



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 9, 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. M84622)

The Commission has issued the enclosed Amendment No. 200 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated September 25, 1992.

The amendment revises TS Table 4.6-2 to delete the surveillance requirements for the iodine analyzer portion of the drywell Continuous Atmosphere Monitoring system. The amendment also makes accompanying changes to TS Bases Section 3.6/4.6.D. These changes are consistent with the guidance in Regulatory Guide 1.45, "Reactor Coolant Boundary Leakage Detection Systems."

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 "John E. Menning".

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

Enclosures:

1. Amendment No. 200 to DPR-59
2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. Ralph E. Beedle
Power Authority of the State of New York

James A. FitzPatrick Nuclear
Power Plant

cc:

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Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

DATED: December 9, 1993

AMENDMENT NO. 200 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
M. Griggs
J. Menning
OGC
D. Hagan, 3302 MNBB
G. Hill (2), P1-22
C. Grimes, 11/F/23
ACRS (10)
J. Strosnider, 7/D/4
OPA
OC/LFDCB
PD plant-specific file
C. Cowgill, Region I

cc: Plant Service list

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 200
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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 200, 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: December 9, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 200

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Pages

151
162a

Insert Pages

151
162a

3.6 and 4.6 BASES (cont'd)

leakage were also considered in establishing the limits. The behavior of cracks in piping systems has been experimentally and analytically investigated as part of the USAEC-sponsored Reactor Primary Coolant System Rupture Study (the Pipe Rupture Study). Work utilizing the data obtained in this study indicates that leakage from a crack can be detected before the crack grows to a dangerous or critical size by mechanically or thermally induced cyclic loading, or stress corrosion cracking or some other mechanism characterized by gradual crack growth. This evidence suggests that for leakage somewhat greater than the limit specified for unidentified leakage, the probability is small that imperfections or cracks associated with such leakage would grow rapidly. However, the establishment of allowable unidentified leakage greater than that given in 3.6.D on the basis of the data presently available would be premature because of uncertainties associated with the data. For leakage of the order of 5 gpm as specified in 3.6.D, the experimental and analytical data suggest a reasonable margin of safety such that leakage of this magnitude would not result from a crack approaching the critical size for rapid propagation. Leakage less than the magnitude specified can be detected reasonably in a matter of a few hours utilizing the available leakage detection schemes, and if the origin cannot be determined in a reasonably short time, the Plant should be shut down to allow further investigation and corrective action.

The capacity of the drywell sump pumps is 100 gpm, and the capacity of the drywell equipment drain tank pumps is also 100 gpm. Removal of 50 gpm from either of these sumps can be accomplished with considerable margin.

The performance of the Reactor Coolant Leakage Detection System will be evaluated during the first 5 years of plant operation, and the conclusions of this evaluation will be reported to the NRC.

It is estimated that the main steam line tunnel leakage detectors are capable of detecting a leak on the order of 3,500 lb/hr. The system performance will be evaluated during the first 5 years of plant operation, and the conclusions of the evaluation will be reported to the NRC.

The reactor coolant leakage detection systems consist of the drywell sump monitoring system and the drywell continuous atmosphere monitoring system. The drywell continuous atmosphere monitoring system utilizes a two-channel monitor to provide information on particulate and noble gas activities in the drywell atmosphere. Two independent and redundant systems are provided to perform this function. This system supplements the drywell sump monitoring system in detecting abnormal leakage that could occur from the reactor coolant system. In the event that the drywell continuous atmosphere monitoring system is inoperable, grab sample will be taken on a periodic basis to monitor drywell activity.

JAFNPP

TABLE 4.6-2

Minimum Test and Calibration Frequency for Drywell Continuous Atmosphere Radioactivity Monitoring System

Inst. Channel	Inst. Functional Test	Calibration	Sensor Check
1. Air Particle Analyzer	None	Once / 3 mos.	once / day
2. Gaseous Activity Analyzer	None	Once / 3 mos.	once / day



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 200 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 (TSs). The requested changes would delete the surveillance requirements for the iodine analyzer portion of the drywell Continuous Atmosphere Monitoring (CAM) system from TS Table 4.6-2, "Minimum Test and Calibration Frequency for Drywell Continuous Atmosphere Radioactivity Monitoring System," and make accompanying changes to TS Bases Section 3.6/4.6.D.

The drywell CAM system is part of the reactor coolant system leakage detection system and incorporates a three-channel combination monitor for counting gross particulate, iodine, and noble gas activities in the drywell atmosphere. The CAM system takes a continuous flow sample and passes it through a shielded assembly containing the detector unit before discharging back into the drywell. Measurements are taken and analyzed to determine if there is abnormal reactor coolant leakage into the drywell.

2.0 EVALUATION

Regulatory Guide 1.45 (RG 1.45), "Reactor Coolant Boundary Leakage Detection Systems," recommends that at least three separate reactor coolant pressure boundary leakage detection methods be employed. Two of these methods should be (1) sump level and flow monitoring and (2) airborne radioactivity monitoring. The third method may be either the monitoring of condensate flow rate from air coolers, or the monitoring of airborne gaseous radioactivity. Technical Specification 3/4.6.D, "Coolant Leakage," identifies the plant-specific methods required for detection of reactor coolant leakage. Technical Specification 3/4.6.D requires that the primary containment sump monitoring system and the gaseous and particulate portions of the drywell CAM system be operable during reactor power operation, consistent with RG 1.45.

Technical Specification Table 4.6-2, "Minimum Test and Calibration Frequency for Drywell Continuous Atmosphere Radioactivity Monitoring System," currently specifies calibration and sensor check requirements for the air particulate, gaseous activity, and iodine analyzer portions of the drywell CAM system.

However, as previously discussed, the TSs do not require the iodine portion of the CAM to be operable, consistent with RG 1.45. The licensee has, therefore, proposed to delete the iodine analyzer surveillance requirements from TS Table 4.6-2, and to make accompanying changes to the TS Bases. The requested changes to the TSs would simplify equipment maintenance by not requiring testing, calibration, and repairing of the iodine portion of the CAM system. In addition, future replacement or upgrading of the CAM system would not require the inclusion of an iodine data channel.

The NRC staff has determined that the proposed changes to TS Table 4.6-2 and Bases Section 3.6/4.6.D are consistent with the guidance provided in RG 1.45 and the requirements of TS 3/4.6.D for reactor coolant system leakage detection systems. The staff has, therefore, concluded that the proposed TS changes are acceptable. In addition, the staff has no objections to the proposed Bases changes.

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 and changes surveillance requirements. 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 (58 FR 16229). 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:
M. Griggs

Date: December 9, 1993

December 9, 1993

Docket No. 50-333

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

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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 biweekly Federal Register notice.

Sincerely,

Original signed by:

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

Enclosures:

1. Amendment No. 200 to DPR-59
2. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	PDI-1:LA	PDI-1:PM	PDI-1:PM	EMCB <i>AWH</i>	OGC <i>PH</i>	PDI-1:D <i>roc</i>
NAME	CVogane <i>W</i>	MGriggs: <i>mg</i> awl	JMenning <i>JK</i>	JStrosnider <i>JS</i>	EHoller <i>EH</i>	RACapra
DATE	11/9/93	11/10/93	11/10/93	11/15/93	11/22/93	12/09/93

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