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April 1, 1983  
JPN-83-28

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United States Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
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Subject: James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333  
Response to Inspection No. 50-333/82-24  
Operational Assessment Team Inspection

Reference: NRC letter, T. T. Martin to J. P. Bayne dated January  
28, 1983, regarding the subject inspection.

Dear Sir:

The Power Authority has received the subject inspection report, which was transmitted by the referenced letter. The Authority notes that within the scope of this comprehensive inspection, no violations were identified. We also noted that your staff identified those specific features, characterized as strengths in Appendix A to the referenced letter, which particularly contribute to the safety or effectiveness of our activities. These strengths are features or actions implemented by the Authority specifically to improve our quality related activities.

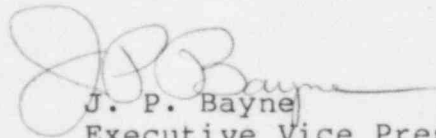
Appendix B to the referenced letter identifies areas, characterized as weaknesses, which the NRC believes should be addressed to increase the effectiveness of our activities. Many of these items were identified, and corrective action initiated by the Authority prior to the inspection. Attachment 1 to this letter contains the Authority's specific responses to the weaknesses identified in the inspection report. We will aggressively pursue resolution of these items as part of our continuing efforts to improve quality related activities.

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The referenced letter requested a response within 30 days of receipt of the letter. This established March 4, 1983 as the requested response date. An extension of this date was requested by the Authority due to the magnitude of the required response, the importance of the issues involved, and the current workload of our staff. Your staff verbally agreed to a revised date of March 25, 1983.

If you have any questions or require additional information please do not hesitate to contact Mr. J. A. Gray, Jr. of my staff.

Very truly yours,



J. P. Bayne  
Executive Vice President  
Nuclear Generation

cc: Mr. J. Linville  
Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 136  
Lycoming, New York 13093

POWER AUTHORITY OF THE STATE OF NEW YORK  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
RESPONSE TO  
INSPECTION 50-333/82-24  
OPERATIONAL ASSESSMENT TEAM INSPECTION

ATTACHMENT 1  
TO  
JPN-83-28, DATED MARCH 31, 1983

The Power Authority has reviewed the NRC report on Inspection No. 50-333/82-24. This report identified weaknesses in the Authority's programs, activities or organization. The report stated that these weaknesses do not constitute noncompliance with regulatory requirements, but impact the effectiveness of the activity exhibiting the weakness. The Authority's responses to the NRC findings are provided below.

Item numbers refer to Appendix B to the NRC's letter, from T.T. Martin to J.P. Bayne dated January 28, 1983. Paragraph numbers refer to the inspection report transmitted by this NRC letter.

A. Design

1.a. NRC finding:

Design verification procedures of the Design and Analysis Division are not consistent with an NRC staff position (paragraph 4.6.2.2).

1.a. Authority response:

The present description of design verification by supervisors in Design and Analysis Procedures 3.11 and 3.18 will be revised to be compatible with the NRC staff position outlined in the NRC Inspection Report. This will be completed by April of 1983.

1.b. NRC finding:

There are indications that the engineering staff lacks familiarity with procedural requirements for verification and design verification methodology (paragraphs 4.6.3 and 4.5.3 ).

1.b. Authority response:

Section 4.6.3 of the inspection report cites two examples to substantiate the existence of the identified weakness. The first example concerns plant modification Fl-77-38 (Waste Surge Tank Shield Wall). The inspectors identified the method of denoting revised calculations as being a poor practice which compromises the audit trail and can lead to confusion.

The Authority agrees with this finding. The particular calculations reviewed were not re-issued in strict accordance with JAF Engineering Design Procedure (EDP) No. 2 (Section 5.3.1). A completely new set of Revision 1 calculations, which uniquely identify the changes as required by EDP-2, is being prepared. This action will be completed by April 1, 1983. Additionally this finding and the corrective action will be reviewed with the Technical Services Department engineering staff.

The second example was the improper documentation of the verification of the Revision 1 calculations for the Waste Surge Tank Shield Wall. The report states that the method of design verification was not documented as required by ANSI 45.2.11 and that neither the site responsible engineer nor his supervisor had detected the lack of adequate verification documentation.

Reviewing the transmittal of Revision 0 of the calculations (JAFP-82-0581), it is readily apparent that the site responsible engineer and his supervisors recognized the requirements for a proper design verification of the calculations. When Revision 1 to the calculations were forwarded to headquarters on August 31, 1982 it was assumed that the headquarters engineering organization would perform and document the proper verification. When memorandum JAF-82-183 dated October 4, 1982 was received from Project Engineering, the responsible engineer and his supervisor discussed the inadequacy of the verification documentation stated in the memorandum. Prior to the NRC assessment team inspection, this problem was identified to the responsible headquarters Nuclear Generation personnel. At the time of the inspection, documentation of the verification was still in the process of being resolved.

Since the inspection, the Technical Services Department has conducted individual discussions with all of the personnel involved in these design verifications. Additional formal training was conducted for all plant engineers during the week of March 7, 1983.

Design verification for the Waste Tank Shield Wall was repeated and the required documentation prepared in accordance with site procedure EDP-3 "Design Verification". The lack of documentation is attributed to the fact that Project Engineering Section procedures to cover this activity have not been issued. These procedures have not been provided because engineering for safety related modifications has not been done in-house until very recently. Fl-77-38 is the first modification for which design verification was performed by the Project Engineering Section. However, the need for project engineering procedures to cover design control and other administrative functions was identified following the reorganization. These procedures are currently under preparation as noted in Section 4.6.2-1 of the Inspection Report. In the interim, the Project Engineering Section will continue to use the FitzPatrick procedures as applicable. Training on the requirement of 10 CFR 50 Appendix B and ANSI 45.2.11 as applicable to design control will be provided to the Project Engineering Section by September 1, 1983.

Engineering for Modification Fl-81-26 was in the early stages of detailed engineering during the audit period and design verification was not completed at the time. However, Design and Analysis Department procedures include design verification requirements. This requirement will be satisfied at the appropriate time during the engineering and design efforts.

Finally, an independent committee was formed by the Executive Vice President - Nuclear Generation on August 26, 1982 to evaluate the modification controls applicable to both nuclear facilities. This committee is composed of seven members, one member each from: Nuclear Support Division-BWR and PWR, the FitzPatrick plant, the Indian Point 3 plant, the Quality Assurance Department, the Design and Analysis Division and the Projects Division. This committee is charged with reviewing all the controls applicable to the nuclear plant modifications including procedures, and make recommendations for needed improvement.

1.c. NRC finding:

The method of design verification used by a verifier is not always documented (paragraph 4.5.3).

1.c. Authority response:

The Power Authority agrees with this finding relative to two instances for plant modification Fl-80-20 (Hydrogen Analyzer).

The subject verifications have been corrected to indicate the actual methods utilized. In addition, the individuals involved have been instructed on the proper implementation of the JAF Engineering Design Procedure (EDP) No. 3.

1.d. NRC finding:

Design input information obtained via oral means such as telecon or group meetings, is not formally documented (paragraphs 4.5.2 and 4.6.2.2).

1.d. Authority response:

The Technical Services Department Standing Order TSSO-1 (Documentation of Engineering Discussions and Meetings) has been developed and implemented for use in documenting telephone discussions or meetings where design input information may be obtained.

The need to document and maintain information transmitted by telephone conversations and meetings will be included in appropriate Design and Analysis Department Procedures. Forms to record telephone conversation notes will be designed and implemented. This will be completed by April of 1983.



As stated in the response to NRC Finding 1.b, procedures are being prepared to cover the activities of the Project Engineering Section-BWR. These procedures will include various design and administrative controls including a requirement that the sections's engineers adequately document transmittals of pertinent design information. Until procedures are issued, all PES-BWR engineers have been instructed to document telephone calls in which an interchange of pertinent design information has taken place. Appropriate forms for this purpose have been provided.

1.e. NRC finding:

Preoperational tests were not designed to verify the installed system's ability to meet the design input requirements (paragraph 4.5.3).

1.e. Authority response:

The example cited is an isolated instance and not a generic weakness in modification preoperational tests recently prepared. The JAF modification package did not have the overall system time response calculations because the design of the system was performed by the General Electric Company. This information is being obtained from GE to respond to the NRC post-implementation review of NUREG-0737, Item II.F.1.4.

B. Procedures

NRC finding:

There are major omissions and discrepancies in many of the corporate organization's policies and procedures. Many of the discrepancies are due to the major reorganization, subsequent redefinition of charters and responsibilities, and failure to revise applicable procedures. The Nuclear Generation Department procedures and Nuclear Administrative Policies Manual are identified as documents requiring immediate attention (paragraph 3.2 and 6.8).

Authority response:

The Authority agrees with this finding. We were aware of the need to revise the NuAPs and Nuclear Generation Department Procedures (NGPs) prior to the inspection, due to our recent reorganization. This effort has already begun. All NuAPs and NGPs will be reviewed and marked-up by July 1, 1983. All comments will be resolved and final revisions issued by September 5, 1983. New NuAPs and NGPs which may be initiated during the review process will also be completed and issued by September 5, 1983.

## G. Maintenance

### 1.a NRC finding:

Administrative controls are not in place for management of the Department (paragraphs 6.4, 6.5.1, and 6.6).

### 1.a Authority response:

This concern was previously identified by the plant staff. To achieve resolution the following actions have been completed: (1) the new organization was finalized by November 15, 1982; (2) management job descriptions to reflect the new organization were written or rewritten by January 1983; and (3) organizational responsibilities were clarified in November 1982. In addition, departmental policies and procedures will be written and a departmental organizational and administrative manual will be issued by December 31, 1983. To date, a formal administrative procedure on managing the General Maintenance Contractor has been issued and another departmental procedure on vacations, tardiness, days off, etc. is under review.

### 1.b NRC finding:

There are a significant number of vacant supervisory positions in the Department (paragraph 6.4).

### 1.b Authority response:

At the time of the audit, there existed eight newly created open positions. Since that time, five positions have been filled, two offers are outstanding and interviews are in progress for the last position. The Maintenance Department's goal is to complete hiring by the end of April of 1983.

### 1.c NRC finding:

The General Maintenance Contractor is not sufficiently familiar with station practices and procedures to effectively perform contractual functions (paragraph 6.5.6).

### 1.c. Authority response:

As stated in Section 6.5.6 of the audit, maintenance contractor personnel have received some training on an informal basis. Additional training (as needed) has been and will be conducted. A formal Indoctrination and Training Procedure (ITP) will be written for training of maintenance contractor personnel. This ITP will be issued and implemented by June 1, 1983.



1.d. NRC finding:

There is insufficient supervision of the contractor by licensee (paragraph 6.5.6).

1.d Authority response:

At the time of the NRC audit, the Maintenance Department had only one individual (a Contract Services Engineer) to oversee the maintenance contractor. Since then, the services of two outside contract service engineers have been obtained to assist in the supervision and auditing area. These individuals will be retained until the end of the 1983 outage. One new Assistant Contract Services Engineer has been hired and an offer is outstanding for a second engineer. It is expected that the second position will be filled by April 30, 1983.

2. NRC finding:

A significant weakness in the JAF maintenance program is the lack of a structured preventive maintenance program (paragraph 6.4, and 6.5.3).

2. Authority response:

This issue was previously identified by the Authority and was also noted in an INPO finding. The dedicated Preventive Maintenance (PM) Supervisor has been hired and began work February 7, 1983.

The present goals of the department are as follows:

- a. Obtain or create a computerized program for PM scheduling by June of 1983.
- b. Develop a formal procedure to administer the PM program by June of 1983.
- c. Identify, generate procedures for, and incorporate into the PM program, a major segment of plant components by June of 1984.
- d. Assure that by December of 1985, 40% of the maintenance activities will be preventive in nature.

D. Quality Assurance

1.a. NRC finding:

The audit program is compliance oriented. It lacks balance between compliance audits and effectiveness/safety audits (paragraphs 7.7.1, 7.7.2, 8.4 and 9.6.2).

1.a. Authority response:

The recently reorganized Quality Assurance and Reliability Department (QA&R) has been assigned responsibility for assessing important aspects of station programs. The programs which will be addressed include security, training, radiological, environmental, operations, maintenance, safety, and fire protection. This effort will supplement the audit program presently conducted by site QA. QA&R will implement this program by April 15, 1983.

Headquarters Nuclear Generation Department personnel will also perform, or assist QA&R in the performance of, effectiveness assessments and the review of important station assessments for the Executive Vice President-Nuclear Generation. The personnel utilized for this purpose will be independent of functional responsibilities in the areas reviewed. These activity will enhance management and administrative controls which are used to assure the quality of Authority activities.

1.b. NRC finding:

The audits do not utilize the technical expertise of other organizations (paragraphs 7.6.1 and 7.7.2).

1.b. Authority response:

The Authority recognized that the audit program could be enhanced by the utilization of technical expertise in addition to that existing within QA. As a result, Nuclear Administrative Policy (NuAP) 4.6, "Audit Participation - Engineering/Operations", was promulgated in May of 1982 to require additional technical assistance, as may be necessary, in the implementation of the audit program.

Subsequent to the issuance of this policy, engineering personnel from both the Nuclear Generation Department and the Design and Analysis Division of the Engineering Department were utilized during the audit of Teledyne in December, 1982. Engineering personnel from the Fuels Division frequently participated in audits of nuclear fuel reloads for the FitzPatrick plant. The QA&R Department will continue to employ additional expertise for audits, where appropriate.

The plant QA organization has also utilized the expertise of other organizations on occasion. In April of 1983, an audit of the Authority's fire protection activities at the plant and headquarters will be coordinated by site QA, and employ the expertise of other organizations.

The utilization of other technical personnel will be expanded as the need exists and personnel staffing levels allow. This expanded utilization is expected to be fully implemented by July 1, 1983.

1.c. NRC finding:

Comprehensiveness of the audit program could not be demonstrated (paragraph 7.7.11).

1.c. Authority response:

Headquarters Quality Assurance has developed a chart for tracking audit planning and performance. The chart will contain a summary listing for each audit performed and an indication of the applicable Appendix B criteria addressed as part of the audit scope. This chart was made available to the NRC audit team during their inspection and they indicated it would meet the requirements for objective evidence that the audit program is comprehensive.

1.d. NRC finding:

The program does not provide for audit of the JAF site (except by the Joint Utility Management Audit) (paragraph 7.5.2).

1.d. Authority response:

The plant QA staff reports directly to headquarters Quality Assurance and not plant management. Therefore, an audit of the plant QA staff by the corporate QA staff is an internal audit, i.e. one section of an organization is auditing another section of the same organization.

The Authority considers an audit by an outside group, such as the Joint Utility Management Audit, to be more desirable than an internal audit. The Authority also considers this sufficient to satisfy our program needs.

1.e. NRC finding:

Responses and corrective actions to audit findings have not been always timely (paragraph 7.7.1).

1.e. Authority response:

Quality Assurance Procedure 16.3 "Corrective Action Control-Headquarters" provides the administrative mechanism for the notification of successively higher levels of management if responses are late. The procedure also requires the establishment of logs, files or other effective measures to control items of noncompliance. It also requires that these files be monitored to provide for prompt corrective and preventive action, as applicable. QA supervision has been reminded to strictly adhere to established procedures.

2. NRC finding:

The QA Procedures Manual is incomplete and does not address how quality affecting activities interface with QA. Section 3 of the manual is "empty" and therefore there is no definition of QA's involvement in design control (paragraph 7.5.2)

2. Authority response:

As was stated in the inspection report, the QA Program Manual adequately addresses Appendix B to 10 CFR 50. This manual specifies how the Authority achieves compliance with Appendix B. The QA Procedures Manual provides direction to QA personnel in the performance of their assigned functions.

Since the QA Program was developed and implemented, the following sections of the Procedures Manual have been blank: Design Control (Section 3); Identification of Materials, Parts and Components (Section 8); Control of Measuring and Test Equipment (Section 12); Handling, Storage and Shipping (Section 13); and, Inspection Test and Operating Status (Section 14). This is because these activities are functionally carried out by other parts of the Authority organization, as provided for in the QA Program. QA's functional activities in these areas are only audit and surveillance, which are procedurally defined elsewhere in the Procedures Manual.

The recent increase in design and engineering activities conducted by the Authority is resulting in a commensurate increase in QA review activities in this area. Therefore, QA procedures will be developed and implemented for Design Control (Section 3). This will be completed by July 1, 1983.

The remaining blank sections of the Procedures Manual will be revised to clarify how these activities are performed within the Authority. This will be done in two ways. First, a matrix relating QA functional activities to the criteria of Appendix B will be developed and placed in the Procedures Manual. (This new matrix will be in addition to that contained in FSAR Appendix 17.2-7 of the QA Program which relates QA procedures to Appendix B criteria.) The new matrix will identify each functional activity performed by QA for each Appendix B criterion.

Secondly, each blank section of the procedures manual will be revised. A description of QA's audit, surveillance and overview functions will be provided in each section. This will clarify how the QA personnel relate to the individuals who are actually performing the quality related activity. This description will also identify the organizational unit in the Authority which is actually performing the quality related activity, and show that this is in accordance with the QA Program.

3. NRC finding:

The corporate QA organization has been assigned/requested to perform audits beyond those applicable to JAF. This imposes a heavy workload on a lean staff. Audit planning does not reflect these additional assignments (paragraphs 7.5.2 and 7.6.1).

3. Authority response:

The Authority considers that the increase in staff, approved in 1983, will enhance the ability of the corporate staff to carry out the assigned audits. Audit plans are under development for controlling the audit program at headquarters. An internal audit schedule will be completed by April 15, 1983, which will cover internal audits over a two-year cycle. To date, audits have been conducted of Design and Analysis, Security, Nuclear Fuels, and Training. It should be noted that the internal audit program at headquarters is accomplished by QA personnel assigned to both FitzPatrick and Indian Point, since many of the areas audited are generic to both plants.

E. Records Management

1. NRC finding:

The records management program is weak and fragmented. The program interfaces are not well defined and communication between Corporate and site is lacking (paragraphs 8.3 and 8.5).

1. Authority response:

The Authority has been aware of the need for and has been carrying out, correction action on the records program. Over the last two years, the Authority has carefully analyzed the strengths and weaknesses of the Records Management Program. The analysis not only included specific practices at the plants and headquarters, but also our philosophy towards Records Management.

Based on this analysis, the Authority decided that all Records Management practices would be coordinated by headquarters and that procedures would be put in place to guarantee compatibility between Records Management systems at the plants.

The administrative procedures governing the collection, storage and maintenance of records at the plant and headquarters are being revised. The revisions will define responsibilities and interfaces. This will be completed by September 30, 1983.



2. NRC finding:

The site program has not formally defined record retention requirements. Therefore the ARMS contains many unrelated records, while many records required by regulations are not being entered. Interim commitments to NRC are not being met (paragraph 8.4).

2. Authority response:

A records retention index is being developed that will formally define plant record requirements. The index will be consistent with the Code of Federal Regulations, ANSI Standards, the Plant Technical Specifications and the QA Manual. This index will be completed by September 30, 1983. The plant records retention index will then be incorporated into the overall Authority record retention index, maintained by the headquarters Records Management Group.

The headquarters administrative procedure for the collection, storage, and maintenance of records will be revised to more clearly define record retention periods and the responsible organization by September 30, 1983. The combination of procedure revisions and revised retention indices will achieve a final resolution of this item.

The Records Retention Committee required by NuAP 4.4 was implemented but not as a committee that meets on a regular basis. Since the Authority did not have an existing retention schedule, it was felt that more could be accomplished by contacting each committee member separately. By this method, each committee member and others in their department could identify documents and assign retention dates. This information was used to compile a draft Retention Schedule which was shown to the inspectors. The final version of the schedule pertaining to nuclear documents will be released by the end of April 1983. When the full schedule is released, the retention committee will meet according to the guidelines set down in NuAP 4.4.

3. NRC finding:

The areas of records, storage and retention are in need of additional attention (paragraphs 8.4 and 8.5).

3. Authority response:

The program at JAF will be to continue adding those documents generated on a daily basis to the ARMS computer and to maintain the archival records in vault storage. This vault, when completed, will be designed to meet or exceed all applicable ANSI standards for archival records storage. The completion of the vault by late 1983 and the input of those documents identified in the records retention indices discussed above, will assure that the Authority will meet our October 1984 commitment.



F. Training

1. NRC finding:

The lack of a formal, managed training program was evident throughout the JAF and corporate organizations. There are no training criteria, nor formal training requirements, and no program describing training for Maintenance, Quality Assurance, Quality Control, or Technical Services engineers. This was also true, in general, for corporate organizations.

1. Authority response:

The Authority agrees with this finding. The plant staff reorganization in September 1982 resulted in six additional positions for maintenance training. Fundamentals training reflecting INPO Guidelines began January 3, 1983. Indoctrination and Training Procedures will be revised to reflect INPO Guidelines by May 1, 1983. Qualification Standards and Qualification Cards for maintenance personnel will be completed by September 1, 1983. Skills and plant specific training will commence the second quarter of 1984.

A FitzPatrick Indoctrination and Training procedure for Technical Services Department personnel (ITP-17), was drafted during the last quarter of 1982 to reflect INPO Guideline 82-022. Vendors were invited to bid on the lesson plan development on February 28, 1983. The program implementation date is contingent upon completion of lesson plans.

Procedures dealing with formal training for headquarters personnel are presently under review, and will be revised during the second quarter of 1983 to reflect current Power Authority policies in this area. Headquarters ITP's 2.0, 3.0 and 6.0 will specify methods of formalizing a training program for headquarters personnel, to ensure that they receive appropriate training for their particular job functions.