



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

February 18, 1993

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 JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
(TAC NO. M84623)

The Commission has issued the enclosed Amendment No. 185 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 September 25, 1992.

The amendment revises Table 3.2-1, "Instrumentation That Initiates Primary Containment Isolation," to reflect a plant modification which installed two additional temperature elements, associated cabling, temperature switches, and circuitry in the area of the Reactor Water Cleanup (RWC) pump suction primary containment penetration.

The FitzPatrick equipment qualification program postulated a high energy line break (HELB) in a 19-foot section of RWC pipe that runs between the containment penetration and the RWC "A" pump room. As a result, two new temperature instrument channels were added to isolate the RWC system from the reactor vessel in the event of a line break in this area. Six existing temperature instrument channels monitor other RWC system areas.

Table 3.2-1 of the FitzPatrick Technical Specifications previously listed six RWC area high temperature instrument channels when eight channels were installed in the plant. This amendment adds these two new channels to correct Table 3.2-1 and to reflect the modification.

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DATED: February 18, 1993

AMENDMENT NO. 185 TO FACILITY OPERATING LICENSE NO. DPR-59-FITZPATRICK

Docket File  
NRC & Local PDRs  
PDI-1 Reading  
S. Varga, 14/E/4  
J. Calvo, 14/A/4  
R. Capra  
C. Vogan  
B. McCabe  
OGC-WF  
D. Hagan, 3302 MNBB  
G. Hill (2), P1-22  
Wanda Jones, P-370  
C. Grimes, 11/F/23  
J. Wermiel, 10/D/24  
P. Eselgroth, Region I  
ACRS (10)  
OPA  
OC/LFMB  
Plant File  
C. Cowgill, Region I

cc: Plant Service list

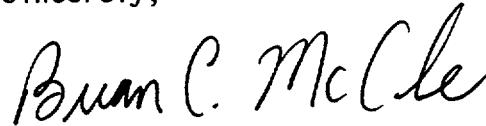
Mr. Ralph E. Beedle

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February 18, 1993

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

Sincerely,

A handwritten signature in black ink that reads "Brian C. McCabe". The signature is written in a cursive style with a large, stylized "B" and "M".

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

Enclosures:

1. Amendment No. 185 to DPR-59
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Ralph E. Beedle  
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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. 185  
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 September 25, 1992, 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:

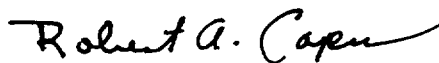
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 185, 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: February 18, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 185

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Page  
64

Insert Page  
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JAFNPP

TABLE 3.2-1

**INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION**

Minimum No. of Operable Instrument Channels Per Trip System (1)	Instrument	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Action (2)
2 (6)	Reactor Low Water Level	$\geq$ 177 in. above TAF	4 Inst. Channels	A
1	Reactor High Pressure (Shutdown Cooling Isolation)	$\leq$ 75 psig	2 Inst. Channels	D
2	Reactor Low-Low-Low Water Level	$\geq$ 18 in. above TAF	4 Inst. Channels	A
2 (6)	High Drywell Pressure	$\leq$ 2.7 psig	4 Inst. Channels	A
2	High Radiation Main Steam Line Tunnel	$\leq$ 3 x Normal Rated Full Power Background (9)	4 Inst. Channels	B
2	Low Pressure Main Steam Line	$\geq$ 825 psig (7)	4 Inst. Channels	B
2	High Flow Main Steam Line	$\leq$ 140% of Rated Steam Flow	4 Inst. Channels	B
2	Main Steam Line Leak Detection High Temperature	$\leq$ 40°F above max ambient	4 Inst. Channels	B
4	Reactor Cleanup System Equipment Area High Temperature	$\leq$ 40°F above max ambient	8 Inst. Channels	C
2	Low Condenser Vacuum Closes MSIV's	$\geq$ 8" Hg. Vac (7)(8)	4 Inst. Channels	B





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 185 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 September 25, 1992, the Power Authority of the State of New York (the licensee) submitted a request for changes to the James A. FitzPatrick Nuclear Power Plant, Technical Specifications (TS). The requested changes would revise Table 3.2-1, "Instrumentation That Initiates Primary Containment Isolation," to reflect a plant modification which installed two additional temperature elements, associated cabling, temperature switches, and circuitry in the area of the Reactor Water Cleanup (RWCU) pump suction primary containment penetration.

The FitzPatrick equipment qualification program postulated a high energy line break (HELB) in a 19-foot section of RWCU pipe that runs between the containment penetration and the RWCU "A" pump room. As a result, two new temperature instrument channels were added to isolate the RWCU system from the reactor vessel in the event of a line break in this area. Six existing temperature instrument channels monitor other RWCU system areas.

Table 3.2-1 of the FitzPatrick Technical Specifications previously listed six RWCU area high temperature instrument channels when eight channels were installed in the plant. This amendment adds these two new channels to correct Table 3.2-1 and to reflect the modification.

2.0 EVALUATION

The purpose of the RWCU Leak Detection System is to close RWCU system primary containment isolation valves when high area temperature indicates a HELB or leak. The system meets single failure criteria by utilizing two instrument channels to perform the system function. Channel A isolates 12MOV-15, the RWCU suction line isolation valve inside containment. Channel B isolates 12MOV-18, the RWCU suction line isolation valve outside containment, and 12MOV-69, the RWCU return line isolation valve outside containment.

Prior to the stated modification adding two temperature channels, the RWCU Leak Detection System provided redundant detection instrumentation in the three equipment rooms (i.e., A and B pump rooms and heat exchanger room) to detect the effect of breaks in the RWCU system. Breaks were postulated in the 6-inch line in the "A" pump room, in the four inch discharge line in the "B" pump room, and close to the inlet of the first regenerative heat exchanger in the heat exchanger room. No breaks are postulated downstream of the first heat exchanger.

The licensee's program to address NRC IE Bulletin 79-01B, "Environmental Qualification of Class IE Equipment," subsequently postulated a high energy line break in a 19-foot section of 6-inch RWCU pipe that runs between the containment penetration and the RWCU "A" pump room. As a result, two new temperature instrument channels (12TE-122A and B) were added to Divisions I and II (Channels A and B) of the RWCU Leak Detection System to provide area temperature monitoring to detect and mitigate the affects of a HELB. The added temperature elements are installed in the vicinity of the 6-inch line. The proximity of the detectors to the assumed break assures that the calculated response time for isolating the RWCU isolation valves will be satisfied. The temperature switches and detectors are Class IE and seismic Category I and the licensee has verified that the range, reliability, equipment qualification and accuracy are adequate to perform their intended function.

The proposed amendment adds the two new "Reactor Cleanup System Equipment Area High Temperature" instrument channels to TS Table 3.2-1 to reflect their installation as part of the equipment qualification program. TS Table 3.2-1 will be revised to change the minimum number of operable instrument channels per trip system from "3" to "4" and the total number of instrument channels provided by design for both trip systems from "6" to "8." The operability requirements and inoperable action statements for the two new instrument channels will be consistent with those in the existing technical specifications. Specifically, the operability requirements of Limiting Condition for Operation (LCO) 3.2.A., "Primary Containment Isolation Functions," will apply to the new instrument channels. Furthermore, if less than four instrument channels are operable per trip system, Action Statement 2.C (Table 3.2-1 on Page 65) will require that the trip system be tripped or the RWCU system be isolated.

The NRC staff has concluded that the two additional temperature instrument channels improve the plant's capability to detect and mitigate a pipe break or leak in the RWCU system. Since the instrumentation monitors an additional area where a postulated pipe break could occur and does not adversely affect plant design, an enhancement to plant safety is recognized. Furthermore, addition of the two new temperature elements does not alter the conclusions of the plant's accident analyses as documented in the Final Safety Analysis Report (FSAR) or the NRC staff's Safety Evaluation Report (SER). The NRC staff finds that the proposed TS requirements for the new temperature

instrument channels are consistent with those currently imposed on the RWCU area high temperature instrumentation outlined in the existing TS Table 3.2-1. These requirements ensure that the temperature monitoring provided by the RWCU Leak Detection System is adequate to detect and mitigate the affects of a HELB. Therefore, the NRC staff has determined that the change to the TS incorporating the new instrument channels into Table 3.2-1 is acceptable.

### 3.0 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.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 (57 FR 58249). Accordingly, the 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.

### 5.0 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:  
Brian C. McCabe

Date: February 18, 1993

Mr. Ralph E. Beedle

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February 18, 1993

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

Sincerely,

Original Signed By:

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

Enclosures:

1. Amendment No. 185 to DPR-59
2. Safety Evaluation

cc w/enclosures:  
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CVogan	BMcCabe	JWentzel	E Holler	RACapra	
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