

October 24, 1988

Docket No. 50-333

Distribution

Docket file	OGC
NRC PDR	EJordan
Local PDR	BGrimes
SVarga	ACRS (10)
BBoger	GPA/PA
CVogan	JJohnson, RI
HAbelson	

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: 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

PDI-1 *CV* 10/12/88  
CVogan  
9/29/88

*H*  
PDI-1  
HAbelson:vr  
9/29/88

*RA*  
PDI-1  
RCapra  
10/29/88

OGC  
*Watt*  
10/19/88  
*subject to  
re-examination*

*Per 10/25/88 phone call  
is not subject to Sholly  
operation date*  
CVogan  
10/25/88

*DF01  
1/1*

8810280018 881024  
PDR ADOCK 05000333  
P PDC

*OP 1*

Mr. John C. Brons  
Power Authority of the State of New York

James A. FitzPatrick Nuclear  
Power Plant

cc:

Mr. Gerald C. Goldstein  
Assistant General Counsel  
Power Authority of the State  
of New York  
10 Columbus Circle  
New York, New York 10019

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

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

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

Mr. Radford J. Converse  
Resident Manager  
James A. FitzPatrick Nuclear  
Power Plant  
Post Office Box 41  
Lycoming, New York 13093

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

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

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

Mr. Robert P. Jones, Supervisor  
Town of Scriba  
R. D. #4  
Oswego, New York 13126

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. J. P. Bayne, President  
Power Authority of the State  
of New York  
10 Columbus Circle  
New York, New York 10019

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

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

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

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

8810280020 881024  
PDR ADDCK 05000333  
PDC

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.

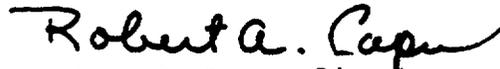
FINDING OF NO SIGNIFICANT IMPACT

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 24<sup>th</sup> day of October , 1988.

FOR THE NUCLEAR REGULATORY COMMISSION



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