U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-333/82-23

Docket No. 50-333

License No. DPR-59 Priority _____ Category C

Licensee: Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: Lycoming, New York

Inspection Conducted: November 15 - 18, 1982

Inspectors: Marie T. Mojta 1-10-83
Marie T. Mojta, Radiation Specialist date

for Marie T. Mojta 1-10-83
R. Smith, Radiation Specialist, RI date

Approved by: H. W. Crocker 1/10/83
H. W. Crocker, Chief, Emergecy Preparedness Section date

Inspection Summary: Inspection on November 15 - 18, 1982 (Report No. 50-333/82-23)

Areas Inspected: Announced inspection follow-up of emergency preparedness items from a prior appraisal performed on February 16 - 25, 1982 (Report No. 50-333/82-03. The inspection involved 35 inspector-hours onsite by two regionally-based inspectors.

Results: Of the six Appendix A items and 34 Appendix B items addressed in NRC Report Number 50-333/82-03, four of the Appendix A and 32 of the Appendix B items were verified as corrected. The progress on the uncorrected items is proceeding on schedule with the licensee's commitments and will be examined during a future inspection. No violations were identified.

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Details

1. Persons Contacted

   * N. Avrakotos, Emergency Planning Coordinator
   * R. Burns, Vice-President, BWR Support
   * R. Converse, Superintendent of Power
   * M. Curling, Superintendent of Training
     J. Haley, Supervisor, Security
   * R. Locy, Supervisor, Water Systems
   * C. McNeill, Resident Manager
   * E. Mulcahey, Superintendent of Radiological and Environmental Services and Support
     C. Walker, Administrator, EP Training Program

   *Denotes those present at the exit meeting.

2. General

   During the period of February 16 - 25, 1982, the NRC conducted an appraisal of the state of emergency preparedness at the James A. FitzPatrick Nuclear Power Plant. As a result of this appraisal, the NRC identified six items requiring correction in order for the licensee to achieve an adequate state of onsite emergency preparedness. These findings were documented in a letter to the licensee dated April 29, 1982, and Office of Inspection and Enforcement Inspection Report Number 50-333/82-03. In letters to the NRC dated July 6, 1982, and August 23, 1982, the licensee committed to correct all the significant findings and to consider all the improvement items. The licensee requested an extension of the due date for the completion of items number 2 and 3 until March 31, 1983, and October 31, 1983, respectively. The purpose of this inspection was to review the status of the licensee's actions in relation to resolving these items.

3. Licensee Action on Previous Inspection Findings

   (Closed) 50-333/82-03-01.

   Provisions of written agreements with contractors for health physics support for emergency conditions beyond 24 hours (Appendix B, item 1).

   The inspectors examined a letter of agreement with one contractor and two utilities for support services. The licensee had also contacted other contractors which have not responded at the time of this inspection.

   (Closed) 50-333/82-03-02.

   Establish a centralized training/retraining program which assures coordination and control of all emergency preparedness training activities. Develop selection and qualification criteria for instructors (Appendix A, item 1).

The inspectors reviewed the revised emergency preparedness training/retraining program and confirmed that the program was centralized within the Training Department. The revised Procedure No. 12, dated June 25, 1982, adequately addresses the criteria for training instructors.

(Closed) 50-333/82-03-03.

Include more hands-on training, correct inconsistencies existing among various documents containing training requirements and criteria, provide training for local support personnel in radiation protection and site access, develop a mechanism to assure that all members of the emergency response organization and local support personnel review and are trained in procedural changes, and provide site specific training for non-licensee personnel. (Appendix B, item 2).

The inspectors reviewed the details of lesson plans and methods of instruction with the Emergency Preparedness Training Program Administrator and determined that hands-on training was adequate for selected lesson plans. The inspectors also determined by a review of lesson plans and training procedures that the areas noted in the above item were adequately addressed.

(Closed 50-333/82-03-04.

Designate a central repository for all onsite and offsite emergency training records (Appendix B, item 3).

The inspectors confirmed that a repository had been established onsite for onsite training records and a repository has also been established offsite for the offsite support agencies training records.

(Closed) 50-333/82-03-05

Provide for unrestricted space in the TSC "staffing area" to accommodate all assigned personnel, including support staff, contractor representatives, and NRC personnel, as well as provide ventilation for the TSC which will be comparable to the control room (Appendix B, item 4).

The inspectors examined the TSC and found the space to be adequate. The inspectors also reviewed the efficiency test results of HEPA and carbon adsorbers performed on Septebmer 16, 1982, which showed the filtration system to have 99.99% efficiency for particulates and iodines.

(Closed) 50-333/82-03-06.

Provide for an adequate means of receiving and displaying plant parameter and meteorology data at the EOF and AEOF, as well as provide for necessary, protective clothing; respiratory protection; and dosimetry for EOF personnel (Appendix B, item 5).

The inspectors confirmed that the licensee had equipment for receiving and displaying plant parameter information and meteorology data. The licensee plans to equip the EOF with SCBA equipment during July 1983.

(Closed) 50-333/82-03-07

Re-evaluate reactor coolant sampling and analytical facilities for adequacy assuming a 10 Ci/ml post-accident reactor coolant source term (Appendix B, item 6).

Discussions with the licensee indicated that the interim system had been designed using the NUREG-0578 source term and exposure criteria. The inspectors were informed by the licensee that the NSSS supplier (General Electric) performed an analysis of the post-accident reactor coolant sampling system currently being installed. The results of the analysis indicated that the system would be capable of sampling 10 Ci/ml within the exposure guidelines set forth in NUREG-0737.

(Open) 50-333/82-03-08.

Evaluate facilities, equipment, and procedures for post-accident containment sampling and analysis to determine maximum concentrations that could be handled and analyzed under accident conditions. Provide a written report of the results of the evaluation to the NRC Region I office. (By letter to Mr. Harold Denton, Director, Office of Nuclear Reactor Regulations, dated January 11, 1982, the licensee requested an extension of time to implement post-accident sampling requirements). (Appendix A, item 2).

The inspectors determined that installation of equipment and development of procedures in response to NUREG-0737, item II.B.3, "Post-Accident Sampling" would be completed by March 31, 1983. This date was requested by the licensee in response to NRC Generic Letter 82-10 dated July 27, 1982.

(Open) 50-333/82-03-09.

Develop a plan and schedule for modifying the vent sampling and analytical system to permit the collection, transport, and analysis of post-accident samples of noble gases, radioiodines, and particulates using NUREG-0737 source terms as the basis (Appendix A, item 3).

The inspectors determined that installation of a dilution sample system with appropriate readout and criteria consistent with NUREG-0737, item II.F.1-2, "Accident Monitoring - Iodine/Particulate Sampling" would be completed by October 31, 1983. This date was requested by the licensee in response to NRC Generic Letter 82-05 dated March 17, 1982.

(Closed) 50-333/82-03-10.

Develop an alternate sampling capability for the radwaste building ventilation effluent (Appendix B, item 7).

The inspectors determined that an alternate sampling location for the radwaste building ventilation effluents would not be required. The licensee's response to NUREG-0578, item 2.1.6.b., "Post-Accident Shielding Analysis", reported that the turbine building would have expected dose rates of less than 100 mR/hr in the vicinity of the sampling location. This information is contrary to the 15 to 20 R/hr one hour after an accident that was indicated in the appraisal report.

(Closed) 50-333/82-03-11.

Develop plans and procedures for post-accident sampling and analysis of liquids from systems known to be contaminated or normally contaminated with radioactive material. The procedures will contain guidance relating to: (1) whether the liquids can or should be transferred to other storage facilities, processed or discharged; (2) those precautions to be taken during sampling, and (3) those immediate actions required to evaluate the radiation levels of the liquids (Appendix A, item 4).

The inspectors verified that adequate, procedural guidance for handling post-accident liquid wastes had been developed. The necessary action, steps, and precautions had been incorporated into the following procedures:

PSP-4, "Waste Water Sampling and Analysis," Rev. 3,
RTP-31, "Reactor Water Sampling Post-Accident," Rev. 3 and
OP-49, "Liquid Radioactive Waste System".

(Closed) 50-333/82-03-12.

Evaluate the number of assembly areas if experiences based upon drills and exercises indicate administrative and logistical support problems in the areas of personnel accountability, radiation protection, and decontamination support (Appendix B, item 8).

The inspectors reviewed revised procedures related to accountability and evacuations and confirmed that the number of accountability areas had been reduced to seven outside of the CR and TSC. The procedural revisions were based on the licensee's evaluation.

(Closed) 50-333/82-03-13.

Include the Nine Mile Point decontamination facilities in the mutual support agreement and establish an alternate onsite decontamination facility in the event primary facilities are inaccessible (Appendix B, item 9).

The inspectors examined the mutual support agreement and determined that decontamination facilities are available at the Nine Mile Point facility. The licensee has also determined that an alternate, onsite facility will be made available during emergencies.

(Closed) 50-333/82-03-14.

Finalize installation of telephone communications for media representatives (Appendix B, item 10).

The inspectors noted that the installation for telephone communications for media representatives at the Oswego Naval Militia Building was completed in March 1982. In addition, these telephones were used during the August 8, 1982, annual exercise.

(Closed) 50-333/82-03-15.

Develop procedures for accurately detecting and measuring airborne radioiodine concentrations of 10^{-7} uCi/cc in the presence of noble gases in the field (Appendix A, item 5).

The inspectors verified that revision 1 to RTP-15, "Mini-Scaler Operation for Air Sample Counting", which was included as an attachment to EAP 7.2, "Downwind Survey Dose Estimates", provided an acceptable approach for measuring iodine concentrations of at least 10^{-7} uCi/cc in the presence of noble gases.

However, the inspectors noted although silver zeolite cartridges were the only cartridges in the offsite kits and only silver zeolite cartridges were used during emergency offsite sampling procedure training, charcoal cartridges were referenced in RTP-15 as the sampling media. Discussions with the licensee indicated that a change would be made to RTP-15 to reflect the use of silver zeolite cartridges under special conditions.

(Open) 50-333/82-03-16.

Perform an engineering study of the ARM system and upgrade the system, based on the study. In addition, complete installation and testing of all monitors (Appendix B, item 11).

The inspectors verified that a preliminary evaluation of the ARM system was conducted. Results indicated that several channels of the ARM system require modifications, and that an engineering study be performed to determine alternatives and schedules for system upgrade. No completion date was available.

(Closed) 50-333/82-03-17.

Develop an action plan to implement appropriate recommendations contained in the environmental study (Appendix B, item 12).

The inspectors verified that the environmental qualification of Class IE equipment was addressed in the licensee's response to NRC IE Bulletin 79-01B. It appeared the program commitments, when achieved, will implement the recommendations contained in the environmental study.

(Closed) 50-333/82-03-18.

Establish an alternate stability class determination scheme for use when primary information source cannot provide this parameter; include the characteristic wind direction traces to determine atmosphere stability class in procedure EAP-4, and formalize the preventive maintenance program (Appendix B, item 13).

The inspectors verified that EAP-4, "Dose Estimates From Dose Assessment Calculator", Rev. 2, obtained an alternate method for stability class determination. An automated meteorological system was being developed to permit better access to this information, which is necessary when making Protective Action Recommendations. A formalized, preventive maintenance program will be instituted when the system modification has been completed.

(Closed) 50-333/82-03-19.

Provide assurance that the necessary respiratory protection is available for personnel in the EOF and that SCBAs will be available for each emergency team (Appendix B, item 14).

The inspectors confirmed that the licensee plans to obtain SCBA equipment by July 30, 1983, for the EOF. The licensee also plans to revise EAP 14.2 by December 30, 1982, and describe the use of the AEOF if it becomes necessary to evacuate the EOF.

(Closed) 50-333/82-03-20.

Develop written agreements with other utilities or agencies for obtaining additional supplies and equipment for damage control/corrective actions (Appendix B, item 15).

The inspectors examined written agreements with two other utilities for obtaining additional supplies and equipment.

(Closed) 50-333/82-03-21.

Provide reliable transportation to support the emergency planning effort (Appendix B, item 16).

The inspectors confirmed that the licensee had designated four vehicles for response use which are equipped with radios.

(Closed) 50-333/82-03-22.

Re-evaluate emergency and routine procedures to determine if sufficient emergency response information has been included (Appendix B, item 17).

The inspectors reviewed the emergency implementing procedures and applicable routine procedures and confirmed that they had been revised to provide additional information.

(Closed) 50-333/82-03-23.

Develop unambiguous Emergency Action Levels (EALs) which provide prompt and accurate incident classification. These are to be based upon control room and plant instrumentation and actual plant conditions and include appropriate references to the Emergency Operating Procedures and to the appropriate emergency classification scheme in the Emergency Plan. Update the Emergency Plan and implementing procedures (Appendix A, item 6).

The inspectors reviewed IAP-2, "Classification of Emergency Conditions", dated June 18, 1982, and confirmed that the revised procedure provides a method for prompt and accurate incident classification. Emergency response personnel have received training on the procedure. The licensee had revised appropriate implementing procedures and the Emergency Plan is to be updated by December 14, 1982.

(Closed) 50-333/82-03-24.

Reference all routine procedures necessary to complete assigned tasks in the implementing procedures (Appendix B, item 18).

The inspectors reviewed the revised emergency implementing procedures and confirmed that appropriate routine procedures had been referenced.

(Closed) 50-333/82-03-25.

Clearly indicate in procedure EAP-1 when supporting groups would be notified, based on the level and type of emergency as well as the conditions for issuance of follow-up and close-out messages (Appendix B, item 19).

The inspectors reviewed the revised EAP's 1.1, 1.2, and 1.3 and confirmed that the procedures adequately addressed notifications and follow-up messages.

(Closed) 50-333/82-03-26.

Provide assurance that implementing procedure checklists will be adequate for orchestrating the emergency organization under changing emergency conditions, as well as the assumptions used for the Dose Estimate Calculator are correct (Appendix B, item 20).

The inspectors' review of "Implementing Action Procedure (IAP-1)", Rev. 1, indicated that there were adequate instructions for handling an emergency under changing emergency conditions.

Concerning the assumptions used to construct the dose estimate calculator (nomograph wheel), the licensee stated that a review was being performed. Initial findings indicated that the assumptions had not been modified since the issuance of NUREGs-0578 and 0737. In addition, the licensee stated that an automated assessment system was being installed. The inspectors noted some of the computer hardware was onsite.

(Closed) 50-333/82-03-27.

Develop procedures clarifying survey instrument usage, the collection media for radioiodine sampling, and alternate locations for survey instrumentation (Appendix B, item 21).

A review of the following procedures were made:

EAP-6, "In Plant Emergency Survey", Rev. 1, and
EAP-7.1, "Emergency Out-of-Plant and Downwind Surveys", Rev. 0.

The inspectors determined that these procedures clarified survey instrument usage and referred to the radioiodine sampling media as iodine collection cartridges, rather than charcoal cartridge. This non-specific terminology was chosen to imply the situation when silver zeolite cartridges would be used during conditions of high noble gas releases. The licensee indicated future revisions would specifically address the silver zeolite sampling media.

(Closed) 50-333/82-03-28.

Provide a means of recording in-plant survey data in procedure EAP-6, as well as assurance preprogrammed analysis routines will work with all anticipated samples (charcoal versus silver zeolite cartridges) (Appendix B, item 22).

The inspectors verified that data sheets were available in procedure EAP-6, "In-Plant Emergency Survey", Rev. 1, for recording survey results and other pertinent information. Discussions with the licensee indicated they received information from the silver zeolite vendor stating, "there was no significant difference in geometry factors when counting the samples". The licensee stated they intend to send some silver zeolite cartridges for streamline loading of iodine and subsequent quality assurance tests.

(Closed) 50-333/82-03-29.

Revise procedure RTP-31 to include provisions for a detailed checklist, diagram of sample location and work set-up, and precautions for transporting reactor water samples (Appendix B, item 23).

The inspectors verified that RTP-31, "Reactor Water Sampling Post-Accident," Rev. 3", provided a detailed checklist, diagram of the interim sample location and set-up, and precautions for transporting reactor water samples.

(Closed) 50-333/82-03-30.

Provisions for an alternate counting facility and methods to count highly-radioactive samples within procedure RTP-31, as well as provisions for transmitting the original data sheets to the organizational element responsible for assessment (Appendix B, item 24).

The inspectors determined that RTP-31, "Reactor Wate Sampling Post-Accident," Rev. 3, adequately addressed the methods to count highly-radioactive reactor water samples and included provisions for transmitting the original data sheets to the Emergency Director. The inspectors noted that although alternate counting facilities (i.e., Nine Mile Point, Ginna, RMC hot laboratories) would be available, no specific reference to an alternate counting facility was made.

(Closed) 50-333/82-03-31.

Inclusion of data sheets and specification of reporting requirements to the element of the emergency organization responsible for dose assessment (Appendix B, item 25).

The inspector verified that procedure EAP-1.1, "Offsite Notifications", Rev. 0, contained instructions and data sheets which provide coordinated reporting specifications to the state, local, and plant representatives responsible for dose assessment.

The inspectors noted post-accident containment sampling data will be incorporated into the reporting requirements when the system installation is completed.

(Closed) 50-333/82-03-32.

Provisions of a schematic in procedure RTP-30 for each sample location, define the purpose of the procedure to reflect it's post-accident vent sampling capabilities, and provide sequential action steps for handling and transporting high activity samples (Appendix B, item 26).

The inspectors verified that RTP-30, "Noble Gas Activity Estimation Post-Accident," Rev. 2, provided a schematic for each sample location and a listing of sequential action steps for handling and transporting high activity samples. However, the licensee had not modified the title or purpose of RTP-30 to reflect all the vent sampling capabilities (i.e., noble gas, particulate, and iodine sampling and analysis). The licensee indicated future revisions to RTP-30 would modify the purpose section to address this concern.

(Closed) 50-333/82-03-33.

Provide sequential action steps and cross-references between procedures for handling and analyzing highly-radioactive silver zeolite, particulate, and noble gas vent samples (Appendix B, item 27).

The inspectors verified that RTP-30, "Noble Gas Activity Estimation Post-Accident", Rev. 2, provided sequential action steps for transporting the air effluent samples for analysis. However, the inspectors noted that a list of sequential action steps and a cross-reference to applicable procedures was not available. The licensee stated that this procedure revision will be available by December 30, 1982.

(Open) 50-333/82-03-34.

Revise procedure EAP-8 to include a firm commitment to the 30-minute requirement of NUREG-0654 (Appendix B, item 28).

The inspectors noted that the licensee considers the 30-minute callout as impractical to achieve and unnecessary. The licensee stated that the minimum shift crew would manage the emergency for the initial 60 minutes and would be supplemented as response personnel reported to the plant.

However, the inspectors determined procedure EAP-17, "Emergency Organization Staffing", Rev. 1, did not describe who would handle each of the emergency functions as defined in NUREG-0654, Table B-1. The licensee stated future revisions of EAP-17 would include more information with respect to the On-Shift Emergency Organization.

(Closed) 50-333/82-03-35.

Revise applicable procedures to include provisions for recording the names and brief status of all individuals surveyed for contamination, special considerations for skin contaminated with radioiodine, ensuring that collected data are provided to the organizational element responsible for radiation protection during emergencies, and recording the serial number of the instrument used to conduct the survey (Appendix B, item 29).

The inspectors confirmed that the licensee was in the process of revising the applicable procedures to include the above provisions and plans to complete the revisions by December 30, 1982.

(Closed) 50-333/82-03-36.

Perform an evaluation to determine if radiological and environmental services personnel can reasonably provide radiological support to the various emergency teams, personnel monitoring and decontamination services at restricted areas, and the 15 primary assembly areas (Appendix B, item 30).

The inspectors reviewed revised procedures relating to assembly areas, evacuation, and personnel monitoring. The procedures had been revised, including a reduction in the number of primary assembly areas, based on the licensee's evaluation.

(Closed) 50-333/82-03-37.

Provide a procedure for addressing emergency planning contingencies, i.e., physical barriers, alarm systems, access control, etc., and possible interface for security and local law enforcement personnel (Appendix B, item 31).

The inspectors reviewed special instructions, "Security During Emergencies", which had been issued to the security force and confirmed that security areas were adequately addressed.

(Closed) 50-333/82-03-38.

Revise procedure EAP-13 to include references to the use of Work Activities Control Procedures (WACPs) during emergency conditions (Appendix B, item 32).

The inspectors reviewed EAP-13, dated June 25, 1982, and determined that the procedure contained appropriate references.

(Closed) 50-333/82-03-39.

Revise the emergency plan to include an annual audit (Appendix B, item 33).

The inspectors reviewed the results of an audit that was performed during June 1982 by a group not responsible for the emergency preparedness program. The licensee plans to incorporate the requirements for an annual audit in the revision of the emergency plan to be submitted by December 14, 1982.

(Closed) 50-333/82-03-40.

Revise procedure SAP-1 to indicate how exercise and drill improvement items will be corrected (Appendix B, item 34).

The inspectors confirmed that the licensee is in the process of revising the training program and procedures regarding drills and exercises. The licensee representative stated that SAP-1 would be revised by December 30, 1982.

4. Exit Interview

On November 18, 1982, at the conclusion of the inspection, the inspectors met with persons listed in paragraph 1, and the team leader presented the

scope and findings of the inspection. It was noted that Appendix A items number 2 and 3 would remain open until installation had been completed, procedures implemented, and these actions verified during a future inspection.