

April 18, 1991

Docket No. 50-333

Mr. Ralph E. Beedle
Executive Vice President - Nuclear Generation
Power Authority of the State of New York
123 Main Street
White Plains, New York 10601

Dear Mr. Beedle:

SUBJECT: ISSUANCE OF AMENDMENT FOR FITZPATRICK (TAC NO. 76465)

The Commission has issued the enclosed Amendment No. 169 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of changes to the Technical Specifications in response to your application transmitted by letter dated April 4, 1990; superseded January 22, 1991.

The amendment revises Table 4.2-2, Minimum Test and Calibration Frequency for Core and Containment Cooling Systems, to eliminate the requirement for functional testing of the time delay relays and timers associated with the High Pressure Coolant Injection (HPCI) System and the Reactor Core Isolation Cooling (RCIC) System high steamline temperature isolation signals.

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,

Brian C. McCabe

Brian C. McCabe, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.169 to DPR-59
- 2. Safety Evaluation

cc: w/enclosures
See next page

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

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2. Safety Evaluation

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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.169
License No. DPR-59

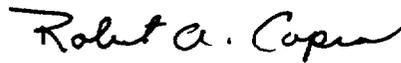
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Power Authority of the State of New York (the licensee) dated April 4, 1990 and superseded January 22, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.169, 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: April 18, 1991

ATTACHMENT TO LICENSE AMENDMENT NO.169

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Page

80

Insert Page

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JAFNPP

TABLE 4.2-2 (Cont'd)

MINIMUM TEST AND CALIBRATION FREQUENCY FOR CORE AND CONTAINMENT COOLING SYSTEMS

Logic System Functional Test			Frequency
1)	Core Spray Subsystem	(7) (9)	Once/6 months
2)	Low Pressure Coolant Injection Subsystem	(7) (9)	Once/6 months
3)	Containment Cooling Subsystem	(9)	Once/6 months
4)	HPCI Subsystem	(7) (9)	Once/6 months
5)	HPCI Subsystem Auto Isolation	(7)	Once/6 months
6)	ADS Subsystem	(7) (9)	Once/6 months
7)	RCIC Subsystem Auto Isolation	(7)	Once/6 months
8)	ADS Relief Valve Bellow Pressure Switch	(7) (9)	Once/operating cycle

NOTE: See listing of notes following Table 4.2-6 for the notes referred to herein.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 169 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

1.0 INTRODUCTION

By letter dated April 4, 1990, and superseded by letter dated January 22, 1991, 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 proposed amendment would revise Table 4.2-2, Minimum Test and Calibration Frequency for Core and Containment Cooling Systems, on page 80, to eliminate the requirement for functional testing of the time delay relays and timers associated with the High Pressure Coolant Injection (HPCI) System and Reactor Core Isolation Cooling (RCIC) System automatic isolation signals on high ambient temperature. This would be accomplished by deleting the reference to footnote (9) for Items 5 and 7 of the table, which contains the requirement to calibrate the time delay relays and timers.

2.0 EVALUATION

The HPCI and RCIC steam supply lines are physically adjacent to each other where the piping penetrates the primary containment, and for a portion of the steam line route to their respective turbines. Steam leak (high ambient temperature) detectors for both the HPCI and RCIC systems could be activated by a leak in either system steam supply piping. Therefore, to reduce the potential for isolation of both systems as a result of a single steam leak, time delay devices (relays and timers) were incorporated into the original design of the automatic isolation logic for both systems. These devices were designed to initiate a short time delay in the event of a steam line or packing leak so that the leak could be manually isolated prior to automatic isolation of the HPCI and RCIC systems.

Although the Final Safety Analysis Report (FSAR) describes the high ambient temperature time delay relays and timers for HPCI and RCIC isolation logic, no credit is taken for them in the High Energy Line Break (HELB) analyses or in the various FSAR accident analyses. Furthermore, since the HPCI and RCIC systems are not required for mitigation of pipe breaks outside of the primary containment, a simultaneous isolation of both the HPCI and RCIC steam supply lines is within the scope of the plant design basis.

The HELB analyses performed to establish pressure-temperature profiles for environmental qualification of plant equipment, assumed no time delay for HPCI or RCIC steam supply isolation. Therefore, elimination of the time delay devices and associated Technical Specification surveillance requirements results in consistency with the HELB analyses. The potential adverse consequences of either HPCI or RCIC turbine steam line breaks are less severe when there is no isolation delay, since the isolation valves will close sooner. Therefore, less coolant inventory is lost through a postulated leak in the HPCI or RCIC steam piping and peak temperatures in the vicinity of the leak will be lower.

Although the time delay devices were originally installed to prevent unnecessary isolations of the HPCI and RCIC systems, current plant monitoring systems which alert the operator to above-normal temperatures, in conjunction with the temperature setpoints being far enough above the normal area temperature, preclude unnecessary isolations. Also, simultaneous isolation of both the HPCI and RCIC steam supply lines during postulated pipe breaks outside of the primary containment does not seriously degrade the safe shutdown capability, since the Low Pressure Coolant Injection (LPCI), in conjunction with the Automatic Depressurization System (ADS), is functionally redundant to the HPCI and RCIC Systems.

The removal of the time delay relays and timers from the HPCI and RCIC isolation signals, and the proposed technical specification amendment deleting the requirement for functional testing of these devices, satisfy the containment and emergency core cooling standards set forth in 10 CFR Part 50. The criteria established in 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light water nuclear power reactors," and 10 CFR Part 50, Appendix A, Criterion 35, "Emergency Core Cooling," are not compromised by the removal of the time delay devices. In the event of simultaneous isolation of both HPCI and RCIC, LPCI operation, in conjunction with ADS, will continue to ensure adequate core cooling. The removal of these time delay devices does not conflict with the reactor containment requirements established in 10 CFR Part 50, Appendix A, Criteria 54, 55, and 56. High area temperatures will still result in automatic steam line isolation and elimination of the time delay circuitry will result in less coolant inventory lost through a postulated leak. Finally, the deletion of the surveillance requirements from the Technical Specifications does not conflict with the requirements established in 10 CFR Part 50, Appendix A, Criterion 37, "Testing of emergency core cooling system," and Criterion 53 "Provisions for containment testing and inspection." All HPCI and RCIC system equipment necessary to ensure adequate core cooling and containment isolation will continue to be functionally tested in accordance with these criteria.

3.0 SUMMARY

Elimination of the time delay relays from the HPCI and RCIC ambient air temperature isolation logic will result in isolation of a steam leak in either

system more quickly should a leak be detected in either steam line. This isolation is within the design capability of the emergency systems and, therefore, will not have a significant adverse effect on plant safety. Thus, the basis for the conclusions reached in the FSAR and the Final Safety Evaluation Report are not changed. Therefore, the staff concludes that the proposed changes are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State Official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change to a surveillance requirement. The NRC 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (55 FR 30308 and 56 FR 9383). 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 the amendment.

6.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor:
B. McCabe

Date: April 18, 1991