U.S. NUCLEAR REGULATORY COMMISSION

Region I

Report No.:	94-01
Docket No.:	50-333
License No.:	DPR-59
Licensee:	New York Power Authority P.O. Box 41 Lycoming, New York 13093
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	Scriba, New York
Dates:	January 2, 1994 through February 5, 1994
Inspectors:	W. Cook, Senior Resident Inspector J.Tappert, Resident Inspector

Approved by: Peter W. Eselgroth 3/1/94

Peter W. Eselgroth, Chief Date
Reactor Projects Section 1B, DRP

INSPECTION SUMMARY: Routine NRC resident inspection of plant operations, maintenance, engineering, and plant support.

RESULTS: See Executive Summary

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EXECUTIVE SUMMARY

James A. FitzPatrick Nuclear Power Plant

Inspection Report No. 50-333/94-01

Plant Operations:

Inspector followup of a number of plant events, in particular those involving severe winter weather conditions, identified that your staff responded promptly and appropriately. Review of your specific cold weather preparations identified that you currently do not have a formal program or consolidated checklist to ensure the facility is adequately prepared for cold winter weather conditions. However, we acknowledge that your staff has taken the initiative to formalize this program.

Maintenance:

Maintenance and surveillance activities observed during this inspection period were properly performed. Review of the B station battery charger repair identified good planning and execution of the activity, including a thorough safety evaluation and post-work test. Followup of an industry event involving the leakage of high/low pressure isolation valves identified that the isolation valves at FitzPatrick have been well-maintained. Additionally, the leakage detection systems, over pressure protection devices, and operator alarm response procedures are satisfactory for identifying and addressing a leakage problem should it arise. Followup of a testing problem with the turbine combined intermediate valves identified a good and conservative response by the station staff.

Engineering:

Specific issues identified by the NRC Indian Point 3 Special Inspection Team were reviewed at FitzPatrick for applicability, including: service water system biofouling; Information Notice 90-18; and pre-stroking of air-operated and motor-operated valves. No significant problems were identified with these issues at FitzPatrick. Unresolved item 91-20-04 was closed.

Plant Support:

Inspector tours of locked high radiation areas identified that the material condition and housekeeping of these areas was sub-standard. Prior to the conclusion of the inspection period, station management had taken actions to address identified deficiencies and to ensure long term housekeeping and material conditions in these infrequently accessed areas would be improved. Inspector review of Emergency Action Level (EAL) entry conditions of high and low lake level are not entirely consistent with NUREG 0654 guidance. At the conclusion of

the inspection period, we understand that your staff was considering interim guidance for these entry conditions pending issuance of the new EALs developed by NUMARC.

Unresolved item 93-28-01 was closed and a non-cited violation of fire protection Technical Specification 4.12.E.1 was identified. Inspector followup items 92-06-02 and 92-14-12 were closed and unresolved item 92-20-02 was closed. Review of several Licensee Event Reports found them to be well-written, concise, and submitted within the guidelines of 10 CFR 50.73.

Safety Assessment and Quality Verification:

The inspectiors reviewed nine Licensee Event Reports and found them to be well written, concise, accurate, and properly submitted for NRC staff review within the guidelines of 10 CFR 50.73.

DETAILS

1.0 SUMMARY OF FACILITY ACTIVITIES

1.1 NYPA Activities

The unit operated at 100% power the majority of the inspection period. On January 2 reactor power was reduced to 65% to support a steam leak repair on a drain line to the B moisture separator reheater. Periodic power reductions of five to ten percent were conducted to support control rod pattern adjustments and turbine stop and control valve testing. In addition to the monthly Engineering and Projects meetings held on site, a modification prioritization meeting was conducted on January 17. The purpose of this meeting was to ensure the modifications currently targeted for the Spring 1994 maintenance outage (April 2 through April 29) were properly prioritized and on track for field implementation per the proposed outage schedule.

1.2 NRC Activities

The inspection activities during this report period included inspection during normal, backshift and weekend hours by the resident staff. There were 49 hours of backshift (evening shift) and 15 hours of deep backshift (weekend, holiday and midnight shift) inspections during this period.

On January 4, 1994 the Region I Regional Administrator visited the site to talk with station management and tour the facility with the resident inspectors.

Region based inspectors conducted an inspection of the operations and of operator license followup items during the week of January 24, 1994 (reference inspection report 94-03).

On January 26, 1994 a working meeting to discuss FitzPatrick licensing issues was held in the NRC headquarters office at One White Flint.

A region based inspector conducted a review of modifications and design changes the week of January 31, 1994 (reference inspection report 94-04).

Region based inspectors conducted an inspection of the emergency preparedness program during the week of January 31, 1994 (reference inspection report 94-05).

2.0 PLANT OPERATIONS (71707,71710,93702,92701)

2.1 Followup of Events Occurring During Inspection Period

On January 4, a strong winter snow storm hit the area causing the utility to send their non-essential plant staff home early and cancel any second shift work activities. Operating shift personnel were able to report to work, however, some crew members were held over to ensure sufficient manning should weather conditions further deteriorate.

On two separate occasions, severe cold temperatures caused operational problems. On January 11 the auxiliary boiler (supplies house heating steam) fuel oil line froze due to an uninsulated section of the fuel line and excessive water in the fuel. The fuel line was thawed, water drained, a fuel additive put in the fuel storage tank, and the fuel supply line insulated. This event had no immediate impact or consequence. Both turbine building and reactor building ventilation systems were placed in the recirculation modes to maintain building temperatures in their normal operating range while the auxiliary boiler was out of service (approximately 8 hours). On January 18 the main stack gaseous effluent monitors (iodine and particulate) sample pump line froze due to an accumulation of moisture in the sample line and the inadvertent power loss to a space heater. The sample line was promptly restored (less than four hours) and the space heater reenergized. The inspector verified the stack effluent monitors were restored prior to the need to obtain a grab sample per Technical Specification, Appendix B, section 3.1.a. No other problems were noted.

On February 1, oscillations were observed by control room operators on the B battery charger output. Inspector followup of this event is discussed in section 3.1.1 of this report.

On February 4 during auxiliary operator rounds, the lube oil temperature for the D emergency diesel generator was found low out of specification. Investigation by the maintenance staff identified a failed immersion heater. A replacement heater was installed and tested satisfactorily on February 5. The inspector verified that control room operators appropriately entered the Technical Specification limiting condition for operation (TS 3.9.B.3) and took proper compensatory actions. No problems were identified.

In general, the FitzPatrick staff responded promptly and appropriately to the events discussed above.

2.2 Winter Storm

During the week of January 17, a severe winter storm and cold temperatures engulfed the Northeastern states. To ensure continuity of power locally, the FitzPatrick staff carefully reviewed their surveillance testing schedule, in advance, to assess their vulnerability to higher risk (reactor protection system challenges) testing. Consideration was given to postponing some testing, but electrical grid conditions were stable when the testing came due and the surveillance tests were performed without incident. The inspector concluded that the FitzPatrick staffs' early consideration and precautions taken for performing these higher risk surveillance tests to have been conservative and appropriately focused on safe operation of the facility.

2.3 Cold Weather Preparations (71714)

Prior to and since the onset of seasonally cold weather, the inspectors have monitored NYPA's actions to protect safety-related systems against cold and snowy weather conditions. The inspectors determined that the FitzPatrick staff does not have a formal program or

established checklist of actions to complete prior to the start of the cold weather season. Actions taken, to date, have been informally tracked by individual departments. However, after having experienced some unusually harsh weather early in this winter season, an Action Commitment Tracking System (ACTS) item was assigned (No. 9015) to develop a plant-wide preventive maintenance procedure for implementation by June 1994.

The inspectors determined that in their October 31, 1979 response to NRC IE Bulletin 79-24, NYPA had completed a broad review of all safety related systems to ensure no process or instrumentation lines were subject to freezing temperatures. As a consequence, a summary table of potentially effected safety and non-safety related systems process and instrument lines was prepared, which identified the measures taken to prevent line freezing. This summary table was later used to develop maintenance procedure (MP)-71.5, Outdoor Heat Tracing Inspection and Testing, which is performed annually, typically prior to the onset of cold weather. The inspector determined that MP-71.5 was just recently completed on January 18, 1994. This was not timely, as harsh winter weather had already set in. The inspector learned that the previous performance of MP-71.5 was October 6, 1992.

The inspectors' review also included discussions with the responsible systems engineers and operations staff, and periodic plant walkthroughs and exterior walkdowns to verify the condition of systems and instrumentation potentially effected by the cold weather. The inspector verified that specific freeze protection annunciation is provided in the control room for the condensate storage tanks (CSTs) supply lines (annunciator 09-6-2-29). The alarm setpoint is maintained at 37°F, but apparently not challenged due to the constant removal, recirculation, and makeup to the CSTs via one or more of the control rod drive system, ECCS pump testing supply and return lines, condensate hotwell spill over, and radioactive waste water preprocessing. As discussed in section 2.1 above, the main stack effluent monitor sample line and pump are susceptible to freezing and are annunciated in the control room via the radiation monitor alarm circuitry. Potential freezing problems with the containment atmosphere dilution system (nitrogen tanks and valves are located in an unheated and ventilated enclosure) are detected by operators conducting shiftly rounds and periodic system manipulations. The inspector considered the freeze protection measures and annunciation circuitry for the systems discussed above appropriate.

The FitzPatrick staff was working on one problem involving non-safety related outside air-cooled transformers during this inspection period. The problem involves the buildup of wind-driven snow on the transformer surfaces that enters through the transformer housing louvers. The interim solution to this problem has been to cover the transformers with a temporary scaffolding and tarp enclosure. Long-term resolutions are being evaluated by the FitzPatrick engineering staff.

In summary, the inspector found that the plant systems freeze protection measures taken by the FitzPatrick staff, to date, have been adequate. The completion of MP-71.5 in January 1994 was not particularly timely, but all heat trace systems were found to be functioning properly when needed and when tested. NYPA's actions to formalize their cold weather

preparation program into one comprehensive procedure was considered a good initiative. The inspector had no further questions or concerns.

2.4 Engineered Safety Features System Walkdown

The inspector conducted partial control room and in-plant walkdowns of the following systems:

- Reactor building closed loop cooling.
- Reactor core isolation cooling.
- High pressure coolant injection (HPCI). During the partial system walkdown, the inspector noted that local HPCI booster pump suction pressure gage, 23PI-99, was reading 40 psig which was inconsistent with condensate storage tank static head (approximately 20 psig). In response to this observation, NYPA recalibrated the gauge and it is currently reading accurately.

No additional discrepancies or problems were noted during the inspection walkdowns of the above systems.

3.0 MAINTENANCE (62703,61726,92701)

3.1 Maintenance Observation

The inspector observed and reviewed selected portions of preventive and corrective maintenance to verify compliance with codes, standards and Technical Specifications, proper use of administrative and maintenance procedures, proper QA/QC involvement, and appropriate equipment alignment and retest. The following activities were observed:

- Work Request (WR) 94-803, troubleshoot/repair ADS RV-71F vibration monitor on January 25. Work instructions were general, but the technicians conducted the troubleshooting in a logical, methodical manner. The fault was isolated to inside the drywell and the corrective maintenance was deferred until the next unit outage.
- WR 94-1095, troubleshoot cause for blown control fuse in the A CAD tank cabinet 27NS, performed on January 30, 1994.
- WR 93-4049, HPCI drain modification, performed on January 31, 1994.
- WR 94-0243, install new RCIC exhaust fan power supply, performed on January 31, 1994.

No concerns were identified during inspector review of the above activities.

3.1.1 B Battery Charger Repair

On February 1, control room operators observed amperes oscillations on the output of the B station battery charger. Output amperage is normally about 30 amperes and output oscillations of between 0 and 50 amperes were noted. A plant deficiency tag and work request was initiated to troubleshoot and repair the B battery charger.

The inspector reviewed the completed Work Request (94-01181-00), post-work test (TMP-071.01, "125 VDC station battery charger post work test") and safety evaluation (JAF-SE-94-026) prepared for the potential use of a temporary battery charger should it be needed. The inspector noted that while the B battery charger was being repaired, the DC loads normally supplied by the charger were being carried by the B station battery. The temporary charger was not placed in service due to excessive output ripple (greater than 30 milliamp oscillations) in accordance with the safety evaluation acceptance criteria. The inspector found the charger repair work to have been appropriately conducted, the post-work test to have properly verified the operability of the battery charger, and the restoration of the B battery properly conducted after an equalizing charge. The inspector identified no problems with this maintenance activity.

3.1.2 Review of High/Low Pressure Isolation Valves

Recent events at both Pilgrim and Cooper Nuclear Power Stations identified risk significant conditions involving coolant leakage past high/low pressure isolation valves in the residual heat removal and core spray systems. Controlled leakoff was established for leaking isolation valves in these systems at both facilities. Subsequent internal examination and repair of these isolation valves identified significantly more degradation of the valve seats than originally suspected. A potential consequence of this type of valve degradation could be the over-pressurization of the low pressure system. This unisolable bypassing of containment and disabling of the effected low pressure injection system could then potentially create a harsh environment in the reactor building and disable other emergency core cooling systems.

To address this issue the inspector reviewed the normally closed containment isolation and injection check valves for both the residual heat removal (RHR) and core spray (CS) systems. This review included examination of: local leak rate testing (LLRT) results back to 1987; valve maintenance history; low pressure side leakage detection systems; over pressure protection devices; and operator alarm response procedures. With respect to LLRT and valve maintenance history, the inspector identified no specific problems or adverse performance trends. A review of the over pressure protection relief and safety valves, leakage detection devices (pressure and level sensors), and operator alarm response procedures identified no concerns. The inspector noted that all sensors were properly calibrated within the established periodicity and that the over pressure protection devices were properly set within their specified ranges.

Attachment 1 to this report summarizes the components and procedures reviewed to followup on this issue. The inspector had no concerns or further questions.

3.2 Surveillance Observation

The inspector observed and reviewed portions of ongoing and completed surveillance tests to assess performance in accordance with approved procedures and Limiting Conditions for Operation, removal and restoration of equipment, and deficiency review and resolution. The following tests were reviewed:

- ISP-17, Refueling area exhaust monitor instrument calibration.
- ST-2B, RHJR pump and MOV operability and keepfull level switch functional test.
- TMP-071.01, 125 VDC station battery charger post work test.
- ST-09D, EDG, 115 kV reserve power, station battery, or ESW pump inoperable test.

No concerns were identified during inspector review of the above testing activities.

3.2.1 Turbine Valve Testing Review

On January 26, 1994, during the performance of surveillance test ST-21C, "Main turbine combined intermediate valve test", combined intermediate valves (CIVs) #3 and #4 failed to close when tested. Based on problems encountered with previous EHC troubleshooting, no intrusive troubleshooting was authorized. However, the general manager of maintenance did authorize continuity checks on the intermediate valve position switches. These checks revealed that the open position switch on the #1 CIV had failed. This position switch is only used in the testing logic and does not affect normal operation. However, it does prevent the testing of CIV #3 and #4. A December 1993 GE Technical Information Letter (TIL) was issued which changed GE's recommended testing frequency from weekly to quarterly. Based on this TIL, NYPA decided to not test #3 and #4 CIV until the position switch is repaired during the April 1994 maintenance outage. This course of action was taken rather than to attempt to repair the switch at power or jumper out the switch to allow testing. The periodicity of future CIV testing is currently under review. The inspector determined that the #3 and #4 CIVs were successfully tested three times in January. The inspector also confirmed that the #1 CIV faulted position switch does not degrade turbine protection. The inspector concluded that NYPA's actions, to date, in resolving this issue were appropriate.

4.0 ENGINEERING (37700,93702,92700,92701)

4.1 Special Inspection Team Followup

Between April 26 and May 28, 1993, the NRC conducted a special inspection at NYPA's Indian Point 3 (IP3) Nuclear Power Plant in Buchanan, New York. Based upon the special inspection team's findings, the inspector selected specific issues identified at the IP3 facility to review for applicability at FitzPatrick. The issues reviewed during this inspection period are discussed in the following sections.

4.1.1 Service Water System Biofouling

The special inspection team (SIT) identified that the NYPA staff had discovered that a temporary modification for the continuous chlorination of the normal service water system at IP3 was inadequate for chlorination of the backup service water system header. Further, the IP3 staff's efforts to resolve this identified problem were considered untimely by the team. The inspector reviewed the FitzPatrick service water chlorination system to verify its adequacy based upon the issue identified at IP3.

The inspector determined that the chlorine injection system at FitzPatrick was installed per modification F1-90-038, to provide water treatment to protect service water systems from zebra mussel fouling and to mitigate the effects of microbiologically influenced corrosion (MIC). The service water systems protected by this chlorination system include: normal service water; emergency service water; residual heat removal service water; and fire protection water systems supplied by the 76P-1, 76P-2, or 76P-3 fire pumps. The chlorine injection system consists of a chlorine (sodium hypochlorite) storage tank, two positive displacement injection pumps and associated piping, valves, and controls.

From a review of the modification package, operating procedure (OP)-7A, "Chlorine Injection System", a walkdown of the system, and a discussion with the control room operators, the inspector determined that the A pump is typically in operation providing chlorine injection to the normal service water pump forebays. The A chlorine pump flow rate is set to maintain a chlorine concentration of no greater than 0.2 ppm in the service water discharge. The B pump is typically run to provide chlorine injection to the emergency service water pump forebay either by timer control or continuous operation. The B pump is operated, by procedure, before and during the operation of the emergency service water, residual heat removal service water, and fire protection water system pumps. If required, the chlorine injection pumps can be cross-tied to provide higher than normal chlorine injection rates.

Inspector review of the 1993 monthly chemistry reports identified that the chlorination system was in service between January and October 1993 with greater than 90% efficiency. Since October 1993 both chlorine pumps have been out of service for corrective maintenance. This system outage is less consequential during the winter months due to the

lower lake water temperatures and lower concentration of biological organisms (zebra mussel veligers are the organisms of principle concern). In addition, the facility injects two other chemicals, a penetrant and a dispersant, to assist in preventing or inhibiting microbiologically influenced corrosion. These chemicals were injected at their target concentrations between May and October 1993 (50% efficiency). This reduced efficiency appears to have been acceptable considering the reduced lake water temperatures during this period.

Inspector review and discussion with the service water systems engineer concluded that the chlorination system has been generally effective in preventing macro-biological (zebra mussels) growth in the service water systems. Preliminary assessments of the effectiveness of the penetrant and dispersant chemicals are inconclusive, but fewer ST-8R, "Emergency Service Water Check Valve and Straining Test (IST)", check valve failures due to MIC fouling of the seating surfaces have been observed. The inspector learned that batch chemical treating (molluscicide) of the circulating water system in 1993 was effective in killing small colonies of zebra mussels which had grown in the circulating water pump forebays and intake structure.

In conclusion, the inspector determined that the FitzPatrick staff is closely monitoring their service water systems for biofouling and have taken appropriate measures to control/inhibit biofouling of their raw water piping systems. The inspector will monitor this area in future inspections per the routine core inspection program. No additional questions or concerns were identified.

4.1.2 Information Notice 90-18 Followup

Information Notice (IN) 90-18 identified potential problems with Crosby safety relief valves used on diesel generator air start receiver tanks. The special inspection team determined that the IP3 emergency diesel generator air start system contains twelve Crosby relief valves of the same type discussed in the IN, but that little had been done by the IP3 staff to address the potential operability problems these valves posed since the IN was issued in March 1990.

The inspector reviewed the applicability of this IN to the emergency diesel generator (EDG) air start systems at FitzPatrick and found there to be none. The EDG air start systems at FitzPatrick are fitted with QA Category I, Seismic Class I, safety relief valves manufactured by Teledyne Ferris Engineering. The inspector also determined that IN 90-18 was reviewed and closed by the FitzPatrick staff on April 6, 1990. The inspector had no further questions.

4.1.3 Pre-stroking of Air-operated and Motor-operated Valves

The special inspection team of IP3 identified that a large percentage of air-operated valves (AOVs) and motor-operated valves (MOVs) were being stroked prior to the "as-found" stroke testing per the inservice testing program. Consequently, valuable valve performance/trending data was potentially being lost. Review of this issue at the FitzPatrick plant identified that this practice was not being used. However, there were two exceptions

where the performance of the periodic surveillance tests (ST-1R and ST-20M) involves AOVs which share a common interlock. The sequential testing order and operations staff availability limitations preclude the simultaneous stroke testing of the AOVs in these two surveillance tests. Inspector observation of surveillance testing in the past year has noted no additional instances of intentional prestroking of AOVs or MOVs. The inspector had no further questions.

4.2 Previously Identified Item

4.2.1 (Closed) Unresolved Item (91-20-04): Adequacy of Master Equipment List

During a 1991 review of the master equipment list (MEL) and procurement issues, the inspector reviewed several of NYPA's responses to Generic Letter 83-28, Required Actions Based on Generic Implications of Salem ATWS Events. In two of their responses, dated July 2, 1985 and October 16, 1989, NYPA stated that their administrative program for equipment safety classification was governed by engineering design procedure (EDP)-12, "Procedure for Establishing Quality Assurance Category Classification". The inspector subsequently learned that a contractor developed procedure, MELP-9, "MEL Component Classification", was used to generate the MEL rather than EDP-12. Additionally, the inspector identified an error in the classification of a safety-related pump room exhaust fan as a result of the MELP-9 review. These facts caused the inspector to question the completeness and adequacy of the MELP-9 review and the MEL.

On December 6, 1989, EDP-12 was cancelled and replaced with Modification Control Manual (MCM)-6A, "Component Classification and System Safety Function Control". PORC then assigned an open item to the Technical Services staff to assess the impact of changing the component classification methodology. Subsequent to the 1991 NRC inspection, this assessment was done. A 10% sample of all components that had their QA classification changed during the MEL process were reviewed. The review found less than a 1% error rate. The two identified discrepancies were properly dispositioned for continued use. This review provided confidence in the previous classification procedures utilized, including the MELP-9.

The October 16, 1989 response letter appeared to be in error when it identified EDP-12 as the governing classification procedure. MELP-9 was used to classify the majority of the plant components and provided a reasonable methodology for doing so. The MEL audit also validated the process. Therefore, the error in the classification of the safety-related pump room fan was found to be a discrete discrepancy, rather than a symptom of broader programmatic problems.

In a November 29, 1993 update to their Generic Letter 83-28 response, the Power Authority identified MCM-6A as the classification procedure. This procedure has been reviewed and found to provide a rational basis for safety classification. Additionally, in their updated November 29, 1993 response, NYPA committed to adding all small (1-inch or less) fire

protection safety related valves to the MEL. Previously these valves had been excluded. Therefore, based on the current and passed classification methodologies and audits of the MEL, the current Master Equipment List has been determined to be adequate and unresolved item 91-20-04 is closed.

5.0 PLANT SUPPORT (64704,71707,83750,40500,92701)

5.1 Radiological Controls

5.1.1 Inspector Tours of High Radiation Areas

In accordance with the inspection guidance of Module 71707, the inspectors conducted their periodic inspection of the facility high radiation areas.

The inspectors toured high radiation areas in the reactor building and radwaste building. The high radiation areas in the turbine building will be toured in a subsequent inspection period while the unit is shutdown (for ALARA reasons). During the tours of the high radiation areas, the inspectors noted good access control being maintained by the operations staff and the accompanying radiation technician.

The inspectors noted generally sub-standard plant material condition and housekeeping conditions in the numerous areas inspected. It was evident, that the same plant housekeeping and material conditions controls exhibited in the high traffic areas of the plant did not extend to the high radiation areas. For example: ladders were found staged in several of the areas without being adequately secured or stowed; post-maintenance or repair work debris (tubing, tools insulation, rope, poly bottles, etc.) was found laying haphazardly on the floor; material condition of some components was poor (i.e., valves rusted or dust covered, insulation damaged or missing, lighting poor or degraded). The inspectors shared their observations with station management immediately following their tours and received assurances that the noted discrepancies would be corrected in a timely manner and that measures would be taken to maintain these areas in better condition. The inspectors will followup on the effectiveness of NYPA's actions during their next high radiation area tour.

In no areas did the inspectors identify an immediate safety concern or improper storage of radioactive materials. The inspectors did note that the condition of the A reactor water cleanup pump room had been significantly improved (decontaminated and freshly painted) which they learned was done in conjunction with the replacement of the pump during the past several months. The inspectors had no additional observations.

5.2 Housekeeping

During periodic tours of the power block, the inspector noted a gradual increase in the amount of absorbent materials being left to control oil leaks. NYPA responded aggressively to this observation by removing excessive oil adsorbents and then reducing the combustible

loading in these areas. Additionally, walkdowns were performed to identify all oil leaks and prepare for appropriate maintenance activities to minimize or eliminate these oil leaks.

Positive results were observed in response to some of the plant staff's recent radiological and maintenance improvement initiatives. Specifically, a reduction in plant contaminated areas and a reduction in the radioactive materials and equipment on the refuel floor was noted. The material condition of the standby liquid control system has also noted to have improved.

5.3 Emergency Preparedness

5.3.1 Emergency Action Levels

Following recent icing problems at Ginna station, the inspector reviewed FitzPatrick emergency action levels (EALs) for low and high lake water levels. These EALs had been revised in December 1993 and the entry condition water levels for the Unusual Event and Alert had been changed to include a concurrent requirement of sustained high winds in excess of 52 miles per hour. NUREG 0654, "Criteria for preparation and evaluation of radiological emergency response plans and preparedness in support of nuclear power plants", was endorsed by the FitzPatrick safety evaluation and recommends using the 50 year flood or low level as the Unusual Event entry condition. No mention is made of concurrent sustained high winds. Therefore, the inspector was concerned about the necessity or appropriateness of the additional wind requirements for the entry condition. At the end of the inspection period, NYPA was reviewing this issue and considering interim guidance for the operations staff until the issuance of the new industry developed EALs.

5.3.2 Followup of Previously Identified Item

(Closed) Inspector Followup Item (92-06-02)

This inspector followup item identified the need to improve control room operator awareness and timeliness of 15-minute offsite notifications in accordance with Emergency Action Procedure (EAP)-1.1. Since this observation was made, the inspectors have closely monitored the timeliness of 15-minute Emergency Plan (EP) notifications per the Emergency Notification System and the Radiological Emergency Communication System. For both actual EP entry conditions and numerous practice EP drills witnessed in the past year, the timeliness of the 15-minute notifications has been good. This item is closed.

5.4 Fire Protection

5.4.1 Followup of Previously Identified Items

(Closed) Unresolved Item (93-28-01)

This unresolved item identified that the NYPA staff had discovered on December 21, 1993 the failure to properly test a part of the heat detection systems for both trains of the standby gas treatment system. An adequacy review of all fire protection systems surveillance tests identified this testing deficiency which had apparently existed since initial installation. The specific cause for this testing oversight could not be determined. However, when the filter outlet plenum heat detectors were tested on December 21, they successfully performed their alarm function. The inspector verified that the outlet plenum heat detectors and the above charcoal filter bed heat detectors provide annunciation only, and do not provide an automatic actuation signal to the charcoal filter water suppression systems installed in both standby gas filter trains. The inspector also reviewed the revised surveillance test procedures and discussed the tests and corrective actions with control room operators and the responsible fire protection engineer. No problems were identified.

The failure to test the standby gas filter train outlet plenum heat detectors was a violation of Technical Specification 4.12.E.1. Because this surveillance testing oversight was identified by the NYPA staff, of low safety significance, appropriately reported, and the corrective actions were thorough, the violation was not cited in accordance with the provisions of 10 CFR 2, Appendix C, Section VII.B.2 of the Enforcement Policy. This unresolved item is closed.

(Closed) Unresolved Item (92-20-02)

This unresolved item involved the adequacy in which the NYPA corporate engineering and FitzPatrick plant staffs responded to identified fire door NFPA code deficiencies. The item was initially identified in the inspection reporting period for 92-20 (October 11 through November 14, 1992), but subsequently reviewed and closed out in inspection report 92-14, section 7.0 (this inspection period lasted from September 14 to December 18, 1992). Consequently, this unresolved item is administratively closed.

(Closed) Inspector Followup Item (92-14-12)

This inspector followup item identified two principle concerns involving the design and operation of the intake structure de-icing heaters. These issues were addressed by NYPA and reviewed and closed in the previous NRC inspection report (reference inspection report 93-17, section 4.2.5) per inspector followup of a Diagnostic Evaluation Team observation (DEO.ENG.039) and a Fire Protection/Appendix R Inspection Team finding (92-80-04, AR-40). Consequently, this inspector followup item is administratively closed.

6.0 SAFETY ASSESSMENT AND QUALITY VERIFICATION (92700,90712,90713)

6.1 LER Review

The inspectors reviewed the following Licensee Event Reports (LERs) and found them to be well-written, concise, accurate, and properly submitted for NRC staff review within the guidelines of 10 CFR 50.73:

- LER 92-034, Engineered safety feature actuation due to transformer failure, dated July 23, 1992 (reference inspection report 92-11, section 2.5).

- LER 92-034-01, Engineered safety feature actuation due to transformer failure, Supplement 1, dated January 14, 1994.

- LER 92-035-01, ESF actuation and loss of effluent monitoring due to transformer failure, Supplement 1, dated February 11, 1993.

- LER 92-44, Identification of non-conformance to the FSAR design criteria for electrical cable separation, dated November 9, 1992 (reference inspection report 92-24).

- LER 92-044-01, Identification of non-conformance to the FSAR design criteria for electrical cable separation, Supplement 1, dated April 19, 1993.

- LER 92-50, Inadequate testing of emergency diesel generators, dated December 9, 1992 (reference inspection report 93-22).

- LER 92-51, Reactor water conductivity surveillance missed, dated December 23, 1992 (reference inspection report 92-17, section 2.3.1).

- LER 93-026, High pressure coolant injection inoperable due to failed master trip unit in the steam leak detection system, dated January 3, 1994 (reference inspection report 93-28, section 2.1).

- LER 93-027, Fire protection system functional test procedure weaknesses, dated January 20, 1994 (reference inspection reports 93-20, 93-24, 93-26, 93-28).

The inspector identified no additional concerns or problems with NYPA's response to these events.

7.0 MANAGEMENT MEETINGS (30702,71707)

7.1 Exit Meetings

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings. In addition, at the end of the period, the inspectors met with licensee representatives and summarized the scope and findings of the inspection as they are described in this report. The licensee did not take issue with any of the findings reviewed at this meeting.

ATTACHMENT 1

High/Low Pressure Isolation Valve Review Data

Isolation Valve No.	Description
10 AOV-68A,B	LPCI injection testable check
10 MOV-18	Inboard shutdown cooling suction isolation valve
10 MOV-17	Outboard shutdown cooling suction isolation valve
10 MOV-25A,B	LPCI inboard injection isolation valve
14 MOV-12A,B	Core spray inboard injection isolation valve
14 AOV-13A,B	Core spray injection testable check valve

Safety & Relief Valves	Description
10 RV-41A,B,C,D	RHR pump suction relief valve
10 SV-35A,B	Reactor and containment spray flow safety valves
10 SV 40	Shutdown cooling RHR pump suction safety valve
14 SV-20A,B	Core spray injection flow safety valves

Sensors	Description
10 PI-130A,B	RHR LPCI keep-full pressure indicator
10 PI-131A,B	RHR LPCI keep-full pressure indicator
10 PI-118	Recirc loop to RHR pump
10 PS-122A,B	RHR discharge header pressure
14 PS-47A,B	Core spray high pressure valve leak pressure
10 LS-101	RHR discharge piping keep-full level switch
10 LS-104	RHR discharge piping keep-fill level switch

14LS-20A,B	Core spray discharge piping level switch

Procedures

Alarm Response Procedure 09-4-3-22

Alarm Response Procedure 09-4-3-23

Alarm Response Procedure 09-3-2-11

MP-059.07, Testing of Relief and/or Safety Valves (IST)

ST-39B, Type B and C LLRT of Containment Penetrations

IMP-G1, Pressure Indicator Calibration

IMP-10.5, Residual Heat Removal System Pump Suction Pressure Switch Maintenance

IMP-10.1, RHR System Loop A Maintenance

IMP-10.2, RHR System Loop B Maintenance

IMP-14.1, Core Spray System Channel A Instrument Maintenance

IMP-14.2, Core Spray System Channel B Instrument Maintenance

IMP-G30, Liquid Level Sensor Maintenance