

August 10, 1990

Docket No. 50-333

Mr. John C. Brons  
Executive Vice President - Nuclear Generation  
Power Authority of the State of New York  
123 Main Street  
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Dear Mr. Brons:

SUBJECT: ISSUANCE OF AMENDMENT FOR FITZPATRICK (TAC NO. 75525)

The Commission has issued the enclosed Amendment No. 164 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated December 15, 1989.

The amendment updates the diesel generator fuel oil quality limits for water, sediment and ash. It also clarifies the design basis for the diesel fuel oil day tanks and storage tanks.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,

David E. LaBarge, Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 164 to DPR-59
- 2. Safety Evaluation

cc: w/enclosures  
See next page

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DOCUMENT NAME: ISSUANCE OF AMENDMENT 75525

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Power Authority of the State of New York

James A. FitzPatrick Nuclear  
Power Plant

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 164  
License No. DPR-59

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Power Authority of the State of New York (the licensee) dated December 15, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-59 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.164, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 10, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 164

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

| <u>Remove Pages</u> | <u>Insert Pages</u> |
|---------------------|---------------------|
| 218                 | 218                 |
| 224                 | 224                 |
| 244C                | 244C                |

JAFNPP

3.9 Continued

C. Diesel Fuel

There will be a minimum of 64,000 gal. of diesel fuel on site for each operable pair of diesel generators.

1. From and after the time that fuel oil storage tank level instrumentation is made or found to be inoperable for any reason continued reactor operation is permissible indefinitely, provided that the level in the affected storage tank is manually measured at least once/day.

4.9 Continued

6. Once within one hour and at least once per eight hours thereafter, while the reactor is being operated in accordance with Specifications 3.9.B.1, 3.9.B.3 and 3.9.B.4, the availability of off-site power shall be assured by verifying correct breaker alignment and by verifying that the associated off-site electrical line is energized.

C. Diesel Fuel

Once a month the quantity of diesel fuel available in each storage tank shall be manually measured and compared to the reading of the local level indicators to ensure the proper operation thereof.

1. Once a month a sample of the diesel fuel in each storage tank shall be checked for quality as per the following:

|                          |            |
|--------------------------|------------|
| Flash Point - °F         | 125°F min. |
| Pour Point - °F          | 10°F max.  |
| Water & Sediment         | 0.05% max. |
| Ash                      | 0.01% max. |
| Distillation 90% Point   | 540 min.   |
| Viscosity (SSU) at 100°F | 40 max.    |
| Sulfur                   | 1% max.    |
| Copper Strip Corrosion   | No. 3 max. |
| Cetane #                 | 35 min.    |

## JAFNPP

### 3.9 BASES (cont'd)

#### C. Diesel Fuel

Minimum on-site fuel oil requirements are based on operation of the emergency diesel generator systems at rated load for 7 days.

Additional diesel fuel can be delivered to the site within 48 hours.

If one of the Emergency Diesel Generator Systems is not operable, the plant shall be permitted to run for 7 days provided both sources of reserve power are operational. This is based on the following:

1. The operable Emergency Diesel Generator System is capable of carrying sufficient engineered safeguards and emergency core cooling system equipment to cover all loss-of-coolant accidents.
2. The reserve (offsite) power is highly reliable.

#### D. Battery System

125 v DC power is supplied from two plant batteries each sized to supply the required equipment at design power following a loss-of-coolant accident with a concurrent loss of normal and reserve power. Each battery is provided with a charger sized to maintain the battery in a fully charged state while supplying normal operating loads.

#### E. LPCI MOV Independent Power Supplies

There are two LPCI MOV Independent Power Supplies each consisting of a charger, rectifier, inverter and battery. Each independent power supply charger-rectifier is normally fed from the emergency A-C power supply system to maintain the battery in a fully charged state. In the event of a LOCA each independent power supply is automatically isolated from the Emergency A-C power system. The battery and inverter have sufficient capacity to power the MOV's essential to the operation of the LPCI System. A maintenance power source is provided for each LPCI MOV bus whereby in the event its independent power supply is out of service, the LPCI MOV bus may be energized directly from the Emergency A-C Power System.

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A. High Pressure Waster Fire Protection System (Cont'd)

3. If 1. above cannot be fulfilled, place the reactor in Hot Standby within six (6) hours and in Cold Shutdown within the following thirty (30) hours.

A. High Pressure Water Fire Protection System (Cont'd)

| <u>Item</u>  | <u>Frequency</u> |
|--|------------------|
| h. Fire pump diesel engine by verifying the fuel storage tank contains at least 172 gallons of fuel.   | Once/Month       |
| i. Diesel fuel from each tank obtained in accordance with ASTM-D270-65 is within the acceptable limits for quality as per the following:   | Once/Quarter     |
| Flash Point - °F   | 125°F min.       |
| Pour Point - °F  | 10°F max.        |
| Water & Sediment   | 0.05% max.       |
| Ash  | 0.01% max.       |
| Distillation 90% Point   | 540 min.         |
| Viscosity (SSU) @ 100°F  | 40 max.          |
| Sulfur   | 1% max.          |
| Copper Strip Corrosion   | No. 3 max.       |
| Cetane #   | 35 min.          |
| j. Fire pump diesel engine by inspection during shut down in accordance with procedures prepared in conjunction with manufacturers recommendations and verifying the diesel, starts from ambient conditions on the auto start signal and operates for $\geq 20$ minutes while loaded with the fire pump. | Once/18 months   |



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 164 TO FACILITY OPERATING LICENSE NO. DPR-59

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

INTRODUCTION

By letter dated December 15, 1989, the Power Authority of the State of New York (PASNY or the licensee) submitted a proposed amendment requesting changes to the Technical Specifications (TS) for the James A. FitzPatrick Nuclear Power Plant. The amendment would revise Specifications 4.9.C, "Diesel Fuel" and 4.12.A.1.i, "High Pressure Water Fire Protection System" on pages 218 and 244c, respectively, to reflect the current industry standards for diesel fuel oil water and sediment and for ash.

EVALUATION

Diesel fuel oil is used to operate the emergency diesel generators, which supply emergency bus power in the event of loss of the normal off-site supply, and to operate the diesel-driven high pressure fire water system pump (the other fire pump is driven by an electric motor). The industry standards for fuel oil quality are provided by the American Society for Testing Materials (ASTM) in Standard Number ASTM D975-81. In accordance with Regulatory Guide 1.137, this Standard is acceptable for fuel oil stored in the supply tanks associated with the standby diesel generators, unless the manufacturer's recommendations are more restrictive.

In reviewing the Standard, the licensee determined that the present TS limit of 0.5% for water and sediment and the limit of 0.5% for ash were not in agreement with the Standard, which specifies 0.05% and 0.01%, respectively. Therefore, this TS amendment was proposed in order to incorporate the more conservative (i.e., more stringent) limits, limits which are already in effect procedurally at the plant.

The licensee has also proposed a change to Bases 3.9.C on page 224 to clarify the design basis of the diesel fuel oil day tanks and storage tanks. Presently the TS states that the day tank capacity is based on operating a pair of emergency diesel generator units at rated load for three hours. This statement is based on a consumption of 3 gpm with the day tank full and was included for information purposes only. However, these conditions may not exist at any particular time and represent a design condition for the size of the day tanks, not a limitation imposed on the diesel generator fuel oil supply system by the Final Safety Analysis Report (FSAR) or the TS. The minimum amount of fuel oil

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contained in the day tanks at any particular time is determined by the automatic fill valves; which, therefore, means that the level could be anywhere between the makeup level and full. Therefore, the proposed amendment would delete reference to the day tanks.

Another proposed change to the same Bases statement would clarify the amount of fuel oil storage maintained on site. Presently, one sentence in the paragraph states that the minimum on-site fuel oil storage is based on operation of one of the pairs of diesel generators at rated load for 7 days and the next sentence states that the storage tank capacities, when in the full condition, provide enough fuel oil for both diesel generator systems to operate for 7 days. The proposed change would clarify the Bases section by replacing these statements with the another which indicates that the minimum on-site fuel oil requirements are based on operation of the emergency diesel generator system (i.e., all four diesel generators) at rated load for 7 days.

#### SUMMARY

None of these proposed TS changes involve a modification of any existing equipment, systems, or components; nor do they relax any administrative controls or limitations imposed on existing plant equipment. They do not affect the conclusions of the accident analysis presented in the FSAR or the NRC Safety Evaluation Report. The proposed changes are, therefore, acceptable.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 10, 1990

#### PRINCIPAL CONTRIBUTOR:

D. LaBarge