

ENCLOSURE 5

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

INSPECTION REPORT 50-333/84-17

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

ASSESSMENT PERIOD: JANUARY 1, 1983 - JUNE 30, 1984

BOARD MEETING DATE, AUGUST 13, 1984

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TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION1
A. Purpose and Overview1
B. SALP Board Members1
C. Background2
II. CRITERIA4
III. SUMMARY OF RESULTS6
A. Overall Facility Evaluation6
B. Facility Performance7
IV. PERFORMANCE ANALYSIS8
A. Plant Operations8
B. Radiological Controls	11
C. Maintenance	14
D. Surveillance	17
E. Fire Protection/Housekeeping	19
F. Emergency Preparedness	20
G. Security and Safeguards	22
H. Refueling and Outage Management	24
I. Licensing Activities	26
V. SUPPORTING DATA AND SUMMARIES	29
A. Investigations and Allegations Review.	29
B. Escalated Enforcement Actions.	29
C. Management Conferences	29
D. Licensee Event Reports	30

TABLES

TABLE 1 - TABULAR LISTING OF LERS BY FUNCTIONAL AREA.	32
TABLE 2 - INSPECTION HOURS SUMMARY.	33
TABLE 3 - VIOLATION SUMMARY	34
TABLE 4 - INSPECTION REPORT ACTIVITIES.	38
TABLE 5 - LER SYNOPSIS.	41

I. INTRODUCTION

A. Purpose and Overview

The Systematic Assessment of Licensee Performance (SALP) is an integrated NRC staff effort to collect the available observations and data on a periodic basis and to evaluate licensee performance based upon this information. SALP is supplemental to normal regulatory processes used to ensure compliance to NRC rules and regulations. SALP is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to the licensee's management to promote quality and safety of plant construction and operation.

A NRC SALP Board, composed of the staff members listed below, met on August 13, 1984 to review the collection of performance observations and data to assess the licensee performance in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance." A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance at James A. Fitzpatrick Nuclear Power Plant for the period January 1, 1983 through June 30, 1984. It is noted that summary findings and totals reflect the current eighteen month assessment period.

B. SALP Board Members

- R. W. Starostecki, Director, Division of Project and Resident Programs (DPRP)
- H. B. Kister, Chief, Project Branch No. 2, DPRP
- S. J. Collins, Chief, Projects Section No. 2C, DPRP
- L. T. Doerflein, Senior Resident Inspector, J. A. FitzPatrick
- H. Abelson, Licensing Project Manager, ORB, No. 2, Office of Nuclear Reactor Regulation (NRR)
- J. P. Durr, Chief, Materials and Processes Section, Division of Engineering and Technical Programs (DETP)
- G. C. Lainas, Assistant Director, OR, NRR

Other Attendees

- W. J. Pasciak, Chief Effluent Radiation Protection Section, DETP (Part time)
- W. J. Lazarus, Project Engineer, RPS2C, DPRP
- P. A. Russ, Reactor Engineer, RPS2C, PPRP

C. Background

1. Licensee Activities

The facility operated at near full power from January 1, 1983 until June 3, 1983 with the exception of three unscheduled outages ranging in duration from one to seven days. The unscheduled outages involved repair to an auxiliary relay on a 345KV line protective relay which caused a turbine trip and reactor trip on January 9, 1983, replacement of three control rod drives following a reactor trip during surveillance testing on January 17, 1983, and cleaning a filter in the Electro-Hydraulic Control System which caused a plant trip on February 25, 1983.

From June 1983 until September 1983, the facility was involved in a scheduled major modification and refueling outage. Major modifications completed during the outage included the last phase of the Mark I Containment program, the long term Scram Discharge Instrument Volume modification, and some TMI Task Action Plan modifications.

Following the refueling outage, the facility again operated at near full power until the end of the assessment period with the exception of two scheduled and three unscheduled outages. The scheduled outages involved performance of Induction Heating Stress Improvement on recirculation system piping and a control rod drive replacement between March 3 and 15, 1984 and drywell inspections between June 22 and 25, 1984 in preparation for future maintenance and modifications. The unscheduled outages, each lasting two days, involved repairs to the reactor feed pumps which had caused plant trips on March 22 and 24, 1984, and cleaning filters and replacing servo control valves in the Electro-Hydraulic Control System which caused a plant trip on June 25, 1984.

2. Inspection Activities

One NRC resident inspector was assigned to the site during the entire assessment period and a second resident inspector was assigned until June 1983. The total NRC inspection hours for the period were 2932 hours (resident and region based) with a distribution in the appraisal functional areas shown in Table 2.

A special inspection on October 24 and 25, 1983, and three routine resident inspections on August 1, 1983 - September 5, 1983, September 6 - October 7, 1983, and March 1-31, 1984, examined the as-built and physical condition of safety related pipe supports and restraints.

A NRC Emergency Preparedness Inspection Team observed the full scale emergency exercise on October 11-13, 1983.

Tabulations of Violations and Inspection Activities are attached as Tables 3 and 4 respectively.

II. CRITERIA

Licensee performance is assessed in selected functional areas, depending whether the facility is in a construction, preoperational, or operating phase. Each functional area normally represents areas significant to nuclear safety and the environment, and are normal programmatic areas. Special areas may be added to highlight significant observations.

One or more of the following evaluation criteria were used to assess each functional area.

1. Management involvement and control in assuring quality
2. Approach to resolution of technical issues from a safety standpoint
3. Responsiveness to NRC initiatives
4. Enforcement history
5. Reporting and analysis of reportable events
6. Staffing (including management)
7. Training effectiveness and qualification

However, the SALP Board is not limited to these criteria and others may have been used where appropriate.

Based upon the SALP Board assessment each functional area evaluated is classified into one of three performance categories. The definitions of these performance categories are:

Category 1. Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used so that a high level of performance with respect to operational safety or construction is being achieved.

Category 2. NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and reasonably effective so that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety or construction is being achieved.

The SALP Board has also categorized the performance trend over the course of the SALP assessment period. The categorization describes the general or prevailing tendency (the performance gradient) during the SALP period. The performance trends are defined as follows:

Improved: Licensee performance has generally improved over the course of the SALP assessment period.

Same: Licensee performance has remained essentially constant over the course of the SALP assessment period.

Declined: Licensee performance has generally declined over the course of the SALP assessment period.

III. SUMMARY OF RESULTS

A. Overall Facility Evaluation

During the previous assessment, improvements in plant operations and radiation protection functional areas were noted which resulted in improved performances from Category 3 to Category 2 in these areas.

During the current assessment period continued improvements were noted in these functional areas. Management involvement in day to day plant operations was evident. Improvements in areas such as training, staffing, and housekeeping reflect management's positive attitude and commitment toward safe and efficient plant operation. Additionally, during this assessment period the facility achieved its longest continuous run and has maintained a high availability factor for the current operating cycle. These accomplishments are attributable to the quality and professionalism of the staff and are indicative of the positive trend in the area of plant operations. Noted improvements in the area of radiation protection include the implementation of an aggressive and effective ALARA program and increased staffing.

Aggressive management involvement in the planning and control of outage activities, an effective housekeeping program, and improved fire brigade training have resulted in high levels of performance in the refueling and fire protection functional areas. This assessment also documents continued strong plant performance in the area of security and safeguards.

A decline in the assessment conclusion for Emergency Preparedness resulted from the 1983 emergency exercise review. Decreased attention in this area was apparent as the drill scenario was not finalized until the day of the exercise and the concerns which resulted from our review this exercise were not resolved in a timely manner.

Our assessment noted numerous personnel errors within the performance of surveillance testing. This is indicative of a negative trend in this functional area. Increased management attention to effective corrective action is warranted to ensure satisfactory implementation of the surveillance program.

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B. Facility Performance

<u>Functional Area</u>	<u>Category Last Period</u> (January 1, 1982 - December 31, 1982)	<u>Category This Period</u> (January 1, 1983 - June 30, 1984)	<u>Trend</u>
1. Plant Operations	2	2	Improved
2. Radiological Controls	2	2	Improved
3. Maintenance	2	2	Same
4. Surveillance	2	2	Declined
5. Fire Protection/ Housekeeping	2	1	Improved
6. Emergency Preparedness	1	2	Declined
7. Security & Safeguards	1	1	Same
8. Refueling & Outage Management	Insufficient Basis*	1	Not Determined
9. Licensing Activities	2	2	Same

*The refueling outage occurred during an overlap of the previous two SALP periods and as a result the refueling area was not considered by the last SALP board.

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5. Fire Protection/ Housekeeping	2	1	Improved
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7. Security & Safeguards	1	1	Same
8. Refueling & Outage Management	Insufficient Basis*	1	Not Determined
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IV. Performance Analysis

A. Plant Operations

1. Analysis

During the previous assessment period problems were identified in the areas of records management, drawing control, safety review committee audit implementation, on site audit performance and experience, licensed operator and the general employee training, and the quality of Licensee Event Reports.

During the current assessment period this functional area was under continuous review by the resident inspector. There was consistent evidence of management awareness and involvement in plant operations and improvement was noted in this area. The licensee continues to conduct daily planning meetings, and establishes and tracks departmental goals. Management personnel are routinely observed making plant tours. Significant effort continues to be spent on housekeeping and the general appearance of the plant is very good. Other initiatives such as posting controlled operator aids (drawings, graphs, tables etc.) throughout the plant, improved system labeling, improved valve lineup checklists, implementation of specific operating logs, and the decontamination of areas such as the control rod drive pump cage, the refuel floor, and the crescent areas have enhanced plant operations and reflect the positive attitude of management.

Early in the assessment period there were NRC findings of failure to audit Limiting Conditions of Operation and failure of a Quality Assurance audit to identify the lack of a procedure for inspecting piping fire barrier penetrations. These were indicative of the problems with effectiveness of site Quality Assurance audits noted during the previous assessment. However, during the current assessment period licensee initiatives were noted in this area. Additional Quality Assurance auditors and Quality Control inspectors were hired, including a licensed Senior Reactor Operator to improve audit effectiveness in the areas of operations and surveillance testing.

In response to previous NRC findings, the corporate Quality Assurance and Reliability Department has begun performing appraisals of site activities. Additionally, late in the assessment period a new Quality Assurance Superintendent was assigned. The Quality Assurance Department plays an active role in plant activities as evidenced by their involvement in pipe support reviews, record indexing, and the Technical Specification and surveillance test verification program. During routine inspection of Salem ATWS follow activities, it was noted that the licensee's Quality Assurance Category list was adequate and that the Quality Assurance Department

reviews all work requests and purchase orders for proper classification. Another strength is the new policy that only Quality Assurance personnel can close out a Category I work request to ensure that the package and documentation are complete.

The licensee has taken steps to improve drawing control and records management. A records management procedure has been implemented and corporate and site record retention schedules have been developed. These records are routinely entered into the computer records management system. The archival records have been indexed and construction of the records storage vault is well underway. Completion of the vault with the records stored is scheduled for the end of October 1984. The as-built drawings effort update continues with the majority of the update work committed to for 1983 complete. The inspector reviewed several of these updated drawings with no significant discrepancies identified.

The licensee has displayed a strong commitment to operator training. The training staff is large and has been effective in screening and preparing licensed operator candidates. During this assessment period 22 Senior Reactor Operator and 14 Reactor Operator licensing examinations were conducted and all candidates passed. No generic deficiencies were noted in either the oral or written examinations and the scores were generally above the industry average. An evaluation of the facility written requalification examinations indicated that they exceeded NRC requirements. The large number of successful licensed operator examinations has resulted in ample operations department staffing. The effectiveness of the training program is also reflected by the fact that there were very few personnel errors resulting in operational problems, in spite of the large number of new operators assigned during the assessment period. Other indications of a positive management attitude include the licensee program for providing college level technical training for all Senior Reactor Operators and the inclusion of nonoperations department personnel, such as the Maintenance Superintendent and assistant Radiological and Environmental Services Superintendent, into the licensed operator training program to provide a well rounded staff.

Early in the assessment period problems were noted with Licensee Event Reports (LERs). These problems included failure to submit an LER, late LER's, reporting two events on one LER, and other administrative errors. In an effort to improve performance the licensee assigned a single individual to handle LERs. Improvements have since been noted in the description and quality of LERs, particularly those submitted after the new LER reporting requirements took effect. Although most event causal analysis

and corrective actions have been adequate, a few instances of marginal analyses have occurred. Examples of events where the analysis was marginal involve the Main Steam Line Radiation Monitors and a High Pressure Coolant Injection System high level switch. Each was the subject of three LERs before an adequate analysis to determine root cause was initiated.

As with LER analyses, reviews of operational events occasionally exhibited a lack of depth. Certain instances arose in which a thorough analysis was conducted only after the inspector raised concerns to onsite management. Examples include licensee reluctance to declare the Core Spray Pump Minimum Flow Valve inoperable and leaving the High Pressure Coolant Injection System (HPCI) steam supply outboard isolation valve in the open position without performing adequate justification reviews. However, positive management attitudes generally reflect a commitment for safe and efficient plant operations. These attitudes were most notable during the resolution of pipe support adequacy concerns.

Resulting from internal reviews, the licensee recognized a weakness with how various operating experience information was processed (IE Circulars and Bulletins, G.E. SILs, INPO SOERs, etc.). As a result, he has implemented a program to ensure that proper review, analysis and action occur for each operational experience item received. During this assessment it was noted the licensee had implemented neither all the recommendations of an IE Circular nor the actions committed to in response to an IE Bulletin, both of which were issued well before the beginning of this assessment period. Additionally, problems experienced with cracking of the HPCI turbine stop valve had been identified by a vendor Service Information Letter issued well before the beginning of this assessment period. As a result of such problems noted with old operating experience information, the licensee has incorporated previously received information into the program. This has resulted in a large backlog of operating experience material to be reviewed.

2. Conclusion

Category 2, improved. The licensee continues to improve performance in this area, a positive trend is evident.

3. Board Recommendation

Licensee - Increase management attention to ensure adequate trending and analysis of operational events and to reduce the backlog of operating experience reviews.

NRC - Conduct routine inspection program. Senior Resident conduct an evaluation of the Plant Operating Review Committee and the Safety Review Committee activities.

B. Radiological Controls

1. Analysis

During the previous assessment period an improvement was noted, however the lack of a formal ALARA (As Low As Reasonably Achievable) Program was identified as a significant weakness. Other weaknesses identified related to inadequate staffing and slowness in correcting Health Physics Appraisal (HPA) identified program deficiencies. Four minor violations were identified, but were not symptomatic of programmatic problems.

During this period there were five routine inspections and two team inspections by radiation specialists which examined the licensee's radiation protection, transportation, radioactive waste management, and environmental monitoring programs. In addition there was one inspection involving representatives from the State of Washington regarding a transportation incident.

During the current assessment period the licensee's radiation protection program has continued to show some improvement. By April 1984 the licensee had implemented an aggressive and effective ALARA program. A total man-rem dose reduction of 10% has been achieved and a goal established for an additional 30% during the 1985 spring outage.

In March 1983 a significant program weakness regarding control of personnel dosimetry was identified. By June 1983 the licensee had resolved the issues in a technically sound and thorough manner. However, there is a concern that the licensee should have identified this weakness through proper reviews and thorough investigations of Unusual Incident Reports prior to an NRC inspection.

Reviews have noted that procedures are occasionally violated or are not prepared when required as illustrated by: work performed on a contaminated system without an RWP; air sampling was inadequate to assess the hazards during several jobs; there is no policy or procedure regarding visitor access to radiation areas; MPC-hour assignments were not properly evaluated, and protective suits and hoods were used assuming a protection factor without ensuring all prerequisites were met. These isolated instances of procedure violations may be attributed to an ineffective audit program to review procedures for implementation compliance.

One NRC team inspection reviewed certain aspects of the licensee's Radioactive Waste Management program, including liquid and gaseous effluents, effluent monitor operability and calibrations, and review of licensee's procedures for management of radioactive effluents. Additionally, the resident inspector performed routine reviews in this program area. Based on these reviews, the licensee appears to be implementing an adequate and effective Radioactive Waste Management program.

The Augmented Off Gas System has not been made operational, with the revised commitment date for operation now set for February 1985. In addition, the licensee review of radwaste storage areas has not been completed. These items indicate a need for more direct management involvement in establishing and meeting commitments.

One onsite inspection of the licensee's Radiological Environmental Monitoring Program (REMP) was conducted by a radiation specialist. During this review it was determined that the licensee's audits of its REMP were generally complete, although lacking somewhat in depth. These audits determined that a procedure existed to satisfy each specific Environmental Technical Specification requirement, and that sampling frequency was being satisfied, but did not address the adequacy of these procedures. The licensee's records in this program area were generally complete, well maintained, and thorough. However, records of collection and analysis of samples had not been completely updated in 1983 (a complete record was available for 1982).

Reportable events related to the radiological environmental monitoring program have been promptly and completely reported. The events were properly identified and analyzed. In each instance, liquid effluent levels were well within Technical Specification limits, and the dose consequences were negligible.

Within the Radiological Environmental Monitoring Program staff, positions are identified, and authorities and responsibilities are well defined.

A defined REMP training program exists, but appears to have been ineffectively applied for the technician positions in the environmental laboratory. In general, technicians were not required to be authorized or specifically approved for the particular procedures they perform.

The licensee is currently revising the training program to include the certification of technicians for the performance of specific procedures. Overall the licensee appears to be implementing an effective Effluent Monitoring and Control Program.

One inspection by a Region I Specialist was conducted in the transportation program area during the assessment period. The resident inspector routinely reviewed ongoing transportation activities. Three minor violations were identified which do not suggest a programmatic breakdown.

The review of the transportation program staffing and organization structure indicated that all positions are identified, and authorities and responsibilities are well defined.

Procedures in the transportation area are generally complete, well maintained, available, and have been revised to reflect the changes in 10 CFR 71 effective September 6, 1983 and the DOT regulation effective July 1, 1983. The licensee's action in this area demonstrated the ability to conduct prior planning and assignment of priorities. In contrast, however, as of May, 1984 the licensee had not incorporate changes into procedures relating to 10 CFR 61, and changes thereto effective December 27, 1983. This suggests lack of management involvement in assuring quality in a few isolated areas. Additionally, the inspection identified lack of a procedure to initiate an investigations after failure to receive a receipt for a waste shipment within the prescribed time period.

The review of the licensee's quality assurance audits, as related to transportation, indicated that the licensee was performing audit reports in accordance with licensee Technical Specifications which are usually complete and thorough. Actions in response to audit reports were timely and thorough.

The review of training in transportation activities indicated that training and retraining is defined and implemented for a large portion of the staff and in most of the important subject areas. One important area that was omitted was the failure to provide training for certain technicians in changes to DOT regulations. The licensee independently recognized this and is in the process of reviewing a vendor proposal for upgrading training.

2. Conclusion

Category 2, improved. The licensee has continued to make improvements in this area.

3. Board Recommendation

Licensee - Devote additional attention to improving the depth of internal audits and to meeting commitments for correction of the remaining HPA deficiencies.

Procedures in the transportation area are generally complete, well maintained, available, and have been revised to reflect the changes in 10 CFR 71 effective September 6, 1983 and the DOT regulation effective July 1, 1983. The licensee's action in this area demonstrated the ability to conduct prior planning and assignment of priorities. However, the inspection identified lack of a procedure to initiate an investigations after failure to receive a receipt for a waste shipment within the prescribed time period.

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2. Conclusion

Category 2, improved. The licensee has continued to make improvements in this area.

3. Board Recommendation

Licensee - Devote additional attention to improving the depth of internal audits and to meeting commitments for correction of the remaining HPA deficiencies.

C. Maintenance

1. Analysis

During the previous assessment period the lack of a formal preventive maintenance program was identified as a significant weakness. Problems were also identified with the lack of departmental administrative controls, lack of quality control hold points in maintenance procedures, and lack of a formal training program for maintenance personnel.

During this period this area was under continual review by the resident inspector. No programmatic inspection of maintenance was conducted during the current assessment period. Three additional inspections were performed. Two of these examined pipe supports and the Main Steam Isolation Valve Leakage Control System modifications which were completed prior to this assessment period. The third examined the licensee's response to Generic Letter No. 83-28 (Salem ATWS Events).

During this assessment period several improvements were noted in this functional area. The department staffing was found to be sufficient and with the exception of the preventive Maintenance Supervisor, all positions are currently filled. The maintenance department was re-organized just prior to the start of this assessment period which created more first line supervisors and has resulted in better work tracking, improved communications, and a more effective organization. A training program, which includes theory and generic skills training, has been implemented. The licensee is building training laboratories for the mechanics and electricians and plans to implement qualification cards for on-the-job training. A violation early in the assessment period for failure to control test and measuring equipment was indicative of the inadequate administrative controls identified during the previous assessment. However, the licensee made significant improvements in this area during this period as evidenced by improved administrative controls for test and measuring equipment as well as for biennial procedural review and control of the maintenance contractor.

There are four areas which the licensee management has initiated improvement programs: 1) implementation of a formal preventive maintenance program, 2) incorporation of Quality Control hold points in the maintenance procedures, 3) control of vendor technical manuals, and 4) improved control over post maintenance testing.

The licensee's program to control corrective maintenance is adequate and limited preventive maintenance activities are routinely performed. However, no formal preventive maintenance program for installed or stored safety-related equipment has been implemented. The licensee has developed and approved an upgraded preventive maintenance program

which will involve computer scheduling and control and anticipates that a working preventive maintenance program will be in place by early 1985. The licensee has also established a task force to study and make recommendations on a corporate preventive maintenance program. In a related area, the licensee has recently developed a procedure for control of equipment history and has started entering data into this manual system. The licensee has also been installing an integrated maintenance system which will replace the above described systems. This Computer Operated Material Management System (COMMS) will ultimately be used to schedule preventive maintenance, issue work requests for preventive and corrective maintenance, maintain equipment history and control stock inventory and procurement. There appears to be a strong commitment to a preventive maintenance program by both site and corporate management, however, progress in this area has been slow.

A weakness identified during the previous assessment period was the lack of Quality Control hold points and detailed checklists in maintenance procedures. Presently, the Quality Assurance department is actively pursuing the development of specific checklists for incorporation into the maintenance procedures and use as Quality Control Inspection Reports (QCIRs). During the refueling outage it was noted that preoperational procedures and revised maintenance procedures had included such hold points and that they were adequate. The inspector has also noted during other maintenance that job specific QCIR's were available and adequate. The licensee has hired a contractor to re-write all maintenance procedures and incorporation of the hold points will be part of this effort which is expected to be completed by the middle of 1985 in accordance with a commitment made to the NRC.

The licensee has established a technical library and is in the process of verifying and updating all vendor technical manuals. A program to control technical manuals and the completion of the above effort are expected by the end of 1984.

During this period there was one violation for inadequate post maintenance testing, resulting from the failure to perform scram time testing following control rod drive replacement. The licensee's controls in this area are weak in that there is very little guidance provided to the shift supervisors who are responsible for determining and performing adequate post maintenance testing. The licensee recognizes this weakness and is developing generic and specific guidance to provide better control over post maintenance testing.

2. Conclusion:

Category 2, same

Licensee initiatives in this area are noteworthy, however, implementation of a formal preventive maintenance program has yet to be realized.

3. Board Recommendation

Licensee - Expedite implementation of the preventive maintenance program.

NRC - Continue to monitor progress toward establishment of a formal preventative maintenance program and control over post maintenance testing.

D. SURVEILLANCE

1. Analysis

This functional area includes a discussion of the Inservice Test (IST) area. Section H contains a discussion of Inservice Inspection (ISI) performance.

The previous SALP evaluation identified the need for continued management attention to improve the training provided for new operators and technicians involved in surveillance testing and to ensure the timely completion of corrective action for identified problems, such as the IST program, an area in which there have been several outstanding unresolved items.

In general the licensee's surveillance program is well defined utilizing computerized schedules, and technically adequate procedures. The surveillance schedules and test results are reviewed at the appropriate levels of management.

During this assessment period there were several incidents which indicate a negative trend in the effective implementation of the surveillance program. Examples of these incidents include the improper calibration of the drywell pressure switches, failure to establish and implement a procedure for inspecting pipe fire barrier penetration seals, three missed surveillance tests, and the imposition of a twenty four hour Limiting Condition for Operation when two technicians calibrated Reactor Core Isolation Cooling System instrumentation, rendering that system inoperable, when they should have been calibrating instrumentation on the out of service High Pressure Coolant Injection System.

The licensee's analysis of these incidents have been adequate and corrective actions are in progress. Major emphasis has been placed on the training of technicians. Recurring personnel errors are indicative of slow progress in achieving effective on-the-job training. A program which includes formal classroom instruction and hands-on training was begun early in the assessment period consisting of theory and plant specific information. The licensee has completed Phase I of this training and is starting the generic skills training using a recently acquired training laboratory. Qualification cards are to be implemented in the near future. Due to the length of time needed to complete this training the licensee has found it necessary to implement a short plant awareness training session. An additional corrective action has been the implementation of spot checks by supervisors during the performance of surveillance testing, the effectiveness of which remains to be determined.

The licensee has been slow in establishing an effective Inservice Testing Program (IST) for pumps and valves as exhibited by an inspection early in the period which found two deviations. One was against the ASME B&PV Code Section XI for failure to establish maximum stroke times for 50 power operated valves and failure to establish pump testing acceptance criteria for 15 pumps. The second was against a licensee commitment for failure to include all safety related valves in the IST program.

The Supervisor of Plant Performance and Reliability is responsible for the IST program. This position was not filled by the licensee until the middle of the assessment period. In addition, changes affecting the program, such as adding valves, revising pump acceptance criteria, purchasing sufficient data collecting instruments, and providing guidance on recording same types of data, were not implemented until late in the assessment period.

2. Conclusion:

Category 2, declined. Numerous personnel errors indicates a negative trend in the implementation of the Surveillance Testing program.

3. Board Recommendations

Licensee - Management attention is required to ensure proper performance of surveillance testing, implementation of effective on-the-job training, and proper implementation of the IST program.

NRC - Conduct follow-up inspection of IST program content and implementation.

E. Fire Protection/Housekeeping

1. Analysis

This area was routinely reviewed this assessment period, in addition a programmatic inspection was performed. No Appendix R inspection has yet been conducted.

Overall authority and responsibility for the administration of the Fire Protection Program rests with the Resident Manager. Implementation of the program is carried out by the Operations, Maintenance, and Training Departments. A Fire Protection Supervisor is assigned to provide technical and practical assistance on fire protection matters and to assist in the implementation of the program. His duties and responsibilities are well defined.

The operations department performs the surveillance testing on fire protection systems and in general this testing is well controlled and documented. One deficiency was noted in that the licensee had not established or implemented a procedure for inspecting piping fire barrier penetration seals. This is an additional example of the problems identified in the overall control of surveillance testing discussed in the Surveillance analysis Section D of this report.

The fire brigade is composed of operations and security personnel and the staffing is ample. A review of fire brigade training indicated that the program was well defined and that required training was being conducted. The licensee has made arrangements with a local fire department for use of training facilities and has eliminated the problems in completing refresher training noted in the previous assessment.

The licensee's fire protection program procedures, for control of combustibles and control of welding, cutting and grinding, were reviewed and found to be adequate. Routine reviews of the implementation of these procedures during outages and normal operations indicated that they were properly followed. One LER in this area reported that a fire barrier penetration seal was opened without establishing a fire watch. The licensee's analysis of the event was accurate and the corrective action taken was determined adequate based on the lack of repetition.

The licensee has a strong commitment to an effective housekeeping program and has been aggressive in improving plant cleanliness which contributes to a strong fire protection program.

2. Conclusion:

Category 1, improved.

3. Board Recommendation

NRC - Continue routine inspection program.

F. Emergency Preparedness

1. Analysis

During the previous assessment period, no significant weakness was identified and this area was assessed as Category 1.

During the current eighteen month assessment period, beginning January 1, 1983, four inspections were performed in the area of Emergency Preparedness, one inspection included observation of the annual emergency preparedness exercise. No violations were identified.

On March 2-4, 1983, a special safety inspection (50-333/83-05) of the public notification system (PNS) was performed. The inspector found good management involvement and control in assuring quality. Records of siren locations and test schedules were well maintained and available. Design and location of the PNS system was verifiable.

On September 28-29, 1983, an announced follow-up inspection (50-333/83-22) of unresolved items from the Emergency Preparedness Implementation Appraised was performed. The licensee was found to be responsive to NRC initiatives in that all of the six Appendix A items and all of the 34 Appendix B items of prior appraisal 50-333/82-03 and IR 50-333/83-05 issues were verified as corrected.

On October 11-13, 1983 a routine observation and inspection (50-333/83-23) of the licensee's annual emergency preparedness exercise was performed. There was evidence of a decline in prior planning and assignment of priorities in that the exercise scenario was not finalized until the day of the exercise. This may be attributed to the past practice of relying on one full-time on-site individual to coordinate all site Emergency Preparedness activities. An additional staff member has recently been assigned full-time to assist in this area. Licensee initiatives to increase on-site staff support are commendable. The licensee however, clearly understands technical issues from a safety standpoint, as indicated by his conduct of the exercise.

On May 21-25, 1984, an unannounced routine emergency preparedness inspection (50-333/84-10) was performed. Reviews indicated that training records and audits generally were complete, available and sufficiently maintained. However, a review of IR 83-23 identified items noted that only one of four NRC initiatives had been fully resolved.

During the early part of the assessment period, adequate licensee performance in emergency preparedness was evident. During the latter part of the assessment period, licensee response to NRC initiatives declined.

F. Emergency Preparedness

1. Analysis

During the previous assessment period, no significant weakness was identified and this area was assessed as Category 1.

During the current eighteen month assessment period, beginning January 1, 1983, four inspections were performed in the area of Emergency Preparedness, one inspection included observation of the annual emergency preparedness exercise. No violations were identified.

On March 2-4, 1983, a special safety inspection (50-333/83-05) of the public notification system (PNS) was performed. The inspector found good management involvement and control in assuring quality. Records of siren locations and test schedules were well maintained and available. Design and location of the PNS system was verifiable.

On September 28-29, 1983, an announced follow-up inspection (50-333/83-22) of unresolved items from the Emergency Preparedness Implementation Appraisal was performed. The licensee was found to be responsive to NRC initiatives in that all of the six Appendix A items and all of the 34 Appendix B items of prior appraisal 50-333/82-03 and IR 50-333/83-05 issues were verified as corrected.

On October 11-13, 1983 a routine observation and inspection (50-333/83-23) of the licensee's annual emergency preparedness exercise was performed. There was evidence of a decline in prior planning and assignment of priorities in that the exercise scenario was not finalized until the day of the exercise. This may be attributed to the past practice of relying on one full-time on-site individual to coordinate all site Emergency Preparedness activities. An additional staff member has recently been assigned full-time to assist in this area. Licensee initiatives to increase on-site staff support are commendable. The licensee however, clearly understands technical issues from a safety standpoint, as indicated by his conduct of the exercise.

On May 21-25, 1984, an unannounced routine emergency preparedness inspection (50-333/84-10) was performed. Reviews indicated that training records and audits generally were complete, available and sufficiently maintained. A review of IR 83-23 identified items noted that one of four NRC initiatives had been fully resolved, two of the items were reviewed in 'draft' form with full resolution scheduled for prior to the July 1984 exercise. The remaining item (method for developing total population dose) was discussed and a long-term resolution commitment date of December 1984 was assigned.

2. Conclusion

Category 1, same

2. Conclusion

Category 2, declined

3. Board Recommendations

NRC - Monitor licensee actions to improve site staffing level in support of Emergency Preparedness activities.

Conduct routine reviews to verify resolution of identified NRC initiatives.

3. Board Recommendations

NRC - Monitor licensee actions to improve site staffing level in support of Emergency Preparedness activities.

Conduct routine reviews to verify resolution of identified NRC initiatives.

G. Security and Safeguards

1. Analysis

During the previous assessment, no significant weaknesses were identified, and the licensee's performance in this area was assessed as Category 1.

Three routine unannounced physical security inspections and continuing inspections by the resident inspectors were conducted during the assessment period. No violations were identified. The last five physical security inspections have been clear and the NRC has not identified a major security violation at Fitzpatrick since 1979. There are no outstanding security items.

During this assessment period, it was evident that corporate management was deeply involved in audits, reviews, and future update and modification planning. Two new CCTV cameras were procured to upgrade alarm assessment capability and additional shoulder weapons were added to the security arsenal. Annual security audits were complete and responses timely. The corporate security manager usually attends the NRC security inspection exit meeting. Records were generally complete, well maintained and easily retrieved. However, record reviewers missed some omissions and errors in daily logs and records. Attention should be directed to ensure that records are properly reviewed so that significant items are not overlooked.

The licensee has been very responsive to NRC initiatives. A microwave detection system is being installed in certain areas to correct potential weaknesses in the current system that were identified by the NRC. Within a week of an NRC physical security inspection, three trees, whose growth was beginning to degrade assessment capability in the protected area, were removed.

No security event reports were submitted during the assessment period.

Staffing was ample and all vacancies were promptly filled. Positions are identified and responsibilities clearly defined. Guard morale appeared high and all interviewed were satisfied with their schedule. The training program is 100% "in house" with two security supervisors dedicated to security training, it is well planned and carried out. In addition to the required training, security coordinators and sergeants attended drug and alcohol seminars, seminars on aberrant behavior, and management classes. The Superintendent of Security and the Security Supervisor attended several security seminars hosted by the American Society of Industrial Security. Training records are well organized and maintained. Fitzpatrick is one of the few licensees that has its own indoor firearms training range. These initiatives are a credit to management's commitment to security training and plant safety.

2. Conclusion

Category 1, same.

3. Board Recommendations

None

H. Refueling and Outage Management

1. Analysis

The resident inspector reviewed the 1983 refueling outage preparations and activities. Activities during the March 1984 scheduled maintenance outage were also reviewed during routine inspections by the Resident Inspector. In addition, there was one health physics inspection early during the refueling outage and three region based inspections on In-service Inspection (ISI) related to recirculation system pipe cracking. There were no violations associated with outage activities.

During this assessment period, outage activities were well planned and controlled. The outage progressed smoothly and incorporated unforeseen work. This is attributed in part to the daily management planning sessions. For much of the refueling outage the licensee used two shifts of management personnel to ensure problems received the necessary attention and decision making was at an adequate level. Management personnel were frequently observed in the plant, including normally inaccessible areas, monitoring work progress. Improved management involvement was also noted in the preparations for power operation resumption. For example, a licensed Senior Reactor Operator was in charge of system valve lineups. This resulted in an improved knowledge of system status, better quality records, and a more timely review of these records. This was a noted improvement from the previous refueling outage. A two day management critique of the outage was held to examine lessons learned.

The radiation protection area was found to possess sufficient staffing levels and the training of technicians was adequate. In addition, it was noted that the licensee was aggressive in reducing personnel exposure, particularly by establishment of engineering controls to reduce airborne radioactivity in work areas.

During the refueling and maintenance outages, the licensee examined recirculation system welds for Intergranular Stress Corrosion Cracking (IGSCC). Although there were some initial problems with the quality of ISI data presented for review, aggressive involvement and control of the ISI vendor by the licensee resulted in significant improvement in the areas of ultrasonic examination data recording and result evaluation. Improved training of nondestructive examination personnel, including the licensee's Level III individual, resulted in the ability to effectively detect and size IGSCC. The analysis and evaluations of the two indications classified as IGSCC were found to be acceptable. The licensee has elected to perform Induction Heating Stress Improvement (IHSI) on recirculation system welds, which illustrates responsive engineering and an aggressive approach to address resolutions of industry issues.

The licensee has been responsive to NRC concerns. After IEB 84-01 regarding cracks in BWR MK1 containment vent headers was issued, the licensee performed extensive visual inspections beyond IEB requirements. Additionally, in response to NRC expressed concerns over the adequacy of the licensee's plan to replace only one of the station batteries due to cell jar cracking, the licensee purchased and replaced both station batteries.

2. Conclusion

Category 1, no previous period conclusion.

The licensee continues to exhibit strong planning capabilities and the ability to address and resolve technical issues noted during outage activities.

3. Board Recommendations

NRC - Continue routine inspection program during outages.

I. Licensing Activities

1. Analysis

The basis for this appraisal was the licensee's performance in support of licensing actions that were either completed or had a significant level of activity during the current rating period. These actions, consisting of amendment requests, exemption requests, responses to generic letters, TMI items, and other actions, are classified as follows:

15 Multi-Plant Actions (7 completed): included in this category are:

- Inservice Testing (A-14) - completed
- Inservice Inspection (A-01) - completed
- Mark I Containment Long Term Program (D-01)
- Containment Vent and Purge (B-24)
- Environmental Qualification (B-60)
- Control of Heavy Loads Phase I (C-10)
- Appendix I Tech Specs (A-02)

21 Plant-Specific Actions (17 completed): included in this category are:

- Appendix R Exemptions - completed
- Reload 6 - completed
- Crack Evaluation - Recirculation System - completed
- SDV Long-Term Modifications - completed
- Response to Generic Letter 84-11
- Exemption from SRO Staffing - completed

22 TMI (0737) Actions (13 completed)

The licensee's management, both at headquarters and at the plant has demonstrated an active role in licensing activities and appears to be cognizant of all current and anticipated licensing actions. Decisions, for the most part, appear to be made at a level that ensures adequate management review. The licensee's records appear to be complete and well-maintained. In addition, the licensee seems to exert strong control over its contractors and the lines of communication and interaction between the plant and headquarters appear to be excellent. Strong management involvement has been evidenced particularly when issues have had a significant potential safety impact. During the current rating period, this has been exemplified by the licensee's performance related to the assessment of IGSCC in the recirculation system during the March 1984 outage and by the cooperation extended to the NRC during the data-gathering phase of our response to the

2.206 petition on pipe support adequacy. Increased management attention is required, however, in the screening of amendment requests, responses to NRC generic letters and requests for additional information, and other submittals, to ensure the relevant issues are adequately addressed and the technical content is sufficient.

The licensee has, for the most part, demonstrated an understanding of the safety issues pertinent to each licensing action. However, the licensee's performance regarding the timely resolution of these issues has been variable. During the current rating period, there have been several instances where documentation submitted by the licensee did not address the issues or was inadequate in technical content to permit a meaningful NRC staff review. Examples of this are the licensee's response to a request for additional information regarding containment purge/vent valve operability and an amendment request pertaining to containment isolation valves in process piping. In contrast, the licensee's submittals and meeting presentations relevant to environmental qualification of equipment and the Mark I Containment Long Term Program were commendable. Overall licensee performance at technical meetings has been good. In addition, the licensing staff has demonstrated a working knowledge of the applicable NRC regulations, policies, guides, and standards.

Responsiveness to NRC initiatives is an area where improved licensee performance is particularly needed. Timely response by the licensee to NRC requests has been variable. On occasions, commitment dates have slipped in a gradual but continuous fashion, with the difference between the initially established date and the actual completion date sometimes amounting to several months. Examples of this are the response to a request for additional information regarding burning of contaminated fuel oil, a draft meeting report on environmental qualification of equipment, and submittal of revised Technical Specifications on hydraulic and mechanical snubbers. One area requiring significant improvement is licensee responsiveness to verbal or non-formally documented requests for information made by the project manager, often where a quick response is needed and/or where the effort required would be minimal, such as a status update. A case in point relates to requests for the licensee to provide a status on old amendment requests as part of an ongoing effort to reduce the backlog of licensing actions. Other examples include requests for additional information on proposed amendments regarding containment airlock testing, isolation valves in the RBCLCWS system, and operability testing of ECCS unit coolers. The final area requiring increased licensee attention relates to formal requests for scheduler exemptions submitted by the licensee in an untimely manner (i.e., very late). Cases in point here relate to exemptions for combustible gas control, the response to Generic Letter No. 84-11, and the installation of hardware to provide accident monitoring capability.

It should be noted that a continuous trend of improvement in licensee performance has been evident during the latter part of the current rating period. Regularly scheduled status meetings have been held (and will continue to be held) between the licensee and the NRC project manager to enhance communications. In addition, the licensee has recently instituted a computerized system for tracking licensing actions.

2. Conclusion:

Category 2, same

3. Board Recommendations

None

V. SUPPORTING DATA AND SUMMARIES

A. Investigations and Allegations Review

In June 1983, the licensee was informed by a piping consultant that several safety-related pipe supports were inadequate to meet normal loading conditions as demonstrated by several damaged supports. Based on these allegations a 10 CFR 2.206 petition was filed by the Union of Concerned Scientists (UCS) calling for the immediate shut-down of the facility. The licensee hired another consultant to provide an independent review of the pipe support program.

Resident and region specialist inspections during August, September, and October 1983 and March 1984 reviewed the licensee's actions and examined the as-built and physical condition of pipe supports and restraints. In addition, NRR interviewed the consultant who made the allegations and reviewed actions taken by the licensee, the facility's architect-engineer and the consultant performing the independent review. Based on these inspections and reviews it was determined that: the pipe supports were able to meet normal loading conditions; no supports were damaged as the result of normal operating loads; and that there was no merit to the allegations. The UCS petition was subsequently denied.

B. Escalated Enforcement Actions

1. Civil Penalties

None

2. Orders

- a. Confirmatory Order dated March 14, 1983 on commitments to implement post TMI related items set forth in NUREG-0737 with completion date of July 1, 1981.
- b. Confirmatory Order dated June 24, 1983 on commitment to install permanent Scram Discharge System Modifications.
- c. Confirmatory Order dated June 12, 1983 on commitments for emergency response capability.

3. Confirmatory Action Letters

None

C. Management Conferences Held During the Assessment Period

SALP Management Meeting at Indian Point Unit 3 on May 20, 1983.

D. Licensee Event Report

Tabular Listing

Type of Events:

A. Personnel Error	13
B. Design/Man./Constr./Install.	13
C. External Cause	1
D. Defective Procedure	4
E. Component Failure	28
X. Other.	<u>18</u>
Total	77

Licensee Event Reports Reviewed:

Report Nos. 83-002 to 84-012

LER's 83-001 and 83-027 were deleted by licensee.

Causal Analysis

Twelve sets of common mode events were identified.

- a. LERs 83-06 and 83-31 reported problems with Safety Relief Valves failing to lift within the required tolerance.
- b. LERs 83-09 and 84-02 reported failure of the "B" Emergency Service Water pump breaker to close.
- c. LERs 83-21, 83-45 and 83-57 reported missed surveillance tests.
- d. LERs 83-03, 83-07, 83-13, 83-16, 83-28, 83-34, 83-39, 83-50, 83-51, 83-53, 83-56, 83-58, 83-64, 83-65 and 83-67 involved instrument drift. Within this set, the following subsets were observed.
 - (1) LERs 83-16, 83-56, and 83-65 reported Main Steam Line Radiation Monitor trip setpoints above the Technical Specification limit.

- (2) LERs 83-07, 83-64, and 84-06 reported the High Pressure Coolant Injection System high reactor level trip switch was found out of calibration.
- e. LERs 83-49 and 84-12 reported failures of the High Pressure Coolant Injection System turbine trip throttle valve stems due to an improper cushion chamber pressure adjustment.
 - f. LERs 83-61 and 84-01 reported failures of the "C" Residual Heat Removal Service Water pump.
 - g. LERs 83-19 and 83-42 reported failures of the "B" Low Pressure Coolant Injection System Independent Power Supply inverter.
 - h. LERs 83-32 and 83-47 reported failures of Scram Discharge Instrument Volume drain valves closing within the Technical Specification time limit.
 - i. LERs 84-09 and 84-10 reported reactor trips on low vessel level as a result of a loss of feedwater.
 - j. LERs 83-46 and 83-48 reported inoperable control rods due to failed rod select switches.
 - k. LERs 83-41 and 83-66 reported anomalous mollusk samples.
 - l. LERs 83-41 and 83-59 reported anomalous Periphyton samples.

TABLE 1
TABULAR LISTING OF LERs BY FUNCTIONAL AREA
JAMES. A. FITZPATRICK NUCLEAR POWER PLANT

<u>Area</u>	<u>Number/Cause Code</u>	<u>Total</u>
A. Plant Operations	8/A, 7/B, 1/C, 2/D, 10/E, 5/X	33
B. Radiological Controls	4/X	4
C. Maintenance & Modifications	1/A, 1/B, 1/D, 7/E	10
D. Surveillance	3/A, 3/B, 1/D, 11/E, 9/X	27
E. Fire Protection/ Housekeeping	1/A	1
F. Emergency Preparedness	None	0
G. Security and Safeguards	None	0
H. Refueling & Outage Management	1/B	1
I. Licensing Activities	1/B	1
TOTAL		77

Cause Codes: A. Personnel Error
 B. Design, Manufacturing, Construction, or Installation Error
 C. External Cause
 D. Defective Procedure
 E. Component Failure
 X. Other

TABLE 2

INSPECTION HOURS SUMMARY (1/1/83 - 6/30/84)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

	<u>Hours</u>	<u>% of Time</u>
A. Plant Operations.	1055*	36*
B. Radiological Controls.	476	16
C. Maintenance	477	16
D. Surveillance.	258	9
E. Fire Protection/Housekeeping	95	3
F. Emergency Preparedness.	208	7
G. Security and Safeguards.	220	8
H. Refueling & Outage Management.	143	5
I. Licensing Activities.	-*	-*
Total	2932	100

*Hours expended in facility license activities and operator license activities not included with direct inspection effort statistics.

TABLE 3

VIOLATION SUMMARY (1/1/83 - 6/30/84)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

A. Number and Severity Level of Violations

Severity Level I	0
Severity Level II	0
Severity Level III	0
Severity Level IV	11
Severity Level V	9
Deviation	<u>2</u>
	22

B. Violation Vs. Functional Area

FUNCTIONAL AREAS	<u>Severity Levels</u>					DEV
	I	II	III	IV	V	
A. Plant Operations				4	4	
B. Radiological Controls				4	4	
C. Maintenance				3	1	
D. Surveillance						2
E. Fire Protection & Outage Management						
F. Emergency Preparedness						
G. Security Safeguards						
H. Refueling & Outage Management						
I. Licensing Activities						
Totals				11	9	2

TABLE 3

VIOLATION SUMMARY (1/1/83 - 6/30/84)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

A. Number and Severity Level of Violations

Severity Level I	0
Severity Level II	0
Severity Level III	0
Severity Level IV	10
Severity Level V	9
Deviation	<u>2</u>
	21

B. Violation Vs. Functional Area

<u>FUNCTIONAL AREAS</u>	<u>Severity Levels</u>					<u>DEV</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	
<u>A. Plant Operations</u>				4	4	
<u>B. Radiological Controls</u>				3	4	
<u>C. Maintenance</u>				3	1	
<u>D. Surveillance</u>						2
<u>E. Fire Protection & Outage Management</u>						
<u>F. Emergency Preparedness</u>						
<u>G. Security Safeguards</u>						
<u>H. Refueling & Outage Management</u>						
<u>I. Licensing Activities</u>						
<u>Totals</u>				10	9	2

(TABLE 3 Continued)

C. Summary

<u>Inspection Report No.</u>	<u>Inspection Date</u>	<u>Severity Level</u>	<u>Functional Area</u>	<u>Violation</u>
83-01	1/1-31/1983	V	A	Failure to establish a procedure for entering drywell directly from nitrogen truck
		V	C	Failure to implement overtime policy
83-04	2/1-28/1983	V	A	Failure to audit Technical Specification Limiting Conditions for Operation
83-06	3/1-31/1983	IV	A	Failure to maintain a special procedure
		V	A	Failure to review procedures at the required interval
		V	B	Failure to frisk prior to leaving a restricted area
83-08	3/21-25/1983	IV	B	Failure to implement procedures controlling radiation work permits
		V	B	Failure to establish adequate procedures for respiratory protection equipment

(TABLE 3 Continued)

		V	B	Failure to properly label radioactive material containers
83-09	4/1-30/1983	IV	C	Failure to control measuring and test equipment
83-10	4/12-15/1983	DEV	D	Failure to include all safety related valves in IST program
		DEV	D	Failure to establish maximum allowed stroke times for power operated valves and failure to establish appropriate pump testing acceptance criteria
83-11	3/24/1983	IV	B	One of ten steel boxes of radioactive waste shipment was not a strong, tight package
83-12	5/1-31/1983	IV	C	Failure to control a special process
83-14	6/6-10/1983	IV	B	Failure to perform airborne radioactivity surveys
83-27	10/8 - 11/6/1983	IV	A	Failure to submit a Licensee Event Report
83-28	11/7 - 12/4/1983	IV	A	Failure to perform a written safety evaluation

(TABLE 3 Continued)

84-04	3/1-31/1984	IV	A	Exceeded Technical Specification heat-up rate limit
		IV	C	Failure to perform adequate post maintenance testing
84-09	5/21-25/1984	IV	B	Failure to establish a written procedure for radioactive waste classification and manifest preparation
84-15	6/29 - 7/31/1984	V	A	Failure to make the required notifications on violation of primary containment
		V	B	Failure to follow radiation protection procedures

(TABLE 3 Continued)

84-04	3/1-31/1984	IV	A	Exceeded Technical Specification heat-up rate limit
		IV	C	Failure to perform adequate post maintenance testing
84-15	6/29 - 7/31/1984	V	A	Failure to make the required notifications on violation of primary containment
		V	B	Failure to follow radiation protection procedures

TABLE 4
INSPECTION REPORT ACTIVITIES (1/1/83 - 6/30/84)
JAMES A. FITZPATRICK NUCLEAR POWER PLANT

<u>Inspection Report No.</u>	<u>Inspection Hours</u>	<u>Areas Inspected</u>
83-01	150	Routine, resident
83-02	58	Security
83-03	68	Design changes and modifications
83-04	138	Routine, resident
83-05	13	Emergency preparedness
83-06	225	Routine, resident
83-07	51	Plant shielding design review
83-08	37	Radiological controls
83-09	173	Routine, resident
83-10	32	Inservice Testing surveillance program
83-11	8	Transportation activities
83-12	101	Routine, resident
83-13	66	Security
83-14	120	Radiological controls
83-15	132	Routine, resident
83-16	31	Inservice inspection activities

(Table 4 Continued)

<u>Inspection Report No.</u>	<u>Inspection Hours</u>	<u>Areas Inspected</u>
83-17	49	Routine, resident
83-18	126	Routine, resident
83-19	32	Inservice inspection activi- ties
83-20	60	Environmental monitoring
83-21	112	Routine, resident
83-22	11	Emergency Prepared- ness
83-23	123	Emergency Prepared- ness
83-24	28	Special, as-built and physical condition of safety related pipe supports and restraints
83-25	74	Radiological controls
83-26	25	Security
83-27	56	Routine, resident
83-28	81	Routine, resident Surveillance program review
83-29	47	Routine, resident
84-01	98	Routine, resident
84-02	82	Routine, resident
84-03	8	Inservice inspection activi- ties

(Table 4 Continued)

<u>Inspection Report No.</u>	<u>Inspection Hours</u>	<u>Areas Inspected</u>
84-04	109	Routine, resident
84-05	64	Routine, resident
84-06	37	Radiological controls
84-07	-	Licensed operator examination report
84-08	65	Routine, resident
84-09	30	Transportation activities
84-10	58	Emergency preparedness
84-11	64	Licensee response to Generic Letter 83-28 (Salem ATWS Events)
84-12	78	Routine, resident
84-15	12*	Routine, resident

*Includes only those hours used to followup on an event which happened during the current assessment period.

TABLE 5

LER SYNOPSIS (1/1/83 - 6/30/84)JAMES A. FITZPATRICK NUCLEAR POWER PLANT

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
83-001	--	Voided
83-002	30 day	Standby Gas Treatment System Humidity Control Heater inoperable due to tripped breaker
83-003	30 day	Core Spray Sparger to Reactor Vessel Differential Pressure Switches out of calibration
83-004	30 day	Control Rod 18-27 uncoupled and failed to recouple
83-005	30 day	Inadvertent Radioactive Release from A Laundry Drain Tank
83-006	30 day	Safety relief valve failed to lift within allowable tolerance
83-007	30 day	HPCI high reactor level trip switch out of calibration
83-008	Prompt	Error in Reload 4 analysis delta critical power ratios
83-009	30 day	B Emergency Service Water pump breaker failed due to improper adjustment
83-010	30 day	B Residual Heat Removal Pump removed from service to repair discharge check valve
83-011	prompt	High tailpipe temperatures on D and F safety relief valves
83-012	14 day	Anomalous tritium measurement of Nine Mile Point, Unit 1 inlet canal sample
83-013	30 day	Main Steam Line Low Pressure switch out of calibration
83-014	30 day	B Station Battery inoperable due to cracked leaking cell jars

(Table 5 Continued)

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
83-015	30 day	Recirculation Motor Generator Set low level/high pressure trip test switch found out of its normal position
83-016	30 day	D Main Steam Line Radiation Monitor trip setpoint greater than Technical Specification limit
83-017	30 day	Loss of one offsite power supply
83-018	30 day	A Standby Gas Treatment System made inoperable to replace charcoal
83-019	30 day	B Low Pressure Coolant System Independent Power Supply Inverter inoperable due to failed Gate firing module printed circuit board
83-020	30 day	HPCI Outboard Containment Isolation Bypass Valve inoperable
83-021	30 day	Missed surveillance test on Scram Discharge Volume High Level Instrument
83-022	30 day	A Containment Spray System penetration failed Local Leak Rate Test
83-023	prompt	Through wall crack in the control rod drive return line
83-024	30 day	Fire barrier penetration opened without establishing a continuous fire watch
83-025	30 day	Containment Isolation Valve excessive closure time not noted during surveillance test
83-026	30 day	Main Steam line support damaged
83-027	--	Voided
83-028	30 day	Reactor Low Pressure Switch setpoint found less than Technical Specification requirements
83-029	30 day	Snubber failed functional testing

(Table 5 Continued)

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
83-030	30 day	Diesel Generator exhaust system supports inadequate for tornado wind loads
83-031	30 day	Safety relief valves failed to lift within allowed tolerance
83-032	30 day	SDIV outboard drain valves failed to close within Technical Specification time limit
83-033	30 day	Torus water level less than minimum Tech. Spec. Limit
83-034	30 day	Average Power Range Monitor C downscale trip set less than Technical Specification requirement
83-035	30 day	D Main Steam Line High Flow Switch inoperable
83-036	30 day	ECCS actuation while performing surveillance test on High Drywell Pressure Switches
83-037	30 day	Drywell pressure switches setpoints found less conservative than Tech. Spec. requirement
83-038	30 day	B LPCI injection valve failure due to loosening of motor pinion gear
83-039	30 day	MSL low pressure switches had setpoints less than Tech. Spec. requirement
83-040	30 day	Failure to continuously monitor containment oxygen and hydrogen during operation of PASS
83-041	14 day	Mollusks and Periphyton samples exceeded ten times control sample for Mn-54 and Co-60
83-042	30 day	Failure of B LPCI inverter due to faulty inverter leg assembly

(Table 5 Continued)

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
83-043	30 day	Condensate Storage Tank Low level switch failed to trip
83-044	30 day	Both Dryweil CAM's (particulate) inoperable
83-045	30 day	Missed surveillance test on APRM's
83-046	30 day	Inoperable control rod due to failed select switch
83-047	30 day	One SDIV drain valve failed to close within required time
83-048	30 day	Inoperable control due to failed select switch
83-049	30 day	HPCI stop valve stem fractured
83-050	30 day	RWCU equipment area temperature switch out of calibration
83-051	30 day	CST level switch out of calibration
83-052	30 day	HPCI Turbine Stop Valve tripped and could not be reset
83-053	30 day	RHR Snubber inoperable due to base plate being pulled from wall
83-054	30 day	HPCI inoperable due to crack on steam header vent pipe
83-055	30 day	HPCI High Steam Flow Isolation Switch out of calibration
83-056	30 day	C Main Steam Line Rad Monitor setpoint greater than Tech. Spec. requirement
83-057	30 day	Reactor Coolant leakage rates not measured
83-058	30 day	HPCI steam line high flow instrument setpoint greater than Tech. Spec. requirement

(Table 5 Continued)

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
83-059	14 day	Periphyton sample exceeded ten times control sample for cobalt-60
83-060	30 day	Incorrect motor actuator installed on RHR suppression pool cooling outboard isolation valve 10-MOV-39B
83-061	30 day	CRHR Service Water Pump inoperable due to high vibration
83-062	30 day	Scram Discharge Volume Level Transmitter out of calibration
84-001	30 day	Containment Cooling Inoperative
84-002	30 day	Containment Cooling Inoperative
84-003	30 day	Inoperative RCIC System due to personnel error
84-004	30 day	Inoperable Reactor Core Isolation Cooling
84-005	30 day	Loss of containment hydrogen and oxygen monitoring
84-006	30 day	Defective Reactor Water Level Switch
84-007	30 day	D MSL MSIV's failed LLRT
84-008	30 day	Heatup rate exceeded Technical Specification limit
84-009	30 day	Reactor trip due to low water level
84-010	30 day	Reactor trip due to low water level
84-011	30 day	Failure of redundant turbine building radiation monitors
84-012	30 day	Simultaneous HPCI and RCIC System inoperability



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION I
 831 PARK AVENUE
 KING OF PRUSSIA, PENNSYLVANIA 19406

SEP 04 1984

Docket No. 50-333

Power Authority of the State of New York
 James A. FitzPatrick Nuclear Power Station
 ATTN: Mr. J. P. Bayne
 Executive Vice President
 Nuclear Generation
 123 Main Street
 White Plains, New York 10601

Gentlemen:

Subject: Systematic Assessment of Licensee Performance (SALP); Report No. 50-333/
 84-17

The NRC Region I SALP Board has reviewed and evaluated the performance of activities at the James A. FitzPatrick Nuclear Power Station for the period of January 1, 1983 through June 30, 1984. The results of this assessment are documented in the enclosed SALP Board report dated August 13, 1984. A meeting to discuss the assessment has been scheduled for September 13, 1984 at the site in Scriba, New York.

The FitzPatrick SALP Board concluded that an acceptable level of management attention and involvement is evident in all functional areas. It was noted that you have demonstrated a high level of performance in the areas of Security and Safeguards, Fire Protection and Housekeeping, and Refueling and Outage Management. Additionally, continued improvements were evident in the Plant Operations and the Radiological Controls areas. This is in contrast to a decline in the Emergency Preparedness area noted from your high level of performance exhibited during the previous assessment period.

At the SALP meeting, you should be prepared to discuss our assessments and your plans to improve performance. The meeting is intended to be a dialogue wherein any comments you may have regarding our report may be discussed. Additionally, you may provide written comments within 20 days after the meeting.

Your cooperation is appreciated.

Sincerely,

Richard W. Starostecki, SALP Board
 Chairman
 Director, Division of Project and
 Resident Programs

Enclosure: SALP Report No. 50-333/84-17

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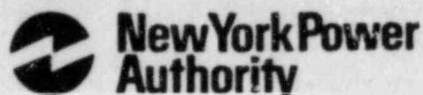
cc w/encl:

L. W. Sinclair, President and Chief Operating Officer
C. A. Mc Neill Jr., Resident Manager
A. Klausmann, Vice President - Quality Assurance
R. L. Patch, Quality Assurance Superintendent
George M. Wilverding, Chairman, Safety Review Committee
C. M. Pratt, Assistant General Counsel
NRC Licensing Project Manager
Dept. of Public Service, State of New York
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New York

bcc w/encl:

Region I Docket Room (with concurrences)
Senior Operations Officer (w/o encl)
DPRP Section Chief
T. Martin, DETP, RI
RI PAO (2 copies)
T. Murley, RI
SALP Management Meeting Attendees
DRRP File 6.5

123 Main Street
White Plains, New York 10601
914 681-6200



J. Phillip Bayne
Executive Vice President
Nuclear Generation

October 10, 1984
JPN-84-66

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attention: Mr. Richard W. Starostecki
SALP Board Chairman
Director, Division of
Project and Resident Programs

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Response to Systematic Assessment
of Licensee Performance (SALP)
Report No. 50-333/84-17

References: 1. NRC September 4, 1984 letter, R.W. Starostecki to
J.P. Bayne, regarding SALP Report No. 50-333/84-17.
2. NRC November 14, 1983 letter, T.T. Martin to C.A.
McNeill, Jr., regarding Inspection No. 50-333/83-23.

Dear Sir:

This response addresses the assessment results of the SALP Board's evaluation of activities at the James A. FitzPatrick Nuclear Power Plant (JAFNPP) and is intended to clarify and provide additional information with respect to the discussion at the assessment meeting of September 13, 1984.

The SALP assessment (Reference 1) in the Emergency Preparedness area presented a category 2 with an associated declining trend. This assessment is a downgrading from the previous SALP assessment of a performance category 1. It is the position of the New York Power Authority that the Emergency Preparedness Program at the JAFNPP has not been reduced in effectiveness.

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The assessment states in part:

"There was evidence of a decline in prior planning and assignment of priorities in that the exercise scenario was not finalized until the day of the exercise. This may be attributed to the past practice of relying on one full-time on-site individual to coordinate all site Emergency Preparedness activities. An additional staff member has recently been assigned full-time to assist in this area. Licensee initiatives to increase onsite staff support are commendable. The licensee, however, clearly understands technical issues from a safety standpoint, as indicated by his conduct of the exercise.

On May 21-25, 1984, an unannounced routine emergency preparedness inspection (50-333/84-10) was performed. Reviews indicated that training records and audits generally were complete, available and sufficiently maintained. However, a review of IR 83-23 identified items noted that only one of four NRC initiatives had been fully resolved.

During the early part of the assessment period, adequate licensee performance in emergency preparedness was evident. During the latter part of the assessment period, licensee response to NRC initiatives declined."

This assessment of declining performance appears to be based primarily upon administrative functions associated with preparation for exercises and the timely correction of minor deficiencies resulting from the exercise. The real test of emergency preparedness is in fact the exercise results. By all indications, these results have been and remain excellent. This has been the case despite the fact that during the recent 1984 exercise many of the positions (including the Emergency Director position) were deliberately filled by alternates.

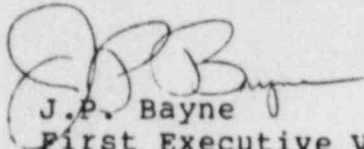
Additionally, the assessment does not appear to have taken into consideration the following information:

1. As noted in Inspection Report 84-17 (Reference 1), the emergency preparedness staff at JAFNPP was increased by an additional staff member during the assessment period. It should be further noted that the corporate NYPA emergency preparedness staff was increased by two people who assist JAFNPP planners.
2. Inspection Report 83-23 (Reference 2) identified four open items that had remained open 6 months from the presentation of the 1983 JAFNPP exercise findings. Of the 4 items identified in Inspection Report 83-23, one item was completed, two items were presented to the inspection team during the inspection in final draft form, and one item was not scheduled for completion until December, 1984. The item scheduled for December, 1984 involved total population dose estimates which include a complex model and extensive calculations.

3. The assessment, while identifying its findings, did not mention several positive efforts and improvements for the betterment of the JAFNPP Emergency Plan. These improvements include: the development and construction of a new Emergency Offsite Facility (EOF) and associated systems; the development and implementation of a dedicated dose assessment computer and associated software; a major map revision program for the plant, county and state; follow through for formal acceptance of the New York State and Oswego County plans (first in the state); and Authority efforts to be first in the Region to have a FEMA qualified prompt notification system.

It is our belief that this additional information will clarify the items discussed. The Authority requests that further consideration should be given to the performance category and trend assigned to the JAFNPP Emergency Preparedness Program.

Very truly yours,



J.P. Bayne
First Executive Vice President
Chief Operations Officer

cc: Office of the Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 136
Lycoming, NY 13093