



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
September 18, 1991

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 A TECHNICAL EXEMPTION FROM A REQUIREMENT OF 10 CFR PART 50, APPENDIX R, FOR THE JAMES A. FITZPATRICK NUCLEAR POWER PLANT (TAC NO. 81184)

By letter dated July 31, 1991, and supplemented by letter dated August 6, 1991, the Power Authority of the State of New York requested an exemption from a specific technical requirement of 10 CFR Part 50, Appendix R, for the James A. FitzPatrick Nuclear Power Plant.

The U. S. Nuclear Regulatory Commission, pursuant to 10 CFR 50.12, has granted the enclosed technical exemption to 10 CFR Part 50, Appendix R, Section III.G.3. The exemption pertains to the requirement to have a fixed fire suppression system in the Battery Corridor Room.

We find that granting the exemption is authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security and meets the special circumstances described in 10 CFR 50.12(a)(2)(ii), in that application of the regulation is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50. Therefore, your request for exemption is granted.

Although the current level of fire protection in the Battery Room Corridor was found, by the NRC staff, to provide an equivalent level of fire safety to that

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Mr. Ralph E. Beedle

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September 18, 1991

required by 10 CFR Part 50, Appendix R, Section III.G.3, in your letter dated August 16, 1991, you committed to install a fixed fire suppression system in this area prior to startup from the 1992 refueling outage. This commitment was made as part of the fire protection program improvement efforts currently being conducted at the FitzPatrick Plant.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert A. Capra".

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

Enclosure:  
Exemption

cc w/enclosure:  
See next page

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

James A. FitzPatrick Nuclear  
Power Plant

cc:

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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 OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
POWER AUTHORITY OF THE )  
STATE OF NEW YORK )  
 )  
(James A. FitzPatrick )  
Nuclear Power Plant) )

Docket No. 50-333

EXEMPTION

I.

The Power Authority of the State of New York (PASNY/licensee) is the holder of Facility Operating License No. DPR-59, which authorizes operation of the James A. FitzPatrick Nuclear Power Plant (the facility). The license provides, among other things, that the facility is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

The facility is a boiling water reactor located at the licensee's site in Oswego County, New York.

II.

On November 19, 1980, the Commission published a revised Section 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981.

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Section III.G of Appendix R to 10 CFR Part 50, requires that where cables or equipment of redundant trains of systems necessary to achieve and maintain hot shutdown conditions are located within the same fire area outside of primary containment, one of the following means of ensuring that one of the redundant trains is free of fire damage shall be provided:

- a. Separation of cables and equipment and associated non-safety circuits of redundant trains by a fire barrier having a 3-hour rating. Structural steel forming a part of or supporting such fire barriers shall be protected to provide fire resistance equivalent to that required of the barrier;
- b. Separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustible or fire hazards. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area; or
- c. Enclosure of cable and equipment and associated non-safety circuits of one redundant train in a fire barrier having a 1-hour rating. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area.

If these conditions are not satisfied, Section III.G.3 of Appendix R to 10 CFR Part 50 requires alternative shutdown capability independent of the fire area of concern. Furthermore, this section requires that fire detection and a fixed fire suppression system be provided in areas, rooms, or zones for which alternate shutdown capability is provided.

By letter dated July 31, 1991, and supplemented by letter dated August 6, 1991, the licensee requested an exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.3. Specifically, the requested exemption pertains to the requirement to have a fixed suppression system in the Battery Room Corridor.

The Commission may grant exemptions from the requirements of the regulations which, pursuant to 10 CFR 50.12(a), are: (1) authorized by law and will not endanger life or property or common defense and security and are otherwise in the public interest, and (2) present special circumstances. Section 50.12(a)(2)(ii) of 10 CFR Part 50 indicates that special circumstances exist when application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

### III.

The proposed exemption is needed as the result of the licensee's investigation of deficiencies identified during a review of the FitzPatrick fire protection program.

The licensee recently determined that redundant cables for safe shutdown systems are located in the Battery Room Corridor Fire Zone BR-5. Alternative shutdown capability is required for this area as a result of possible loss of Divisions "A" and "B" cabling due to a fire in the area. Modifications previously implemented in Fire Zone BR-4 to ensure alternative shutdown capability for a fire in the main control room also ensure alternative shutdown capability for a fire in Fire Zone BR-5. This alternative shutdown

capability is provided by the provision of Division "B" dc power to the remote shutdown panels via distribution panel 71 DC-B4 (Fire Zone EG-6). Automatic fire detection is provided for the Battery Room Corridor; however, fixed fire suppression system capability is not. As a result, the Battery Room Corridor is not in compliance with Section III.G.3 of Appendix R to 10 CFR Part 50.

The Battery Room Corridor has low combustible loading consisting primarily of cable insulation. Any fire in the insulation would be expected to develop slowly. Furthermore, this corridor has an equivalent fire severity of less than one hour. Automatic detection consisting of ceiling mounted ionization detectors is provided in this corridor. Potential fires in the Battery Room Corridor would involve primarily cable insulation located in trays near ceiling level or in vertical risers along the south wall. Fires of this nature would be detected in the incipient stage, with alarm notification in the continuously-manned main control room. Alarm notification would result in prompt dispatch of the fire brigade for rapid initiation of manual fire fighting activities. Portable extinguishers and manual hose stations are provided in the Battery Room Corridor and adjacent areas to assist in this fire fighting effort. Reasonable assurance is provided that manual fire fighting activities would result in prompt extinguishment of postulated fires. Since alternate shutdown capability is provided independent of the fire area of concern, any fire that was to occur in the Battery Room Corridor would not affect the ability of the plant to achieve and maintain safe shutdown.

Based on the above evaluation, the staff concluded that application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50. The current level of fire protection in the Battery Corridor provides an equivalent level of fire safety as that required by 10 CFR Part 50, Appendix R, Section III.G.3, and does not adversely affect plant safety.

Therefore, an exemption to the requirements of Section III.G.3 of Appendix R to 10 CFR Part 50 in relation to fixed fire suppression in the Battery Room Corridor should be granted.

#### IV.

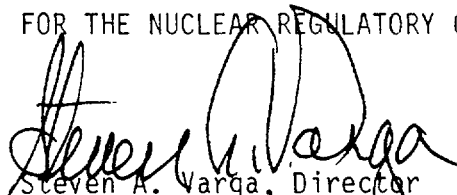
Accordingly, the Commission has determined, pursuant to 10 CFR 50.12(a), that (1) the exemption as described in Section III. is authorized by law and will not endanger life or property or common defense and security and is otherwise in the public interest, and (2) in this case, special circumstances are present in that application of the regulation is not necessary to achieve the underlying purpose of 10 CFR Part 50, Appendix R.

Accordingly, the Commission hereby grants the exemption from the requirements of Section III.G.3 of Appendix R to 10 CFR Part 50 regarding a fixed fire suppression system in the Battery Room Corridor.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption would have no significant effect on the quality of the human environment. (56 FR 42363, August 27, 1991).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,  
this 18th day of September, 1991

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption would have no significant effect on the quality of the human environment (56 FR 42363, August 27, 1991).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

**ORIGINAL SIGNED BY:**

Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,  
this 18th day of September 1991

\*See previous concurrence

OFC	:PDI-1:LA	:PDI-1:PM	:SPLB	:OGC	:PDI-1:D
NAME	:CVogan <i>CV</i>	:BMcCabe:av1 <i>av1</i>	:*CMcCracken	:*	:RAC <i>RAC</i>
DATE	:9/17/91	:9/17/91	:09/03/91	:09/05/91	:9/17/91
OFC	:ADRI <i>JAC</i>	:DRPE	:	:	:
NAME	:JCalvo	:S.Varga <i>S.Varga</i>	:	:	:
DATE	:9/18/91	:9/18/91	:	:	:

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required by 10 CFR Part 50, Appendix R, Section III.G.3, in your letter dated August 16, 1991, you committed to install a fixed fire suppression system in this area prior to startup from the 1992 refueling outage. This commitment was made as part of the fire protection program improvement efforts currently being conducted at the FitzPatrick Plant.

Sincerely,  
ORIGINAL SIGNED BY:

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

Enclosure:  
Exemption

cc w/enclosure:  
See next page

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\*See previous concurrence

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