



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 21, 1994

Mr. William J. Cahill, Jr.
Executive Vice President - Nuclear
Generation
Power Authority of the State of New York
123 Main Street
White Plains, NY 10601

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 INDIAN POINT NUCLEAR GENERATING UNIT
NO. 3 (TAC NO. M88260)

Dear Mr. Cahill:

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to the Power Authority of the State of New York (PASNY) application dated November 17, 1993, as supplemented September 6, 1994, in which PASNY requested an exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.3, which specify requirements to ensure that the alternate shutdown system is independent of shutdown equipment that does not meet the requirements of Section III.G.2 of Appendix R. Section III.G.2 of Appendix R specifies requirements to ensure that one train of redundant equipment necessary to achieve and maintain hot shutdown remains free of fire damage.

During a programmatic review of the Fire Protection Program and Appendix R compliance strategy at Indian Point Nuclear Generating Unit No. 3, PASNY identified that the alternate shutdown system did not meet the requirements of 10 CFR Part 50, Appendix R, Section III.G.3. Specifically, components in the alternate shutdown system were located in the same fire area as redundant shutdown instrumentation cables which did not meet the requirements of Section III.G.2 of Appendix R.

PASNY specifically requested an exemption from Section III.G.3, to allow an operator to enter the fire area to perform manual actions. The operator actions (in Fire Area ETN-4, at the penetration area) would include repositioning switches at the instrument isolation cabinets which would align instrument indication to the alternate shutdown panels.

The PASNY justification was based on quick detection of a fire in the subject area, manual and automatic fire suppression capabilities, slow progress of a fire due to the construction of the cables, no operator actions in the vicinity of the fire, operator access to instrument isolation cabinets through

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the Primary Auxiliary Building (independent of the fire location), minimal time required to accomplish the necessary tasks, and a smoke analysis which demonstrates that the operator actions would not be inhibited by smoke.

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

Sincerely,



Nicola F. Conicella, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure: Environmental Assessment

cc w/encl: See next page

Mr. William J. Cahill, Jr.
Power Authority of the State
of New York

Indian Point Nuclear Generating
Station Unit No. 3

cc:

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Indian Point 3 Nuclear Power Plant
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UNITED STATES NUCLEAR REGULATORY COMMISSION

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

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, 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 (the licensee) for the Indian Point Nuclear Generating Unit No. 3 (IP3), located at the licensee's site in Westchester County, New York.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

Section III.G.3 of 10 CFR Part 50, Appendix R, specifies requirements to ensure that the alternate shutdown system is independent of shutdown equipment that does not meet the requirements of Section III.G.2 of Appendix R. Section III.G.2 of Appendix R specifies requirements to ensure that one train of redundant equipment necessary to achieve and maintain hot shutdown remains free of fire damage.

During a programmatic review of the Fire Protection Program and Appendix R compliance strategy at Indian Point Nuclear Generating Unit No. 3, the Power Authority of the State of New York identified that the alternate shutdown system did not meet the requirements of 10 CFR Part 50, Appendix R, Section III.G.3. Specifically, components in the alternate shutdown system were located in the same fire area as redundant shutdown instrumentation cables which did not meet the requirements of Section III.G.2 of Appendix R.

The licensee has, therefore, requested exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.3, to allow an operator to enter the fire area to perform manual actions.

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 regulations and to obviate the need for modifications. Physical modification of the plant to achieve compliance with 10 CFR Part 50, Appendix R, Section III.G.3, would require design changes, for example: wrapping one redundant train of instrumentation cables in a 1 hour fire wrap, or relocation of the instrument isolation cabinets out of fire area ETN-4 or the construction of fire barriers to make the upper penetration area a separate fire area. The detailed development and implementation of such design changes would result in a significant expenditure of engineering and financial resources without a significant safety benefit.

Environmental Impacts of the Proposed Action:

Section III.G.3 of 10 CFR Part 50, Appendix R, specifies requirements to ensure that the alternate shutdown system is independent of shutdown equipment that does not meet the requirements of Section III.G.2 of Appendix R. Section III.G.2 of Appendix R specifies requirements to ensure that one train of redundant equipment necessary to achieve and maintain hot shutdown remains free of fire damage. The licensee has determined that the alternate shutdown system does not meet these requirements because components in the alternate shutdown system were located in the same fire area as redundant shutdown instrumentation cables which did not meet the requirements of Section III.G.2

of Appendix R. The licensee has, therefore, requested exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.3, to allow an operator to enter the fire area to perform manual actions.

Safe shutdown, during a postulated fire in the entryway tunnel, would be accomplished through use of the alternate safe shutdown system. Process monitoring information to support use of the alternate shutdown system is routed to the alternate safe shutdown locations through instrument isolation cabinets located in the upper electrical penetration area. These cabinets provide the operators with the ability to interrupt the normal signal paths routed to the central control room and reconfigure the instrument loops to provide instrument loop indication at the alternate safe shutdown panels located outside of the control room. The instrument loops cannot be remotely reconfigured, necessitating operator action in the fire affected area.

The fire hazard incurred by the operator during this action is minimal for several reasons. Because of the glass and asbestos braid construction of the cables in these areas, fire is not expected to propagate along the cables to any significant degree. A postulated fire in the entryway would be detected and extinguished, through manual or automatic means, before the fire became extensive. Additionally, the distance from the fire to the cabinets is approximately 165 feet and, while in the fire affected area, an operator would not be in the immediate vicinity of the fire. Furthermore, the operator would not be in the affected area for more than a few minutes and would access the area via the primary auxiliary building, avoiding the vicinity of the fire. A smoke analysis has shown that the amount of smoke in the area would not

inhibit the necessary operator actions. Therefore, the proposed exemption would not affect the licensee's ability to implement alternate safe shutdown procedures.

Based on the considerations discussed above, the Commission concludes that the proposed exemption would not affect radiological plant effluents, nor result in any significant occupational exposure. In addition, the exemption does not affect nonradiological plant effluents and has no other environmental impact.

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

Alternatives to the Proposed Action:

As an alternative to the proposed action, the Commission considered denial of the proposed action. Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar. The alternative would also result in a significant expenditure of engineering and financial resources, without a significant safety benefit.

Alternate Use of Resources:

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement for the Indian Point Nuclear Generating Station Unit No. 3," dated February 1975.

Agencies and Persons Consulted:

The Commission consulted with the State of New York regarding the environmental impact of the proposed action.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the exemption under consideration.

Based upon the foregoing environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for exemption dated November 17, 1993, as supplemented September 6, 1994. This document is available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW, Washington, DC 20555, and at the White Plains Public Library, 100 Martine Avenue, White Plains, New York.

Dated at Rockville, Maryland, this 21st day of September 1994.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael J. Case, Acting Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

the Primary Auxiliary Building (independent of the fire location), minimal time required to accomplish the necessary tasks, and a smoke analysis which demonstrates that the operator actions would not be inhibited by smoke.

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

Sincerely,

ORIGINAL SIGNED BY:

Nicola F. Conicella, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure: Environmental Assessment

cc w/encl: See next page

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*See previous concurrence

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