-01710-01, 98-03189-01, 99-05737-10, and 99-06908-10 did not adequately include the proper requirements and acceptance criteria for the required testing. This violation is being treated as a Non-Cited Violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). The issues associated with this violation are in the NYPA corrective action system as DER 00-02625. **(NCV 05000333/2000-004-03)**

1R22 Surveillance Testinga. Inspection Scope

The inspectors reviewed procedures and observed portions of testing related to the following surveillance tests:

- ST-4F, "HPCI Automatic Isolation Logic System Functional and Simulated Automatic Actuation Test," Revision 26.
- ST-15J, "Torus to Drywell Vacuum Breaker Quarterly Test (IST)," Revision 2.
- ST-2XA, "RHR Service Water Loop A Quarterly Operability Test (IST)," Revision 2.

b. Issues and Findings

NYPA failed to provide an adequate acceptance criteria for the maximum acceptable torque needed to exercise the torus to drywell vacuum breakers in the associated quarterly surveillance test procedure. The SDP concluded that this finding was Green (of very low safety significance) because after determining the acceptable torque limits, all test results since the procedure was established were found to be satisfactory. Nonetheless, the failure to provide adequate acceptance criteria is a non-cited violation of NRC requirements. There were no findings related to the other surveillance tests reviewed.

During the review of the quarterly drywell to torus vacuum breaker surveillance test, the inspectors noted that the acceptance criteria only required the torque value for each vacuum breaker be recorded. The applicable station administrative procedure (AP) 19.05, " Pump and Valve Inservice Testing Program", Revision 6, describes that if a mechanical exerciser is used to move the valve disk, as is the case with the vacuum breakers, the force or torque needed to initiate movement shall be measured, recorded and shall not vary by more than 50% from the reference value. Based on discussions with members of the FitzPatrick staff, the inspectors ascertained that approximately a year and a half ago, the test method for measuring the torque was changed. At that time no reference value was provided, but one should have been provided based on existing data. Therefore, the inspectors concluded that the surveillance test procedure did not provide an adequate acceptance criteria.

The failure to provide an adequate acceptance criteria for the quarterly exercising of the drywell to torus vacuum breakers is a violation of 10CFR50, Appendix B, Criterion XI, "Test Control." 10CFR Appendix B, Criterion XI, "Test Control," requires tests be performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. This finding was evaluated using the SDP and determined to be Green (of very low safety significance) because after determining the acceptable torque limits, all test results since the procedure was established, were found to be satisfactory. This violation is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). The deficiencies associated with this violation are entered into the NYPA corrective action system as DER 00-02582.

**(NCV 05000333/2000-004-04)**

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the list of installed temporary modifications and selected the following for further review:

- 00-32 Install temporary pressure gage on HPCI
- 00-33 Defeat of redundant low vacuum turbine trip instrument.

b. Issues and Findings

There were no findings identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety (OS)**

2OS1 Access Control to Radiologically Significant Areas

1. Inspection Scope

During the period June 19-23, 2000, the inspector conducted the following activities to determine the effectiveness of access controls to radiologically significant areas implemented during power operations:

All locked high radiation areas in the reactor building, turbine building, and the radwaste building were physically checked and the keys inventoried. Independent measurements were made of radiation levels in radiologically controlled areas within these buildings to verify the accuracy of posted surveys and the adequacy of radiation work permits (RWP).

On June 20, 2000 and June 22, 2000, the inspector attended pre-job RWP/as low as reasonably achievable (ALARA) briefings and subsequently observed work-in-progress in the reactor building for testing inflatable main steam line plugs, and for the re-installation of the refueling bridge mast, respectively. The inspector discussed with the workers the radiological practices that applied to their tasks.

The inspector reviewed the licensee's actions following the identification on April 26, 2000, that a worker had logged onto the wrong RWP prior to entering a locked high radiation area (DER 00-01547).

On June 22, 2000, the inspector performed a radiation survey of soil that had been removed from the site protected area and placed in storage in an unrestricted location. The inspector confirmed that the observed readings were indistinguishable from background radiation levels.

b. Issues and Findings

There were no significant issues or findings identified in this area.

2OS2 ALARA Planning and Controls

1. Inspection Scope

The inspector reviewed the effectiveness of various controls to minimize and equalize personnel exposure for recent activities conducted during power operations. Performance was reviewed for those work groups having an elevated cumulative exposure, including the mechanical maintenance and radiation protection departments. The inspector discussed with the licensee the causes for certain tasks that exceeded their projected dose estimates, in particular, tasks performed in steam affected areas and in cleaning the spent fuel pool.

The inspector reviewed the licensee's progress in resolving various Deviation/Event Reports that address reducing personnel exposure from contaminated systems. Included in this review were the source reduction and shielding activities implemented to resolve DER 00-002079, "Service Air System contamination," DER 00-02452, "Chemistry Sampling Panel (SP-7) contamination," and DER 99-00025, "Decay Heat Removal System contamination."

2. Issues and Findings

There were no significant issues or findings identified in this area.

**4. OTHER ACTIVITIES [OA]**

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspector reviewed the performance indicator for RHR system unavailability (July 1999 through March 2000).

b. Issues and Findings

There were no findings identified.

4OA2 Identification and Resolution of Problems

Inspection findings in previous sections of this report also had implications regarding NYPA's identification, evaluation, and resolution of problems, as follows:

1. Section 1R15 - The failure to perform an adequate operability evaluation for the RCIC steam leak detection system demonstrated weak evaluation of an identified problem.
2. Sections 1R19 and 1R22 - Identified examples of inadequate test criteria. NRC inspection report 05000333/99009 identified a non-cited violation because test

criteria was incomplete which resulted in high pressure coolant injection (HPCI) being in an inoperable condition without being identified as such for approximately 20 hours.

Additional items associated with NYPA's corrective action program were reviewed without findings.

#### 4OA4 Independent Spent Fuel Storage Installation (ISFSI) Project (IP 60853)

##### a. Inspection Scope

NYPA recently initiated construction work on the ISFSI cask storage pad. The inspectors observed the excavated area for the storage pad and the material placed in the excavation that will support the concrete storage pad. Photographs of the excavation prior to placement of the fill material were reviewed. Fill and compaction operations were observed by the resident inspectors. The specification requirements for testing of the fill material and a sample of testing documentation records were reviewed.

The project scope, pad storage location, current project staffing, and schedule for major project milestones were reviewed. The major ISFSI project milestones included the storage pad concrete placement, dry fuel storage cast and multi-purpose storage canister (MPC) fabrication, worker training, preparation for the dry run, dry run demonstration of the spent fuel loading, cask welding, non destructive examination (NDE), cask/MPC transportation, the 10 CFR Part 72.212 evaluation, and the initial spent fuel transfers from the spent fuel pool to the ISFSI storage pad.

##### b. Issues and Findings

There were no findings identified during the inspection.

#### 4OA5 Other

- .1 (Closed) LERs 50-333/99-008-01 and 50-333/99-008-02: High Pressure Coolant Injection System Declared Inoperable Due to Instrument Malfunction During Surveillance Testing. The initial LER associated with this issue was reviewed and closed in NRC IR 05000333/2000-001. The additional information provided in the supplemental LERs was related to the performance indicator safety system functional failure classification. This information was reviewed and the LERs closed during an in-office review.
- .2 (Closed) LER 50-333/99-011-02: High Pressure Coolant Injection System Inoperable Due to Higher Than Normal Turbine Speed. The technical and regulatory review of this issue were provided in NRC IRs 05000333/99-009, 05000333/2000-01 and 5000333/2000-008. The initial LER associated with this issue was reviewed and closed in NRC IR 05000333/99-010, and the first LER supplement was reviewed and closed in NRC IR 05000/2000-008. The additional information provided in the second supplemental LER was related to the performance indicator safety system functional failure classification. This information was reviewed and the LER closed during an in-office review.



- .3 (Closed) LER 50-333/99-014-01: Non-Conservative APRM-Flow Referenced Neutron Flux Scram Line. The initial LER associated with this issue was reviewed and closed in NRC IR 05000333/2000-00. The additional information provided in the supplemental LER was reviewed and the LER closed during an in-office review.
- .4 (Closed) LER 50-333/00-002-01: HPCI Inoperable Due to Speed Control Problem. The initial LER associated with this issue was reviewed and closed in NRC IR 05000333/2000-008. The additional information provided in the supplemental LER was related to the performance indicator safety system functional failure classification. This information was reviewed and the LER closed during an in-office review.
- .5 (Closed) LER 50-333/00-004: RCIC System Inoperable for Greater than Seven Days. The technical and regulatory review of this issue were provided in NRC IR 05000333/2000-008. This LER was reviewed and closed during an in-office review.
- .6 (Closed) LER 50-333/00-004-01: RCIC System Inoperable for Greater than Seven Days and Inoperable During two Plant Start-up Evolutions. The technical and regulatory review of this issue were provided in NRC IR 05000333/2000-008. The additional information provided in the supplemental LER was reviewed and the LER was closed during an in-office review.
- .7 (Closed) LER 50-333/00-005: One of Two 115KV Reserve Power Lines Inoperable Concurrent With One Emergency Diesel Generator Train Inoperable. This LER pertained to a minor finding and was closed during an in-office review.

#### 4OA5 Meetings

##### Exit Meeting Summary

On July 13, 2000, the inspectors presented the inspection results to Mr. Colomb and other members who acknowledged the findings presented.

During the exit, four findings of very low safety significance were discussed that were determined to be non-cited violations (NCVs). Should NYPA elect to contest these NCVs, a written response within 30 days of the date of this Inspection Report, with the basis for the denial, should be sent to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, and the NRC Resident Inspector at the FitzPatrick facility.

The inspectors asked the NYPA personnel whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

End of Cycle Review Public Meeting

On June 6, 2000, a meeting was held between the NRC and FitzPatrick to discuss the results of the pilot inspection and assessment program under the revised reactor oversight process. The meeting was held on site and was open to public observation. The annual assessment letter discussed during the meeting was issued as NRC inspection report 05000333/2000-010, dated May 18, 2000.

**PARTIAL LIST OF PERSONS CONTACTED**

T. Bergene, Planning & Scheduling Supervisor, Radiation Protection  
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A. Jarvis, Manager, Chemistry  
D. Kieper, General Manager Maintenance  
R. Lamb, Technician, Radiation Protection  
D. Lindsey, Plant Manager  
R. Locy, Nuclear Training Manager  
M. McCarrick, Technician, Radiation Protection  
D. Morrison, Technician, Radiation Protection  
R. Murray, ALARA Engineer  
W. O'Malley, General Manager Operations  
P. Policastro, Operations Supervisor, Radiation Protection  
K. Pushee, Manager, Radiation Protection  
J. Ratigan, Health Physicist  
W. Rohr, ALARA Engineer  
P. Russell, Operations Manager  
R. Scott, Technician, Radiation Protection  
A. Stark, ALARA Engineer  
G. Tasick, Licensing Manager  
G. Thomas, Director Design Engineering  
A. Zarembo, General Manager Support Services

## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

none

### Opened and Closed

- NCV 05000333/2000-004-01: An operability determination was not completed in a timely manner and lacked technical detail.
- NCV 05000333/2000-004-02: A modification to the RHRSW strainer was performed without proper engineering review.
- NCV 05000333/2000-004-03: Retest documents for the RHRSW strainer work were inadequate.
- NCV 05000333/2000-004-04: The torus to drywell vacuum breaker surveillance test did not contain adequate test acceptance criteria.

### Closed

- LER 50-333/99-008-01: High Pressure Coolant Injection System Declared Inoperable Due to Instrument Malfunction During Surveillance Testing.
- LER50-333/99-008-02: High Pressure Coolant Injection System Declared Inoperable Due to Instrument Malfunction During Surveillance Testing.
- LER 50-333/99-011-02: High Pressure Coolant Injection System Inoperable Due to Higher Than Normal Turbine Speed.
- LER 50-333/99-014-01: Non-Conservative APRM-Flow Referenced Neutron Flux Scram Line.
- LER 50-333/00-002-01: HPCI Inoperable Due to Speed Control Problem.
- LER 50-333/00-004-00: RCIC System Inoperable for Greater than Seven Days.
- LER 50-333/00-004-01: RCIC System Inoperable for Greater than Seven Days and Inoperable During two Plant Start-up Evolutions.
- LER 50-333/00-005-00: One of Two 115KV Reserve Power Lines Inoperable Concurrent With One Emergency Diesel Generator Train Inoperable.

**LIST OF ACRONYMS USED**

ALARA	As Low As is Reasonably Achievable
AP	Administrative Procedure
APRM	Average Power Range Monitor
CFR	Code of Federal Regulations
DER	Deficiency and Event Report
EDG	Emergency Diesel Generator
ESW	Emergency Service Water
FSAR	Final Safety Analysis Report
HPCI	High Pressure Coolant Injection
ISFSI	Independent Spent Fuel Storage Installation
IST	Inservice Test
LER	Licensee Event Report
LER	Licensee Event Report
MPC	Multi-purpose Storage Canister
MR	Maintenance Rule
NCV	Non-Cited Violation
NDE	Non-Destructive Examination
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
NYPA	New York Power Authority
OS	Occupational Safety
PCIS	Primary Containment Isolation System
PI	Performance Indicator
RCA	Radiological Controlled Area
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RWCU	Reactor Water Clean Up
RWP	Radiation Work Permit
SDP	Significance Determination Process
WR	Work Request

## APPENDIX 1

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

### Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

### Radiation Safety

- Occupational
- Public

### Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margins.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margins and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margins but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.