U.S. NUCLEAR REGULATORY COMMISSION

Region I

Report No.: 93-12

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: May 23, 1993 through June 26, 1993

Inspectors: W. Cook, Senior Resident Inspector
J.Tappert, Resident Inspector

Approved by: Peter W Eselgroth 7/12/93
Peter W. Eselgroth, Chief Date
Reactor Projects Section 1B, DRP

INSPECTION SUMMARY: Routine NRC resident inspection of plant operations, radiological controls, maintenance, surveillance, engineering and technical support, and quality assurance/safety verification.

RESULTS: See Executive Summary

Executive Summary

James A. FitzPatrick Nuclear Power Plant

NRC Region I Inspection Report No. 50-333/93-12

05/23/93 - 06/26/93

Plant Operations

Overall plant operations was good this inspection period. A detailed review of the April 20 heatup and cooldown rates being exceeded resulted in these Technical Specification violations not being cited. Operator performance during two unit startups and an automatic shutdown this period was observed to be good.

Maintenance

Portions of numerous maintenance and surveillance activities were observed and found to have been well controlled with good procedural adherence. An unresolved item **(URI 93-12-01)** identifies the inspector's concern for the adequacy of logic system functional testing and the recent deficiencies identified by your staff. Additional HPCI surveillance testing deficiencies identified by your staff during this inspection and the action taken to address them will be reviewed in a future inspection.

Engineering

Review of your actions to address NRC Bulletin 93-03 involving reactor vessel level instrument issues identified good involvement by your operations, maintenance, and engineering staffs. NYPA's efforts to gain a better understanding of the condensing chamber temperature performance data are appropriate and timely. Our review of your response to NRC Bulletin 93-02 found it to be satisfactory.

Site Support

No noteworthy observations were made in this new inspection functional area. Review of a number of LERs and Special Reports identified clear and concise documentation of the events and good corrective actions taken by your staff for the events described.

TABLE OF CONTENTS

Page No.

1.0 SUMMARY OF FACILITY ACTIVITIES 1
1.1 NYPA Activities 1
1.2 NRC Activities 1

2.0 PLANT OPERATIONS 1
2.1 Routine Plant Operations Review 1
2.2 Operational Safety Verification 2
2.3 (Closed) URI 93-10-01; Cooldown and Heatup Rates Exceeded 2
2.4 Reactor Startups and Shutdown 4
2.5 Emergency Response Sirens Temporarily Out of Service 5
2.6 K Safety Relief Valve Weepage 5

3.0 MAINTENANCE (62703, 61726) 5
3.1 Maintenance and Surveillance Observations 5
3.2 HPCI Pump Discharge Isolation Valve Logic Testing Deficiency 6

4.0 ENGINEERING (93702,62703,71726,37700) 7
4.1 Preliminary Followup of NRC Bulletin 93-03 7
4.2 NRC Bulletin 93-02 Followup 9

5.0 SITE SUPPORT 9
5.1 Review of Licensee Event Reports (LERs) and Special Reports 10
5.1.1 LERs 10
5.1.2 Special Reports 10

6.0 MANAGEMENT MEETINGS 11
6.1 Public Meeting 11
6.2 Exit Meetings 11

NOTE: The NRC inspection manual procedure or temporary instruction that was used as inspection guidance is listed for each applicable report section.

DETAILS

1.0 SUMMARY OF FACILITY ACTIVITIES

1.1 NYPA Activities

At the beginning of the inspection period, the reactor was shut down to make repairs to the HPCI injection check valve. A reactor startup commenced on May 25. After achieving normal operating pressure and temperature (940 psig), a full automatic reactor scram occurred due to a spurious high neutron flux spike on the E APRM, coincident with a manually inserted half scram on the opposite reactor protection system channel. The unit was restarted on May 28 and achieved 100% power on June 1. The unit operated at full power the remainder of the inspection period.

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 28 hours of backshift (evening shift) and 16 hours of deep backshift (weekend, holiday and midnight shift) inspections during this period.

On June 2, 1993, the NRC staff held the Systematic Assessment of Licensee Performance (SALP) Board in the Region I office. The results of this assessment will be published by separate correspondence.

On June 15, 1993, a meeting between the NRC staff and NYPA was held at the FitzPatrick Training Center to review NYPA's May 1993 self-assessment of the Results Improvement Program. The meeting was open for public observation (see section 6.1 of this report).

2.0 PLANT OPERATIONS (71707,71710,93702)

2.1 Routine Plant Operations Review

During the inspection period the inspectors observed control room activities including operator shift turnovers, shift crew briefings, panel manipulations and alarm response, and routine safety system and auxiliary system operations conducted in accordance with approved operating procedures and administrative guidelines. The inspectors made independent verification of safety system operability by review of operator logs, system markups, control panel walkdowns and component status verifications in the field. Discussions were held with operators and technicians in the field to assess their familiarity with current system status and personnel response to events during the inspection period. In addition, during plant tours, inspectors reviewed routine radiological control practices. The activities inspected were acceptable.

2.2 Operational Safety Verification

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

-- A and B residual heat removal

-- A and B core spray

-- High pressure coolant injection

-- Reactor core isolation cooling

No significant deficiencies were noted.

2.3 (Closed) URI 93-10-01; Cooldown and Heatup Rates Exceeded During Scram Recovery

As documented in inspection report 50-333/93-10 dated June 24, 1993, NYPA's post-trip review identified that Technical Specification (TS) 3.6.A.3 cooldown and heatup rates were exceeded following the scram. The significant details were documented in Licensee Event Report 93-09, dated May 19, 1993.

Event Review

Inspector followup determined that the cause for exceeding the TS 3.6.A.3 cooldown rate was the combination of the automatic trip (as designed) of both reactor water recirculation pumps at a reactor vessel level of approximately 128.4 inches, the automatic isolation (as designed) of the reactor water cleanup system on reactor vessel level of 177 inches, and the injection of relatively cold control rod drive water into the reactor pressure vessel bottom head area following the reactor scram. Because the reactor water recirculation pumps tripped, forced circulation of reactor coolant through the vessel was lost. The isolation of the reactor water cleanup system, which takes a suction from the reactor vessel bottom head, further aggravated the stratification of colder water in the reactor bottom head area. The time between the automatic initiation of the reactor scram and when the scram signal was reset (control rod drive flow secured) was approximately 16 minutes. In that period of time the control room operators experienced difficulty in stabilizing reactor vessel level due to the nature of the equipment failures that caused the low reactor vessel scram. Based upon the difficulty experienced by the operators in controlling level, the inspector concluded that the reactor scram was reset as expeditiously as possible, and consistent with procedural guidance and training.

The inspector reviewed the reactor vessel temperature traces for the time period from the scram (4:54 p.m.) to approximately 14 hours later. The reactor vessel bottom head

temperature cooldown rate exceeded the 100°F/hr TS limit by about 10°F/hr for several minutes within the first hour following the scram. Review of the temperature traces also showed that the TS heatup rate of 100°F/hr was also exceeded by about 10°F/hr for several minutes at approximately 1:00 a.m. on April 21 (approximately 8 hours following the reactor scram). The heatup of the vessel bottom head area was attributed to natural circulation, as no evolutions were in progress that would have forced the circulation of reactor coolant.

NYPA Critique Review

As stated in LER 93-09, an operations staff critique was conducted by NYPA for this event and recommendations were made to prevent or minimize the consequences of any future transients. The inspector reviewed NYPA's critique. NYPA's critique identified that contributing factors for this event were: the failure of the NYPA staff to implement the recommendations of GE Service Information Letter No. 251, issued in 1977, which provided directions to mitigate the severity of the lower head cooldown; and the failure of the Operations Review Group (ORG) to disseminate, in a timely manner, Significant Event Report No. 5-93, which provided additional guidance based upon similar events at the Hatch and Peach Bottom nuclear facilities. NYPA concluded that had the guidance provided in the above stated industry experience notifications been implemented, it may not have prevented the heatup and cooldown rates from being exceeded, but likely would have lessened the severity of these temperature transients. NYPA's critique also identified three principle areas where corrective actions should be developed. These three areas were: procedural guidance for monitoring and evaluating the cooldown of the reactor vessel lower head area during transients involving no forced circulation; procedural guidance to mitigate the temperature transient; and operator training regarding reactor vessel lower head stratification.

In accordance with TS action statement 3.6.A.5, NYPA placed the unit in cold shutdown and conducted an engineering evaluation of the impact of the temperature transient on the reactor coolant system's structural integrity. Based upon an evaluation provided by GE, NYPA concluded that the reactor vessel bottom head thermal transient was within the original design basis and closely approximated the loss of feedwater transients. In addition, GE provided NYPA with the specific 10 CFR 50, Appendix G pressure versus temperature operating curves for the reactor vessel bottom head and verified that the pressure temperature limits were not exceeded for this transient. The inspector reviewed these evaluations and concurred with NYPA's assessment.

Corrective Action Review

The inspector reviewed NYPA's corrective actions either taken or planned to address this event and found them to be appropriate. They included: a revision to the recirculation system operating procedure to address rapid restart of the pumps following pump trip and reactor scram; incorporation of GE recommendations for minimizing reactor vessel bottom head thermal transients into appropriate operating procedures; improvements in the timely review and dissemination of industry experience through the ORG to the plant operations

staff; licensed operator training to emphasize how thermal stratification can occur and be minimized per the new procedural revisions; licensed operator simulator training to concentrate on avoiding or minimizing thermal stratification; and submission of a TS amendment to incorporate the reactor vessel bottom head Appendix G curves to permit more plant operating flexibility.

Conclusion

As identified by the FitzPatrick staff, following the reactor scram on April 20, 1993, the TS 3.6.A.3 non-nuclear cooldown and heatup rates of 100 °F per hour were exceeded. As a consequence, the TS 3.6.A.4, Figure 3.6-1 reactor vessel pressure-temperature limits were also violated. However, as discussed above, the TS cooldown and heatup rates were exceeded due to thermal stratification in the reactor bottom head region and the specific bottom head Appendix G pressure-temperature limit was not violated. Because of the nature of the plant transient leading up to and following the reactor scram, the inspector considered operator response appropriately prioritized on stabilizing reactor vessel level. The inspector concluded that the FitzPatrick staff's review of this plant event was self-critical and thorough. The corrective actions discussed above were comprehensive. Consequently, in accordance with the provisions of 10 CFR 2, Appendix C, Enforcement Policy, Section VII.B.2, the Technical Specification 3.6.A.3 and 3.6.A.4 violations have not been cited. Unresolved item 93-10-01 is closed.

2.4 Reactor Startups and Shutdown

The inspectors witnessed various aspects of the reactor startups conducted on May 25 and May 28. The mode switch was placed in STARTUP at 2:16 a.m. on May 25 and the reactor was taken critical at 4:05 a.m. At approximately 8:45 p.m., after establishing reactor pressure at 940 psig for a four-hour soak preceding the inspection of 12 RWC-46 (inside primary containment; reactor water cleanup manual isolation valve), a reactor scram occurred. The reactor scram was caused by a spurious spike on the E average power range monitor (APRM) coincident with a half scram signal manuallly inserted on the B reactor protection system train because of the D main steamline radiation monitor having failed downscale earlier. The inspector verified all safety systems responded properly to the automatic reactor scram and that operator response was appropriate.

Following the scram, the FitzPatrick staff conducted a post-transient evaluation in accordance with Administrative Procedure (AP)-03.01. The inspector reviewed the evaluation and discussed its findings with station management. No concerns were identified.

After troubleshooting and repairs were completed on the nuclear instrumentation which caused the automatic reactor scram, the unit was restarted on May 28. The mode switch was taken to STARTUP at 9:06 a.m. and the reactor taken critical at 1:28 p.m. The inspector monitored various aspects of the startup and noted good control of the startup evolutions by the operations shift crews.

2.5 Emergency Response Sirens Temporarily Out of Service

On two separate occasions this inspection period, (eight sirens on May 31 and four sirens on June 9) emergency preparedness early warning sirens were temporarily out of service due to a loss of electrical power. The inspector verified that the appropriate 10 CFR 50.72 notifications to the NRC were made by the FitzPatrick staff and that the sirens were restored to service.

2.6 K Safety Relief Valve Weepage

As discussed in inspection report no. 50-333/93-10, the K safety relief valve (SRV) tail piece temperature was higher than the other SRV tail piece temperatures indicating valve seat leakage. The K SRV was stroked and the tail piece temperature decreased to within the range of the remaining SRV temperatures during the previous reactor startup. During the May 28 startup, the K SRV tail piece temperature was again elevated and the valve was stroked after reactor power was stabilized on the turbine bypass valves with the mode switch in RUN. However, the K SRV tail piece temperature did not decrease following this valve stroke and has stabilized at a temperature of 385°F (approximately 135 degrees higher than the expected highest temperature for all SRVs). The FitzPatrick staff was closely monitoring the K SRV tail piece temperature and has confirmed it to be main seat leakage. The NYPA engineering and maintenance staffs are working with GE and the valve vendor to determine the cause for the seat leakage. Operators were also monitoring torus temperatures in the vicinity of the K SRV downcomer, but the leakage has not been enough to cause any appreciable increase in torus water temperature. The inspector will continue to monitor NYPA's actions to address this operational issue, but considers NYPA's response, to date, to be appropriate.

3.0 MAINTENANCE (62703, 61726)

The inspector observed and reviewed selected portions of preventive and corrective maintenance, equipment troubleshooting, instrumentation calibrations, scheduled surveillance testing, and post-work or post-modification testing. The inspector verified adherence to procedures, compliance with codes, standards, and Technical Specifications, proper use and control of maintenance and surveillance test procedures, proper Quality Assurance department involvement, appropriate supervisory or management oversight, and proper equipment restoration following the completion of work.

3.1 Maintenance and Surveillance Observations

The following maintenance and testing activities summarized below and in the subsequent section were observed during this inspection period:

-- ST-24A, RCIC pump and valve operability test, performed on May 25.

-- Repairs to the underground hydrogen supply line from the outside hydrogen storage tank to the main generator, performed on June 4.

-- ST-34B, Reactor building exhaust monitors instrument/isolation logic system functional and simulated automatic actuation test, performed on June 10.

-- Work Request 39/113954 for emergency repair of a leak on the 3/8 inch air supply line to the air regulator for 34 FCV-137, performed on June 10.

-- Work Request 76/113913 to adjust door clearance on fire door 76 FDR-R-227-3, performed on June 9.

-- Work Request 76/98770 to repair door on hydrant house No. 17, performed on June 10.

-- MP-17.1, Monthly reactor building crane inspection (88 CR-2) per preventive maintenance work request No. 500419, performed on June 10.

-- Work Request 46/117121 to troubleshoot and adjust the reactor building closed loop cooling heat exchanger outlet flow control valve, 45 FCV-101B, per ICSO-12, Generic troubleshooting and maintenance procedure, performed on June 14.

-- ST-8Q, Testing of the Emergency Service Water System, for post-maintenance testing of unit cooler 67E-11, performed on June 23.

The inspector identified no problems with the conduct or control of the above activities.

3.2 HPCI Pump Discharge Isolation Valve Logic Testing Deficiency

During the April 20 reactor scram post-trip evaluation, NYPA conducted a review of the high pressure coolant injection system logic to determine if the system responded according to design. This evaluation revealed that the portion of the logic test on 23 MOV-19 performed with a GE test switch only tested one side (high drywell pressure) of the initiation logic. The low reactor vessel level side of the logic was not being tested. This procedural deficiency existed since the initial licensing of the plant and is contrary to Technical Specification 4.2.B and Table 4.2-2. Subsequent testing of the low reactor vessel level side of the 23 MOV-19 actuation logic proved it to be operable, as did the plant scram and level transient which occurred on April 20, 1993 and resulted in the valve properly repositioning.

As stated in LER 93-009, a similar logic system surveillance testing deficiency was identified and reported to the NRC by LER 92-032, dated July 6, 1992. The corrective actions documented in LER 92-032 included a comprehensive review of all surveillance procedures to ensure they implement the TS logic system functional testing requirements. This review was targeted to be completed by December 31, 1993 and was recently incorporated into the

FitzPatrick Results Improvement Program as a Surveillance Test Program improvement initiative.

The inspector determined from interviews with site representatives that due to more pressing demands on the plant staff in the past twelve months, no significant effort had been expended to address the Surveillance Testing Program improvement initiative. However, following the April 20 scram and the post-trip evaluation findings discussed above, appropriate manpower and resources were channeled to this project. By May 28, NYPA had developed an action plan, assigned team members, developed team training, and targeted critical systems to review on a priority basis. Prior to the conclusion of this inspection period, NYPA developed the program review procedure TSSO-18, "Surveillance Test (LSFT) Adequacy Review Procedure," dated June 8, 1993. TSSO-18 defines the logic system functional testing (LSFT) evaluation processes and responsible site staff. Also, a schedule for review of critical safety systems (low pressure coolant injection, containment cooling, anticipated transient without scram recirculation pump trip systems, alternate depressurization system, and primary containment isolation system) was approved by station management.

Prior to the conclusion of the inspection period, the inspector was informed that additional logic system functional testing deficiencies were identified with the HPCI system surveillance procedures during a detailed review. The details of these deficiencies were to be documented by NYPA in LER 93-14.

Conclusion

As stated above, NYPA identified the LSFT deficiencies as a result of a thorough post-trip evaluation for the April 20 reactor scram. Although not tested, the reactor vessel low level portion of the 23 MOV-19 actuation logic was operable and the HPCI system functioned, as designed, when called upon. The schedule and correction action effort expended by NYPA to address a similar surveillance testing deficiency in 1992 was not sufficient to have identified these LSFT deficiencies earlier. However, the schedule does appear to be consistent with the safety consequences (minor) of the known testing deficiencies. Following discovery of the 23 MOV-19 logic testing deficiencies appropriate management action has been taken to expedite a thorough surveillance testing program review. Pending inspector review of the additional LSFT deficiencies to be documented and evaluated in LER 93-14, an unresolved item has been assigned to track this issue. **(URI 93-12-01)**

4.0 ENGINEERING (93702,62703,71726,37700)

4.1 Preliminary Followup of NRC Bulletin 93-03

On May 28, 1993, the NRC staff issued NRC Bulletin 93-03, "Resolution of Issues Related to Reactor Vessel Water Level Instrumentation in BWRs." This bulletin specified short-term compensatory actions and hardware modification to ensure long-term reliability of level instrumentation. The inspector verified that NYPA completed those short-term compensatory

actions to be instituted within 15 days. Specifically, enhanced monitoring of all vessel level instruments was instituted; enhanced procedures were developed; additional controls were instituted for maintenance that could potentially drain the reactor vessel during Mode 3; and additional training was given to alert operators of the potentially confusing or misleading level indications that may result from transients initiated from Mode 3. The inspector noted no deficiencies with FitzPatrick's response to these short-term compensatory actions. The inspector also noted that NYPA's made preliminary plans to install a reference leg back-filling system to address the long-term reliability of reactor vessel level instrumentation. This modification is targeted for the September 1993 maintenance outage, unless conditions warrant it be done sooner.

As discussed in previous inspection reports (93-06 and 93-10), the FitzPatrick staff instrumented the five reactor vessel level reference leg condensing chambers with thermocouples on the top and bottom. The purpose of this modification was to gather thermal performance data on the condensing chambers to better understand the latest industry concerns with noncondensible gases collecting in the reference legs. The FitzPatrick staff completed this modification and gathered consistently reproducible performance trends during the last two power operating runs. Following reference leg backfilling prior to plant startups, the refueling level and narrow range level condensing chamber (chambers CCH-1, CCH-3A and CCH-3B) upper and lower temperatures have remained essentially constant (with a constant differential temperature) after the plant achieved normal operating temperature and pressure (NOT and NOP, respectively). However, the two wide range level chambers (CCH-2A and CCH-2B) have trended down in temperature with an essentially constant differential temperature between the top and bottom of the condensing chamber after the plant had achieved NOT and NOP conditions. The wide range chamber temperatures appear to be stabilizing, with the bottom chamber temperatures near drywell ambient temperature (130°F) and the top chamber temperatures approximately 40°F and 60°F higher (CCH-2A and CCH-2B), respectively.

The inspector noted that the NYPA site and corporate operations and engineering staffs were closely monitoring condensing chamber performance and had prepared a preliminary operability evaluation at the end of the inspection period. The preliminary evaluation was reviewed by the inspector and found to be satisfactory. The narrow range level and refueling level were determined to be functioning properly. The steady decline in wide range condensing chamber temperature was an indication of possible degrading performance. However, NYPA used additional pertinent information to support the first operability determination, such as consistent tracking between all level instruments and sufficient differential temperature between the top and bottom of the chamber to suggest water is being condensed. In addition, zero leakage exists with all instruments utilizing these condensing chambers, thus minimizing the potential for migration of non-condensible gases down the reference legs. The inspector learned that the NYPA engineering staff is actively pursuing information from other nuclear facilities who have similarly instrumented their vessel level condensing chambers, and will continue to reassess vessel level instrumentation operability as

additional data and trends are developed. The inspector found NYPA's approach in monitoring and resolving this issue appropriate.

4.2 NRC Bulletin 93-02 Followup

On May 11, 1993, the NRC staff issued Bulletin 93-02, Debris Plugging of Emergency Core Cooling Suction Strainers. This bulletin identified the potential for unexpected and rapid loss of net positive suction head to emergency core cooling system (ECCS) pumps caused by plugging of the pump strainers with fibrous materials installed or stored in primary containment which could migrate to the torus or suppression chamber. The bulletin requested licensees to identify fibrous air filters or other sources of fibrous material which are installed or stored in primary containment, but not designed to withstand a LOCA. Further, prompt action was required to remove any such material and compensatory measures implemented to ensure ECCS capability, should these materials be found.

By letter dated June 10, 1993, NYPA documented their response to Bulletin 93-02. In short, no fibrous air filters or other temporary sources of fibrous materials were installed or stored in the drywell during normal power operations. A NYPA drywell inspection on May 20, during a forced plant outage, confirmed this assessment. The June 10, 1993 response also states that the torus was inspected and cleaned by divers during February and October of 1992.

The inspector verified the information provided in NYPA's response. The inspector also notes that a related inspection of this issue was conducted and documented in inspection report No. 92-27, section 6.1. The inspector found NYPA's June 10, 1993 response satisfactory.

5.0 SITE SUPPORT

In the functional area of Site Support, the inspectors observed various facets of plant performance and support functions involving radiological controls, emergency preparedness, security, chemistry control, fire protection, and housekeeping. This newly defined inspection area corresponds to the recently revised Systematic Assessment of Licensee Performance (SALP) functional area.

Observations

The inspectors observed appropriate radiological controls, fire protection, and housekeeping practices during the frequent tours of the facility. Security guard force performance and security program implementation was also observed to be satisfactory. No significant findings in this functional area were noted.

5.1 Review of Licensee Event Reports (LERs) and Special Reports

5.1.1 LERs

The following LERs were reviewed and found satisfactory:

-- LER 93-13, Reactor scram during startup due to neutron monitor spike, dated June 23, 1993.

-- LER 93-12, Shutdown cooling isolation, dated June 18, 1993. This event was briefly discussed in inspection report 93-10, section 2.4. An unresolved item (93-10-02) was assigned for inspector review of the root cause and corrective action. This event was the seventh in three years. As stated in LER 93-12, a testing program is being developed to better determine the cause of the isolation signals. The unresolved item will remain open pending inspector review of the testing results and corrective actions implemented to prevent recurrence.

-- LER 93-11, Missed fuel oil analysis, dated May 20, 1993.

-- LER 93-10, High pressure coolant injection system declared inoperable due to electrical ground, dated May 19, 1993.

-- LER 88-009-02, Potential inadequate cooling of ECCS due to procedure inadequacies, Revision 2, dated February 25, 1993.

-- LER 91-032-01, Intake heaters potentially inoperable due to control room fire, Revision 1, dated May 1, 1993.

-- LER 91-033-01, Voluntary report concerning potential torus pressure instrument errors, Revision 1, dated November 5, 1992.

-- LER 91-029-01, Spurious trips of primary containment vent and purge isolation system, Revision 1, dated June 3, 1993.

The inspector found the above LERs written in clear and concise terms and NMPA's corrective actions, when warranted, appropriate and complete.

5.1.2 Special Reports

The following Special Reports were reviewed and found satisfactory:

-- Special Report 93-005, regarding inappropriate suspension of fire detection testing, dated June 14, 1993. This event was previously reviewed and documented in inspection report No. 93-10, section 2.5.2

-- Special Report, dated July 31, 1992, involving an inoperable carbon dioxide fire suppression system.

-- Special Report 93-003, regarding nonfunctional fire barrier penetration seal, dated May 3, 1993.

The inspector concluded that appropriate actions were taken by NYPA to address the events discussed in the above reports. The special reports were clearly and concisely written and docketed within the 30-day time intervals specified.

6.0 MANAGEMENT MEETINGS

6.1 Public Meeting

On June 15, a meeting between the NRC staff and NYPA management, open for public observation, was conducted at the FitzPatrick Training Center between 10:00 a.m. and 12:30 p.m. The purpose of the meeting was to review the Results Improvement Program self assessment conducted by the NYPA staff in May 1993. The principle attendees of the meeting are listed in Attachment 1 and a copy of the handouts provided at the meeting by NYPA are in Attachment 2. Following the meeting with NYPA management, the NRC staff entertained questions and comments for media representatives and the public who were in attendance.

6.2 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

June 15, 1993 Public Meeting Attendees

NRC

C. Cowgill, Chief, Reactor Projects Branch 1, Region 1
W. Cook, Senior Resident Inspector, FitzPatrick
R. Capra, Director, Project Directorate I-1, NRR
B. McCabe, Senior Licensing Project Manager, NRR

NYPA

R. Beedle, Executive Vice President, Nuclear Generation
H. Salmon, Resident Manager, FitzPatrick
R. Converse, Vice President, Nuclear Support
S. Zulla, Vice President, Nuclear Engineering
R. Barnett, General Manager of Operations
M. Colomb, General Manager Site Support
D. Lindsay, General Manager Maintenance
K. Chapple, Self Assessment Team Leader
R. Locy, Operations Manager
N. Gannon, RES Manager
J. DeRoy, Maintenance Manager
D. Kieper, I&C Manager
D. Topley, Training Manager
A. Zaremba, ORG Manager
J. Kaucher, Technical Services Manager
K. Moody, Configuration Management Manager
N. Avrakotos, Emergency Planning Coordinator
T. Teifke, Security Manager
J. Gray, Director of Licensing
T. Dougherty, Project Manager
G. Tasick, Site QA Manager

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

ATTACHMENT 2

IMPROVEMENT WPO JAF IP3 THROUGH TEAMWORK

NRC/NYPA

PUBLIC MEETING

RESULTS IMPROVEMENT ASSESSMENT

JUNE 15, 1993

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

IMPROVEMENT WPO JAF IP3 THROUGH TEAMWORK

MAY 1993

ASSESSMENT OF THE

FITZPATRICK
RESULTS IMPROVEMENT PROGRAM

BACKGROUND

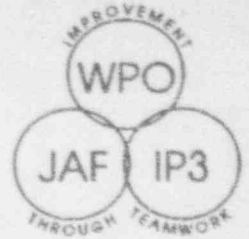
- RIP IMPLEMENTED: DECEMBER 1991
- 1st RIP ASSESSMENT: JUNE 1992
- 2nd RIP ASSESSMENT: MAY 1993

PURPOSE AND SCOPE

- CONTINUOUS IMPROVEMENT PROGRAM
- PERIODIC ASSESSMENTS
  - REVIEW EFFECTIVENESS IN RESOLVING ISSUES
- REVIEWED AND ASSESSED
  - ADMINISTRATIVE PROCESSES
  - CLOSED ISSUES
  - SELECTED OPEN ISSUES

STATISTICS

- RIP - APRIL 1993
  - 167 ISSUES - 66 CLOSED
  - 1337 ACTION ITEMS - 787 CLOSED
- RIP II ASSESSMENT - MAY 1993
  - 48 CLOSED ISSUES
  - 6 OPEN ISSUES
  - ADMINISTRATIVE CONTROLS
  - 16 ADMINISTRATIVELY CLOSED ISSUES



METHODOLOGY

STEP ONE: SURVEY JAF EMPLOYEES

STEP TWO: SELECT AND ORIENT RIP II ASSESSMENT TEAM

STEP THREE: DEVELOP APPROACH

STEP FOUR: PERFORM ASSESSMENT

STEP FIVE: DOCUMENT RESULTS TO NLT

FINDINGS

- 48 CLOSED ISSUES ASSESSED
  - 45 PROPERLY CLOSED
  - 3 REQUIRED ADDITIONAL ACTIONS
- 6 OPEN ISSUES ASSESSED
  - APPROPRIATE ACTIONS TAKEN
  - SOME ADDITIONAL ACTIONS NEEDED FOR CLOSURE
- ADMINISTRATIVE CONTROLS
  - ADDITIONAL GUIDANCE TO ISSUE OWNERS
  - PROCEDURAL IMPROVEMENTS

CONCLUSIONS

- OVERALL PROGRAM IS EFFECTIVE IN RESOLVING ACTION ITEMS AND ISSUES THAT CONTINUE TO IMPROVE THE PERFORMANCE OF JAF.
- THE RECOMMENDATIONS AND COMMENTS ON SPECIFIC ISSUES NOTED IN THE REPORT SHOULD BE REVIEWED AND ACTION TAKEN AS APPROPRIATE.
- THE RECOMMENDATIONS ON ADMINISTRATIVE ENHANCEMENTS NOTED IN THE REPORT SHOULD BE REVIEWED AND ACTION TAKEN AS APPROPRIATE.

New York Power Authority

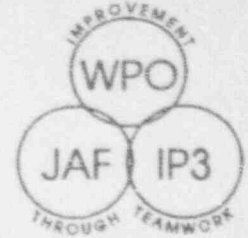
JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

RIP

ASSESSMENT

ACTIONS



PLANT OPERATIONS

- ELIMINATION OF OPERATOR WORK AROUNDS
- IMPROVEMENTS IN OPERATOR TRAINING PROGRAMS
- PROCEDURE IMPROVEMENT PROGRAM
- STAFFING
- COMMUNICATIONS

RES DEPARTMENT

- RADIOLOGICAL UPGRADE PROGRAM
- INDEPENDENT ASSESSMENT
- SELF ASSESSMENT
- WORKER FEEDBACK
- CHEMISTRY IMPROVEMENT PROGRAM

STRENGTHS

- COMPETENT STAFF
- COOPERATIVE PLANT STAFF
- PARTICIPATIVE MANAGEMENT

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

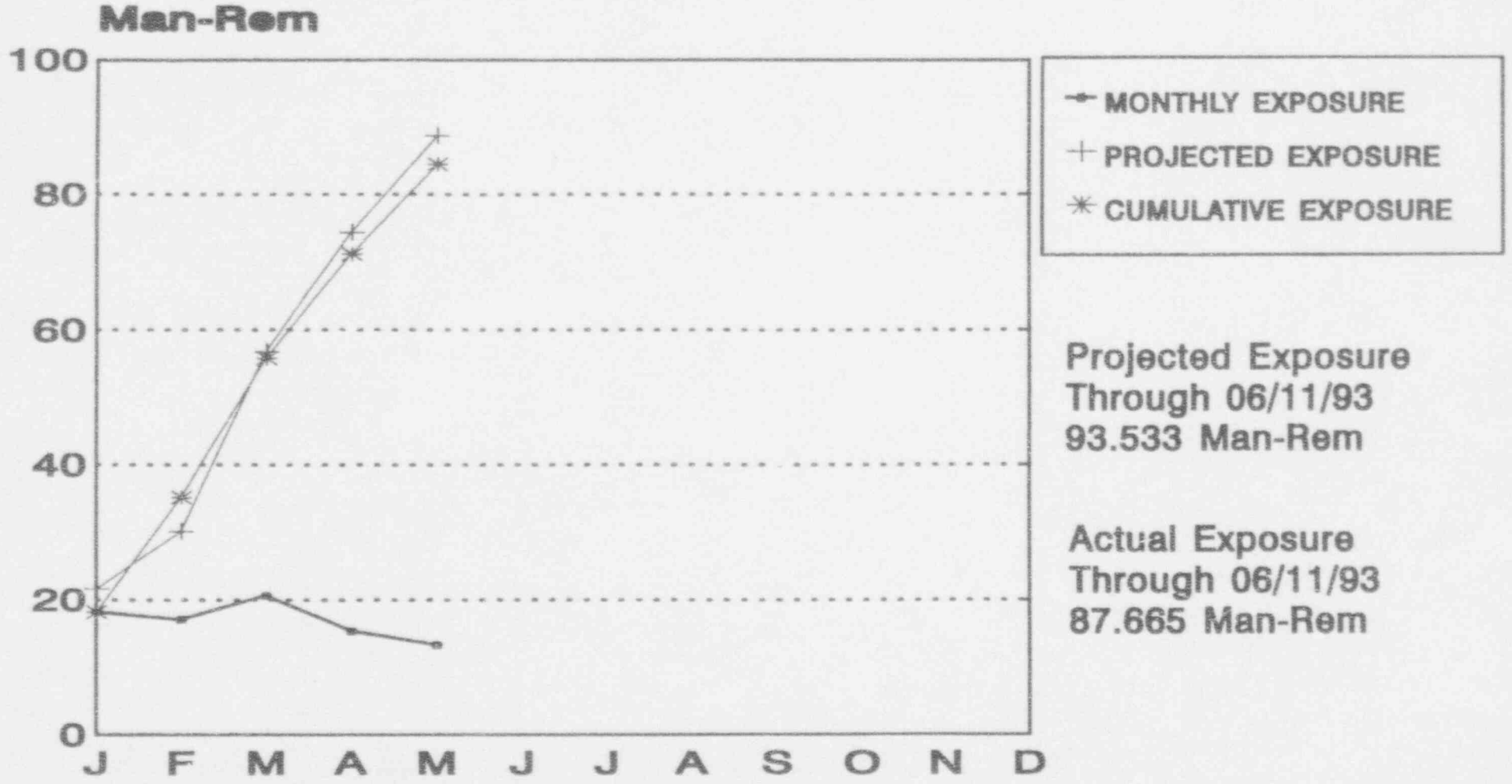
WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

GOALS

- NO REGULATORY SIGNIFICANT EVENTS
- EXPOSE RUNNING RATE < 200 REM
- >90% PLANT SPACES ACCESSIBLE IN STREET CLOTHES
- IMPROVED SUPPORT OF PLANT PROGRAMS
- AUTOMATED ACCESS CONTROL
- REVISED 10CFR20 IMPLEMENTATION SCHEDULE

1993 MAN-REM

TLD CUMULATIVE EXPOSURE vs MONTHLY EXPOSURE



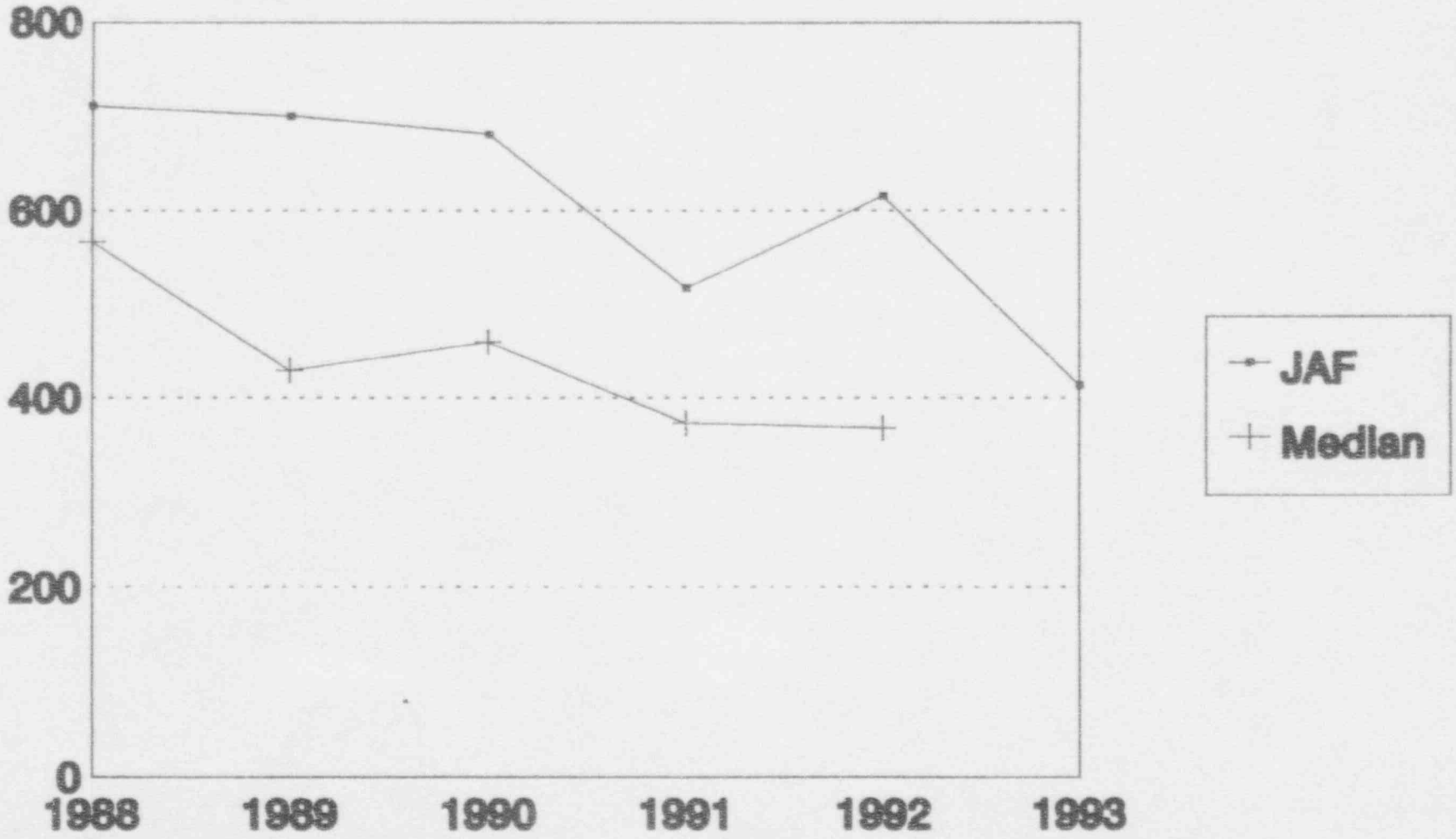
Projected Exposure
Through 06/11/93
93.533 Man-Rem

Actual Exposure
Through 06/11/93
87.665 Man-Rem

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

JAF COLLECTIVE RADIATION EXPOSURE

(Three Year Average)



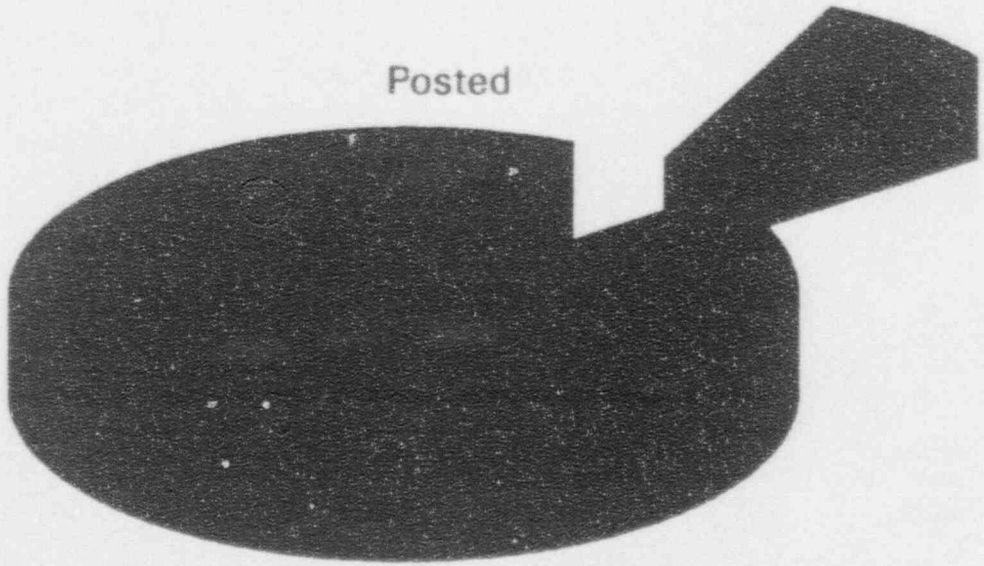
1995 Goals: Station 400; Industry < 255

Contamination Control

Contamination Events

Actual	0
'93 Goal	<12

Clean Area Gained In '93 (8%)



Clean As Of Dec '92

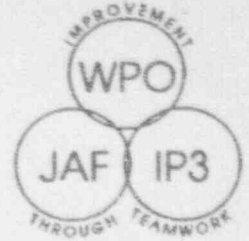
New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

IMPROVEMENT WPO JAF IP3 THROUGH TEAMWORK

MAINTENANCE

- WORK PACKAGE PLANNING
- SCHEDULING
- PLANT MATERIAL CONDITION
- NEW ADMINISTRATION BUILDING
- INTEGRATED MAINTENANCE MANAGEMENT SYSTEM (ROME)



I&C

- PLANNING
- WORK PRACTICES
- ACTION ITEMS
- COMMUNICATIONS
- PROCEDURES
- INSTRUMENT SETPOINT AND TOLERANCES
- PREVENTATIVE MAINTENANCE PROGRAM

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

IMPROVEMENTS IN TRAINING DEPARTMENT

- SIMULATOR HARDWARE UPGRADE AND UNINTERRUPTABLE POWER SUPPLY
- TRAINING INTERFACES
- TRAINING OVERSIGHT AND MONITORING
- SCHEDULING AND ATTENDANCE
- APPRENTICE TRAINING AND QUALIFICATION
- CONTRACTOR TRAINING AND QUALIFICATION

OPERATIONS REVIEW GROUP

- IMPLEMENTED ADMINISTRATIVE PROCEDURES
- COMPLETED ROOT CAUSE TRAINING
- DEVELOPED TRENDING SOFTWARE
- TRANSFERRED INDUSTRY OPERATING EXPERIENCE

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

SYSTEMS AND PERFORMANCE ENGINEERING IMPROVEMENTS

- IMPROVED COMMUNICATIONS
- IMPROVED SUPPORT OF OUR CUSTOMERS
- PROGRAM IMPROVEMENT INITIATIVES
- INPO RECOGNIZED "GOOD PRACTICES"

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

CONFIGURATION MANAGEMENT

- DEPARTMENT ROLES AND RESPONSIBILITIES
- TRAINING OF DEPARTMENT AND PLANT STAFF
- LABELING OF PLANT EQUIPMENT
- CONFIGURATION MANAGEMENT METHODOLOGY

EMERGENCY PLANNING

- IMPROVED OFFSITE COORDINATION
- IMPROVED TRACKING OF OFFSITE CORRECTIVE ACTIONS
- IMPROVED THE REVIEW PROCESS OF EMERGENCY PLAN ACTIVITIES

SECURITY/ SAFETY DEPARTMENT

- SAFETY
- ACCESS CONTROL
- FITNESS FOR DUTY
- SECURITY
- MEDICAL

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

IMPROVEMENT WPO JAF IP3 THROUGH TEAMWORK

LICENSING IMPROVEMENTS

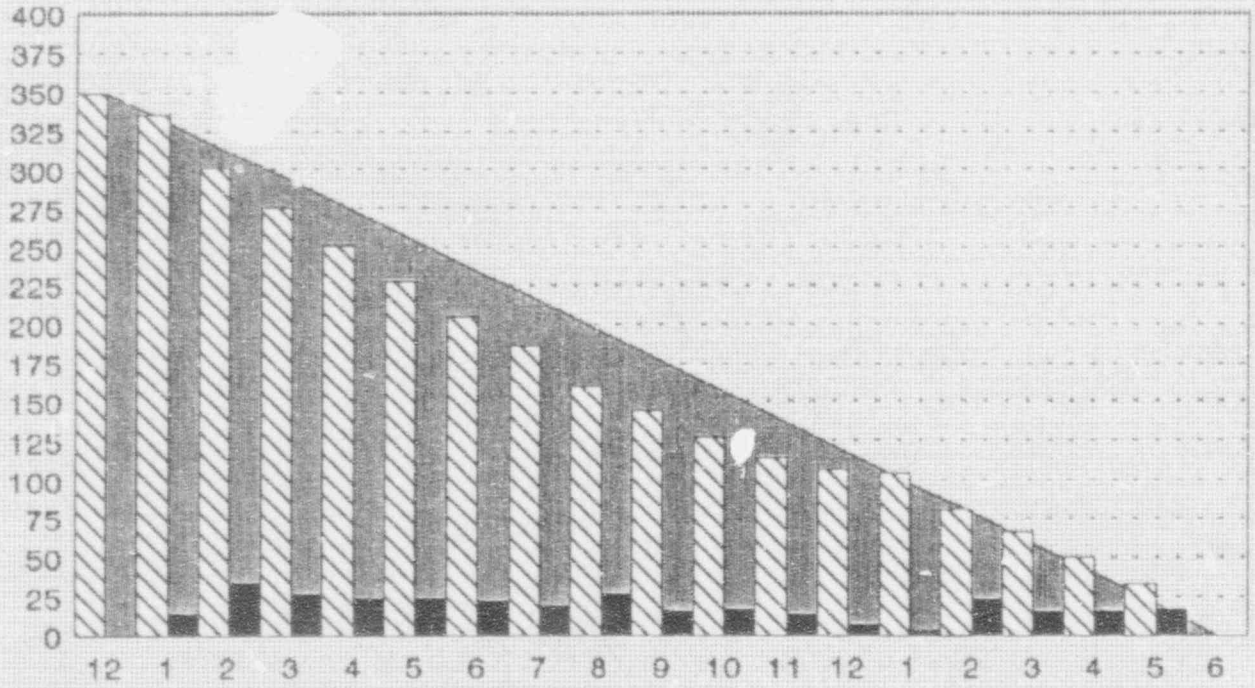
- STAFFING
- COMMUNICATIONS
- TRAINING AND QUALIFICATIONS
- CONCURRENCE PROCESS
- FINAL SAFETY ANALYSIS REPORT
- TECHNICAL SPECIFICATION AMENDMENT BACKLOG
- WORK CONTROL

ENGINEERING

- IMPROVED COMMUNICATIONS
- PLANNING & PRIORITIZATION
- EFFECTIVE USE OF ENGINEERING RESOURCES

Modification Closeouts

Installed Modifications Pre-1990 - 100% Design / Installed (Not Transferred)

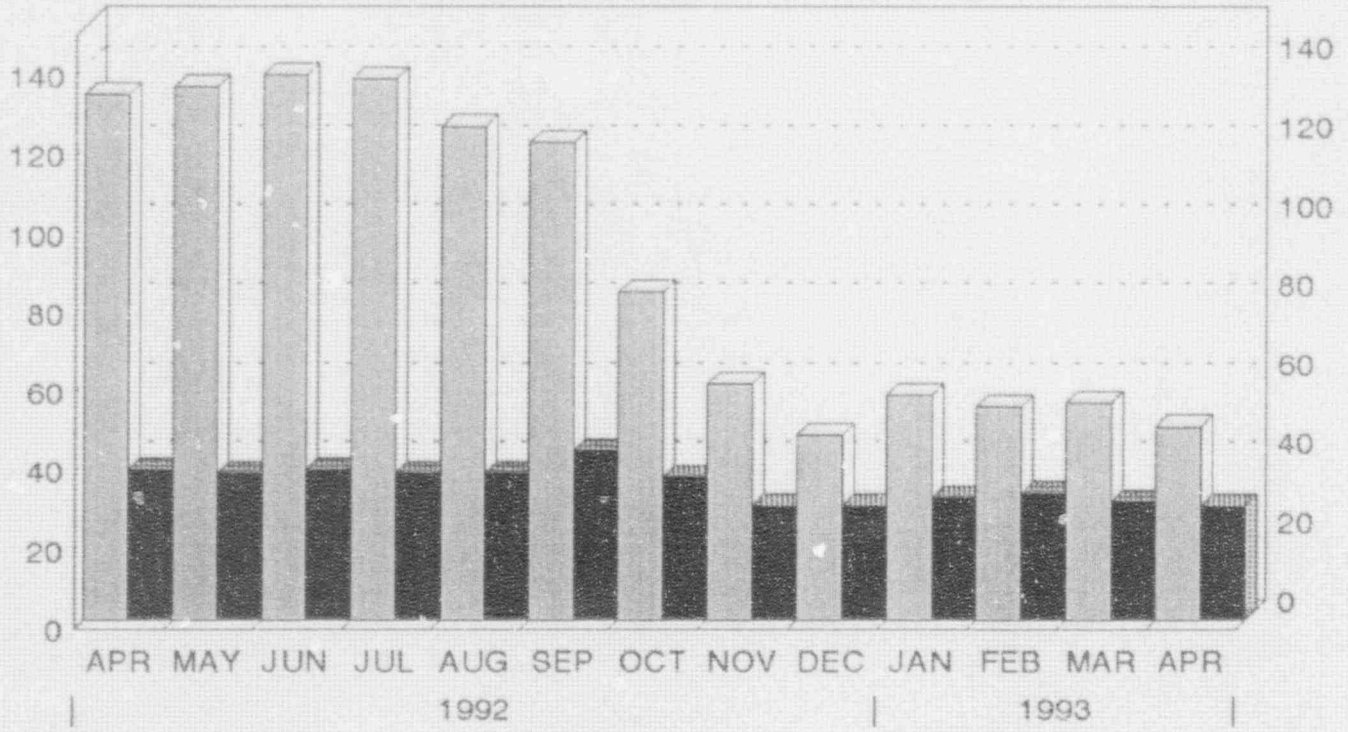


Open Mod's Goal	349	330	311	293	273	254	234	215	195	176	156	137	117	98	79	59	40	21	0
Mod's Closed Monthly		14	34	26	24	24	22	19	26	16	17	13	7	3	23	15	16	17	
Open Mod's Remaining	349	335	301	275	251	227	205	186	160	144	127	114	107	104	81	66	50	33	

1992 / 1993
NYPA / JAF

TEMPORARY MODIFICATION STATUS

Jumpers Reported On Monthly Basis



	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
TOTAL TEMP. MOD'S	133	135	138	137	125	121	83	60	47	57	54	55	49
TEMP. MOD'S > 1YR	38	37	38	37	37	43	36	29	29	31	32	30	29

NYPA/JAF
1992/1993

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
JAF IP3

QUALITY ASSURANCE IMPROVEMENTS

- TRAINING
- PROCEDURES
- PROGRAM INTEGRATION
- ORGANIZATION
- WORKING ENVIRONMENT
- MANAGEMENT

New York Power Authority

JAMES A. FITZPATRICK
NUCLEAR POWER PLANT

WPO
IMPROVEMENT THROUGH TEAMWORK
JAF IP3

NRC/NYPA

PUBLIC MEETING

RESULTS IMPROVEMENT ASSESSMENT

JUNE 15, 1993