February 15, 1990

Docket No. 50-333

Distribution:
Docket File
NRC & Local PDRs
PDI-1 Rdg — EJordan
SVarga — GHill (4)
BBoger — ACRS (10)
RCapra — WJones
~~JWiggins~~ — JCalvo
DLaBarge — GPA/PA
OGC — OC/LFMB
CVogan — DKatze
DHagan — CMcCracken
J.Linville

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

Dear Mr. Brons:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 71211)

The Commission has issued the enclosed Amendment No.152 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 October 13, 1987, with amplifying information supplied by letter dated March 31, 1989.

The amendment eliminates the requirement to manually scram the reactor from a control rod configuration of less than or equal to 50 percent rod density once per operating cycle.

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.152 to DPR-59
2. Safety Evaluation

cc: w/enclosures
See next page



| OFC | :LA:PDI-1 | :PM:PDI-1 | :SPLB | :OGC | :D:PDI-1 | : | : |
|---|---|---|---|---|---|---|---|
| NAME | :CVogan | :DLaBarge:rc | :CMcCracken | : | :RCapra | : | : |
| DATE | : 1/2/90 | : 1/2/90 | : | : 1/3/90 | : 2/15/90 | : | : |

OFFICIAL RECORD COPY
Document Name: AMENDMENT 71211

DF01
1/1

Mr. John C. Brons
Power Authority of the St[illegible] of New York

James A. [illegible] Nuclear
Power Plant

cc:

Mr. Gerald C. Goldstein
Assistant General Counsel
Power Authority of the State
of New York
1633 Broadway
New York, New York 10019

Resident Inspector's Office
U. S. Nuclear Regulatory Commission
Post Office Box 136
Lycoming, New York 13093

Mr. William Fernandez
Resident Manager
James A. FitzPatrick Nuclear
Power Plant
Post Office Box 41
Lycoming, New York 13093

Mr. J. A. Gray, Jr.
Director Nuclear Licensing - BWR
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Supervisor
Town of Scriba
R. D. #4
Oswego, New York 13126

Mr. J. P. Bayne, President
Power Authority of the State
of New York
1633 Broadway
New York, New York 10019

Mr. Richard Patch
Quality Assurance Superintendent
James A. FitzPatrick Nuclear
Power Plant
Post Office Box 41
Lycoming, New York 13093

Charlie Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, New York 10271

Ms. Donna Ross
New York State Energy Office
2 Empire State Plaza
16th Floor
Albany, New York 12223

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

Mr. A. Klausman
Senior Vice President - Appraisal
and Compliance Services
Power Authority of the State
of New York
1633 Broadway
New York, New York 10019

Mr. George Wilverding, Manager
Nuclear Safety Evaluation
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Mr. R. E. Beedle
Vice President Nuclear Support
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Mr. S. S. Zulla
Vice President Nuclear Engineering
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Mr. William Josiger, Vice President
Operations and Maintenance
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

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. 152
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 October 13, 1987, with amplifying information supplied by letter dated March 31, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 152 , 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

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 15, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 152

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

| Remove Pages | Insert Pages |
|---|---|
| 89a | 89a |
| 90 | 90 |

3.3 (cont'd)

b. The control rod directional control valves for inoperable control rods shall be disarmed electrically.

c. Control rods with scram times greater than those permitted by Specification 3.3.C.3 are inoperable, but if they can be inserted with control rod drive pressure they need not be disarmed electrically.

d. Control rods with a failed "Full-in" or "Full-out" position switch may be bypassed in the Rod Sequence Control System and considered operable if the actual rod position is known. These rods must be moved in sequence to their correct positions (full in on insertion and full out on withdrawal).

e. Control rods with inoperable accumulators or those whose position cannot be positively determined shall be considered inoperable.

f. Inoperable control rods shall be positioned such that Specification 3.3.A.1 is met. In addition, during reactor power operation, no more than one control rod in any 5 X 5 array may be inoperable (at least 4 operable control rods must separate any 2 inoperable ones). If this specification cannot be met the reactor shall not be started, or if at power, the reactor shall be brought to a cold condition within 24 hrs.

4.3 (cont'd)

e. When it is initially determined that a control rod is incapable of normal insertion, an attempt to fully insert the control rod shall be made. If the control rod cannot be fully inserted, a shutdown margin test shall be made to demonstrate under this condition that the core can be made subcritical for any reactivity condition during the remainder of the operating cycle with the analytically determined, highest worth control rod capable of withdrawal, fully withdrawn, and all other control rods capable of insertion fully inserted. If Specification 3.3.A.1 and 4.3.A.1 are met, reactor startup may proceed.

f. The scram discharge volume drain and vent valves shall be full-travel cycled at least once per quarter to verify that the valves close in less than 30 seconds and to assure proper valve stroke and operation.

THIS PAGE IS INTENTIONALLY BLANK

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 152 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 October 13, 1987, the Power Authority of the State of New York (PASNY or the licensee) requested changes to the Technical Specifications (TS) for the James A. FitzPatrick Nuclear Power Plant. The proposed changes would delete the surveillance requirement to manually scram the reactor from a control rod configuration of less than or equal to 50 percent rod density once each operating cycle. This test was intended to verify operability of the scram discharge volume (SDV). Additional information concerning actions taken by the plant after a reactor scram, which verifies proper operation of the scram discharge system, was supplied by letter dated March 31, 1989.

## EVALUATION

The proposed surveillance test to be deleted from the TS was derived from "The Generic Safety Evaluation Report (GSER) for BWR Scram Discharge System," dated December 1, 1980. Surveillance Criteria 3 of the report states that: "The operability of the entire system as an integrated whole shall be demonstrated periodically and during each operating cycle, by demonstrating scram instrument response and valve function at pressure and temperature at approximately 50% control-rod density." This report also specifically states that the word "System" includes all components downstream of the scram exhaust valves. Thus, the only components addressed by this GSER section are the SDV, the SDV instrument volume and associated level instruments, the vent and drain valves, and the interconnecting piping.

The licensee has stated that other surveillance tests required by the TS are intended to assure the operability of the scram discharge system. These tests are the following:

a. Specification 4.3.A.2.b requires the SDV vent and drain valves to be verified as open at least once every 31 days.

b. Specification 4.3.A.2.f requires each SDV vent and drain valve to be full-travel cycled at least once each quarter to verify that the valves close in less than 30 seconds. In that time, there is no pressure rise in the SDV. While these valves are closing, they are subjected to transient similar to that occurring during a scram.

c. Specification 4.3.C.3 requires a scram test by placing the reactor mode switch in the SHUTDOWN position. This test, performed once each operating cycle, verifies the performance of the SDV vent and drain valves. The reactor, however, is not at operating pressure and temperature.

d. Specification 4.3.C.2 requires the individual scram-time testing of 10 percent of the control rods every 16 weeks. In addition to testing the operability of the control rod, this surveillance test demonstrates that the 3/4-inch-diameter line from each tested hydraulic control unit to the SDV is free of any obstructions and provides reasonable assurance that the 8-inch-diameter scram discharge header is unplugged.

By letter dated March 31, 1989, the licensee advised the staff of the actions taken after a reactor scram to verify proper operation of the SDV. After a scram, FitzPatrick Plant Standing Order 53 requires evaluation of the status of alarms for (1) a SDV high level trip, (2) SDV vent and drain closure, and (3) complete rod insertion. The indicators provide sufficient information to determine that the SDV responded normally during the scram.

The staff finds that the combinations of Sections 4.3.A.2.b, 4.3.A.2.f, 4.3.C.2 and 4.3.C.3, along with the after-scram evaluation required by Standing Order 53, provide reasonable assurance of operability of the SDV and the scram discharge system.

In addition, elimination of the surveillance test is desireable since, during the scram evolution, significant stress and shock are placed on the control rod drive mechanism components, specifically the drive seals and the stub tubes. By reducing the number of scrams, unnecessary challenges to the hydraulic control units and other components are reduced.

Also, deletion of this surveillance test is consistent with the testing requirements of many other plants of the same design and is consistent with the testing requirements of the Standard Technical Specifications.

## CONCLUSION

The proposed change reduces the surveillance testing associated with the scram discharge system. Based on our review of the proposed change and the licensee's justification, we conclude that the individual rod scram tests, the vent and drain valve stroke test, and their operability as observed during the reactor mode switch test, along with the after-scram evaluation of status alarms, provide reasonable assurance of operability of the SDV and the scram discharge system. Therefore, the staff finds that the proposed TS change is 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 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: February 15, 1990

PRINCIPAL CONTRIBUTORS:

D. Katze
D. LaBarge