

October 24, 1988

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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JJohnson, RI

Dear Mr. Brons:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
EXEMPTION FROM REQUIREMENTS OF 10 CFR 50.62(c)(4) MINIMUM FLOW
CAPACITY AND BORON CONCENTRATION FOR THE STANDBY LIQUID CONTROL
SYSTEM (SLCS) - JAMES A. FITZPATRICK NUCLEAR POWER PLANT
(TAC 69314)

Enclosed is a copy of an "Environmental Assessment and Finding of No
Significant Impact" for your information. This assessment relates to your
application dated August 24, 1988, by which you requested an exemption from
the requirements of 10 CFR 50.62(c)(4) for the James A. FitzPatrick Nuclear
Power Plant.

This Environmental Assessment has been forwarded to the Office of Federal
Register for publication.

Sincerely,

Harvey Abelson, Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

Enclosure:
Environmental Assessment

cc w/enclosure:
See next page

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subject to
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James A. FitzPatrick Nuclear
Power Plant

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION
POWER AUTHORITY OF THE STATE OF NEW YORK
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
DOCKET NO. 50-333
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of 10 CFR Part 50.62(c)(4) to Power Authority of the State of New York (the licensee), for the James A. FitzPatrick Nuclear Power Plant located in Oswego, New York.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The exemption would grant relief from 10 CFR 50.62(c)(4) to allow the FitzPatrick plant to use an injection rate of 50 gallons per minute (gpm) of 11.5 weight percent sodium pentaborate solution in the standby liquid control system (SLCS). The regulation requires that each boiling water reactor must have a SLCS equivalent in control capacity to 86 gpm with a boron concentration of 13 weight percent sodium pentaborate.

The Need for the Proposed Action:

The exemption is needed because the licensee proposes to depart from 10 CFR Part 50.62(c)(4) requirements, as a result of the FitzPatrick plant having a reactor vessel diameter which is smaller than that used to establish the minimum flow and boron content requirements set forth in the regulation, and the licensee's use of enriched boron in the sodium pentaborate solution. In the

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licensee's request for amendment dated August 24, 1988, the licensee proposed to use an injection rate of 50 gallons per minute of 11.5 weight percent sodium pentaborate solution because its vessel diameter is 218 inches, in comparison to the 251 inches which is the basis for the 86 gallons per minute requirement, and because the sodium pentaborate solution will be made up from boron enriched to 34.7 atom percent Boron-10 isotope.

Generic Letter 85-03 "Clarification of Equivalent Control Capacity for Standby Liquid Control Systems," dated January 28, 1985 states, in part:

The "equivalent in control capacity" wording was chosen to allow flexibility in implementation of the requirement.

The 86 gallons per minute and 13 weight percent sodium pentaborate concentration were values used in NEDE-24222, "Assessment of BWR Mitigation of ATWS, Volumes I and II," December 1979 for BWR/4, BWR/5, and BWR/6 plants with 251-inch diameter vessels. NEDE-24222 recognized that different values would provide equivalent control capacity for smaller plants.

Environmental Impacts of the Proposed Action:

The exemption provides a degree of protection for the FitzPatrick reactor equivalent to that required by the regulation for reactors with larger reactor vessels for prompt injection of negative reactivity into a boiling water reactor pressure vessel in the event of an Anticipated Transient Without Scram (ATWS). The exemption will not affect containment integrity, nor the probability of facility accidents. Thus, post-accident radiological releases will not be greater than previously determined, nor will the granting of the proposed exemption otherwise effect radiological plant effluents, or result in any significant occupational exposure. Likewise, the exemption will not affect non-radiological environmental impacts associated with the proposed exemption.

Alternatives to the Proposed Action:

Because it has been concluded that there is no measurable environmental impact associated with the proposed exemption, any alternatives to the exemption will have either no environmental impacts or greater environmental impacts.

The principal alternative to granting the exemption would be to deny the requested exemption. Such action would not reduce environmental impacts of the FitzPatrick plant's operation and would not enhance the protection of the environment.

Alternative Use of Resources:

This does not involve the use of resources not previously considered in connection with the Final Environmental Statement (construction permit and operating license) for the James A. FitzPatrick Nuclear Power Plant.

Agencies and Persons Consulted:

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.


FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed exemption. Based on the foregoing environmental assessment, the staff concludes that the proposed action will not have a significant effect on the quality of human environment.

For further information with respect to this action, see the request for amendment dated August 24, 1988, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington, D.C. and at the Penfield Library, State University College of Oswego, Oswego, New York.

Dated at Rockville, Maryland, this 24th day of October , 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, reading "Robert A. Capra". The signature is fluid and cursive, with a long horizontal stroke at the end.

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects, I/II