

November 13, 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
White Plains, New York 10601

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Dear Mr. Brons:

SUBJECT: ISSUANCE OF AMENDMENT FOR FITZPATRICK (TAC NO. 76966)

The Commission has issued the enclosed Amendment No. 167 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 June 11, 1990.

The amendment deletes the reference to Regulatory Guide 1.129 in Surveillance Requirements 4.9.E, "Station Batteries" and 4.9.F, "LPCI MOV Independent Power Supplies." The result is application of an equalizing charge to the batteries prior to conducting the performance discharge (capacity) test. Also, consistent terminology and the latest industry standard related to the battery systems are incorporated. The latest industry standard is identified in a change to the Bases section.

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,

ORIGINAL SIGNED BY:

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

Enclosures:

1. Amendment No.167 to DPR-59
2. Safety Evaluation

cc: w/enclosures
See next page

* See previous concurrence

PDI-1:LA	PDI-1:PM	SELB	OGC	D:PDI-1
CVogan	DLaBarge:avl	FRosa	CBarth*	RACapra
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DOCUMENT NAME: FITZPATRICK AMEND TAC NO. 76966

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

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Executive Vice President - Nuclear Generation
Power Authority of the State of New York
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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,

A handwritten signature in black ink, appearing to read "D. LaBarge", with a long horizontal flourish extending to the right.

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

Enclosures:

1. Amendment No. 167 to DPR-59
2. Safety Evaluation

cc: w/enclosures
See next page

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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. 167
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 June 11, 1990, 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.167 , 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: November 13, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 167

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Pages

222
222a
226

Insert Pages

222
222a
226

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3.9 (cont'd)

3. From and after the time that both batteries are made or found to be inoperable for any reason, the reactor shall be in a cold condition within 24 hrs.

4.9 (cont'd)

3. Once each operating cycle not to exceed 18 months the station batteries shall be subjected to a service (duty cycle) test.
4. Once each 5-year interval the station batteries shall be subjected to a performance discharge (capacity) test.
5. Each battery charger shall be visually inspected weekly and a performance test conducted each operating cycle not to exceed 18 months.
6. Once/month: open the battery charger output breakers one at a time and observe performance for proper operation.

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3.9 (cont'd)

F. LPCI MOV Independent Power Supplies

4.9 (cont'd)

F. LPCI MOV Independent Power Supplies

1. Every week the specific gravity, voltage and temperature of each pilot cell, and overall battery voltage shall be measured and chargers and inverters shall be visually inspected.
2. Every three months the following measurements shall be made:
 - a. Voltage of each cell to the nearest of 0.01v;
 - b. Specific gravity of each cell;
 - c. Temperature of every fifth cell.
3. Once each operating cycle not to exceed 18 months the battery shall be subjected to a service (duty cycle) test.
4. Once each 5-year interval the battery shall be subjected to a performance discharge (capacity) test.
5. Each battery charger and inverter shall be visually inspected weekly and a performance test conducted each operating cycle not to exceed 18 months.
6. Once/month: open the battery charger A-C input breakers one at a time and observe performance for proper operation.

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4.9 BASES (cont'd)

D. Battery System

Measurements and electrical tests are conducted at specified intervals to provide indication of cell condition and to determine the discharge capability of the batteries. Performance and service tests are conducted in accordance with the recommendations of IEEE 450-1987.

E. LPCI MOV Independent Power Supply

Measurement and electrical tests are conducted at specified intervals to provide indication of cell condition, to determine the discharge capability of the battery. Performance and service tests are conducted in accordance with the recommendations of IEEE 450-1987.

F. Reactor Protection Power Supplies

Functional tests of the electrical protection assemblies are conducted once each six (6) months utilizing a built-in test device and once per operating cycle by performing an instrument calibration which verifies operation within the limits of Section 4.9.G.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 167 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 June 11, 1990, 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: (1) delete the reference to Regulatory Guide 1.129 in Surveillance Requirement 4.9.E, "Station Batteries" and Surveillance Requirement 4.9.F, "LPCI MOV Independent Power Supplies;" (2) add the term "duty cycle" to Specifications 4.9.E.3 and 4.9.F.3 to indicate that the specifications apply to duty cycle tests; (3) add the term "capacity" to Specifications 4.9.E.4 and 4.9.F.4 to indicate that the specifications apply to capacity tests; and (4) change the Bases section to specify that these tests are conducted in accordance with the Institute of Electrical and Electronics (IEEE) 450-1987 Standard.

The proposed change will result in adoption of the current industry standard for performance of the operating cycle surveillance test and the 5-year interval surveillance test for the station battery system and for the Low Pressure Coolant Injection (LPCI) motor operated valve (MOV) independent power supply (IPS) battery system.

The proposed change is being made due to a commitment made in response to a recent Safety System Functional Inspection (SSFI) concern and documented in Inspection Report No. 50-333/89-80.

EVALUATION

The main station 125-volt battery system provides an independent source of direct current (DC) to the associated DC loads during normal conditions and for safe shutdown of the plant following abnormal operational transients and postulated accidents.

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The two LPCI MOV independent power supplies are designed to provide power to operate three MOVs in each of two LPCI loops and two MOVs in each of two reactor water recirculation loops during normal plant operation and during a loss of offsite power coincident with a design basis Loss-of-Coolant-Accident.

In accordance with plant procedures, the station batteries and the LPCI MOV IPS batteries are subjected to two major tests. A service test (also called a duty cycle test) is performed at 18 month intervals, corresponding to plant operating cycles. The test is performed in an "as-found" condition, without preconditioning, and demonstrates that the batteries are capable of performing their intended safety function.

In contrast, a performance discharge test (also called a capacity test) is performed at 5-year intervals and is designed to trend battery aging and enable determination of when the battery should be replaced. To provide accurate and consistent trend data, the latest industry standard specifies that the test be started from a consistent level of battery charge state, which is attained by performing an equalizing charge prior to performing the discharge test.

TS Sections 4.9.E.3, 4.9.E.4, 4.9.F.3, and 4.9.F.4 contain the testing requirements for these battery systems and states that Regulatory Guide (RG) 1.129 is used as the reference for the tests. This RG endorses IEEE Standard 450-1975 which, as pointed out in the SSFI, does not allow an equalizing charge to be given to the batteries prior to conducting capacity tests. However, the batteries were charged prior to the tests in accordance with plant procedures. A later version of the IEEE Standard for battery testing (IEEE 450-1987) specifies that an equalizing charge be completed more than 3 days and less than 7 days prior to conducting the capacity test. Thus, the procedures but not the TS had been changed to incorporate the new standard.

Even though the new standard has not been formally endorsed by the NRC, the staff has determined that the industry practice of conducting an equalizing charge prior to performing the capacity test is acceptable.

SUMMARY

The purpose of the proposed change is to incorporate the battery testing guidance supplied in the latest industry standard by removing reference to a RG which, in turn, referenced a standard which had been modified. Also, consistent testing terminology would be incorporated and reference to the latest standard would be incorporated. The TS would then be in agreement with the current plant procedures and practices.

The proposed changes do not change the type or frequency of testing, but do result in a more accurate determination of the condition of the batteries. Therefore, the basis for the conclusions reached in the Final Safety Analyses Report and the NRC's Safety Evaluation Report dated November 20, 1972, are not affected. For these reasons the proposed changes are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a surveillance requirement. 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 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: November 13, 1990

PRINCIPAL CONTRIBUTOR:

D. LaBarge