



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

August 20, 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: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
EXEMPTION FROM THE REQUIREMENTS OF 10 CFR PART 50, APPENDIX R,
SECTION III.G.3 FOR THE JAMES A. FITZPATRICK NUCLEAR POWER PLANT,
(TAC NO. 81184)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to your application dated July 31, 1991, and supplemented by letter dated August 6, 1991. You specifically requested an exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.3, which requires licensees to have an automatic fire suppression system for areas containing redundant trains of safe shutdown cables.

During a recent review of the FitzPatrick Fire Protection Program, your staff determined that redundant cables for safe shutdown systems are located in the Battery Room Corridor. Automatic detection is provided for this corridor; however, automatic suppression system capability is not. As a result, the Battery Room Corridor is not in compliance with the requirements of Section III.G.3 of 10 CFR Part 50, Appendix R.

Your basis for the request is that the provision of automatic suppression in the Battery Room Corridor would not significantly improve the existing fire protection features. Specifically, reasonable assurance is provided that manual fire fighting activities would result in prompt extinguishment of postulated fires. Furthermore, in the unlikely event of fire in this fire zone, and damage to the redundant safe shutdown cables, alternate shutdown capability is provided.

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Mr. Ralph E. Beedle

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August 20, 1991

The notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Handwritten signature of Brian C. McCabe in cursive script.

Brian C. McCabe, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment

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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New York, New York 10271

UNITED STATES NUCLEAR REGULATORY COMMISSION
POWER AUTHORITY OF THE STATE OF NEW YORK
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 10 CFR Part 50, Appendix R, "Fire Protection Program For Nuclear Power Facilities Operating Prior To January 1, 1979," Section III.G.3, to the Power Authority of the State of New York (PASNY/licensee) for the James A. FitzPatrick Nuclear Power Plant, located at the licensee's site in Oswego County, New York.

Environmental Assessment

Identification of Proposed Action:

Section III.G of 10 CFR Part 50, Appendix R, 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 10 CFR Part 50, Appendix R, 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.

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 detection is provided for the Battery Room Corridor; however, automatic suppression system capability is not. As a result, the Battery Room Corridor is not in compliance with Section III.G.3 of 10 CFR Part 50, Appendix R.

The Need for the Proposed Action:

The proposed exemption is needed to permit the licensee to operate the plant without being in violation of the Commission's requirements.

Environmental Impact of the Proposed Action:

The proposed exemption is from the requirement of 10 CFR Part 50, Appendix R, Section III.G.3, to have an automatic fire suppression system for areas containing redundant trains of safe shutdown cables, specifically the Battery Room Corridor (Fire Zone BR-5).

The Battery Room Corridor has a combustible loading consisting of cable insulation, with an equivalent fire severity of under 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. Furthermore, in the unlikely event of fire in this fire zone, and damage to the redundant safe shutdown cables, alternate shutdown capability is provided.

Based on the considerations above, the staff concludes that granting the proposed exemption will not increase the probability of an accident and will not result in any post-accident radiological releases significantly in excess of those previously determined for James A. FitzPatrick Nuclear Power Plant. The proposed exemption would not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. In addition, the exemption does not affect non-radiological plant effluents and has no other environmental impact.

Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with the proposed exemption.

Alternative to the Proposed Action:

Since the Commission has concluded that there are no measurable environmental impacts associated with the proposed exemption, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemption would be to require rigid compliance with the requirements of 10 CFR Part 50, Appendix R, Section III.G.3. Such action would not enhance the protection of the environment. Furthermore, the installation of an automatic fire suppression system would result in additional costs to the licensee without adding any benefits already available by the independent shutdown capability.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement for the James A. FitzPatrick Nuclear Power Plant," dated March 1973.

The notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,

ORIGINAL SIGNED BY:

Brian C. McCabe, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment

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Mr. Ralph E. Beedle

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Sincerely,

ORIGINAL SIGNED BY:

Brian C. McCabe, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
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Environmental Assessment

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