

July 3, 1997

Mr. James W. Langenbach
Vice President and Director, TMI
GPU Nuclear Corporation
Three Mile Island Nuclear Station
Post Office Box 480
Middletown, Pennsylvania 17057-0480

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
REGARDING AN EXEMPTION FROM REQUIREMENTS OF 10 CFR PART 50,
APPENDIX R - THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1
(TAC NO. M96473)

Dear Mr. Langenbach:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated August 16, 1996, as supplemented by letters dated August 28, 1996, and January 3, 1997. The proposed action would grant an exemption from the requirements of 10 CFR 50, Appendix R to the extent that it requires the installation of automatic fire suppression systems in certain fire areas.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

Bartholomew C. Buckley, Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure: Environmental Assessment

cc w/encl: See next page

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Three Mile Island Nuclear Station, Unit No. 1

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UNITED STATES NUCLEAR REGULATORY COMMISSIONGPU Nuclear CorporationDocket No. 50-289Three Mile Island Nuclear Station, Unit 1ENVIRONMENTAL ASSESSMENT AND FINDING OFNO 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 to GPU Nuclear Corporation (the licensee), for operation of the Three Mile Island Nuclear Station, Unit 1 (TMI-1), located in Dauphin County, Pennsylvania.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would grant an exemption from the requirements of 10 CFR Part 50, Appendix R to the extent that it requires the installation of automatic fire suppression systems in certain fire areas. The licensee is seeking an exemption from Appendix R, Section III.2.G.c, which requires the installation of automatic fire suppression systems in fire areas where redundant circuits required for safe shutdown are separated by fire barriers having a 1-hour rating and have fire detectors installed. The licensee requested exemptions for the following fire areas/zones: CB-FA-2b, CB-FA-2c, CB-FA-2d, CB-FA-2e, CB-FA-2f, CB-FA-2g, CB-FA-3a, CB-FA-3b, and FH-FZ-5.

The proposed action is in accordance with the licensee's application for exemption dated August 16, 1996, as supplemented by letters dated August 28, 1996, and January 3, 1997.

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The Need for the Proposed Action:

Installation of automatic fire suppression systems in the affected fire areas is not a viable alternative. The affected fire areas contain high voltage plant electrical equipment where automatic water suppression systems are not desirable. Halon gas suppression systems are no longer a viable option due to the environmental concerns. The affected fire areas and adjoining spaces are frequently occupied by plant personnel, therefore carbon dioxide suppression systems are not desirable due to the personnel hazard. Modification of the fire barrier envelopes within the affected fire areas to achieve a 3-hour rating, and therefore eliminating the need for fire suppression systems, would represent a substantial cost hardship.

Environmental Impacts of the Proposed Action:

In lieu of an automatic sprinkler system, the licensee will install an area-wide automatic detection system in the affected fire areas and will establish that all the fire barrier envelopes within the affected fire areas have a minimum 1-hour fire endurance rating. Manual firefighting equipment is available either inside, or in close proximity to, all of the affected fire areas. Fire brigade response to these fire areas is expected to be rapid. Also, administrative controls limit the amount of combustibles in the affected fire areas.

The Commission has completed its evaluation of the proposed action and has concluded that the degree of fire protection afforded by the area-wide detectors, the minimum 1-hour rated fire barriers, the close proximity and rapid response of firefighting equipment, and certain administrative controls provide reasonable assurance that the ability to perform safe shutdown

functions in the event of a fire will be maintained. This evaluation is applicable to the following fire areas identified in the licensee's submittal: CB-FA-2b, CB-FA-2c, CB-FA-2d, CB-FA-2e, CB-FA-2f, CB-FA-2g, CB-FA-3a, and CB-FA-3b.

Granting an exemption from the regulation for these fire areas will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action involves features located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

As an alternative to the exemption, the Commission considered denial of the proposed action, thus requiring the licensee to upgrade the existing fire barrier envelopes to a 3-hour rating, or install automatic fire suppression systems. For fire areas CB-FA-2b, CB-FA-2c, CB-FA-2d, CB-FA-2e, CB-FA-2f, CB-FA-2g, CB-FA-3a, and CB-FA-3b, the Commission concluded denial would result in no change in current environmental impacts.

For fire zone FH-FZ-5, the Commission concluded that, due to the high combustible loading associated with this fire zone, upgrading to a 3-hour fire

barrier would have a measurable benefit. Denial of the proposed action with respect to fire zone FH-FZ-5 would result in no change to current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for TMI-1.

Agencies and Persons Consulted:

In accordance with its stated policy, on June 6, 1997, the staff consulted with the Pennsylvania State official, Mr. S. Maingi of the Department of Environmental Protection, Bureau of Radiation Protection, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

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

For further details with respect to the proposed action, see the licensee's letter dated August 16, 1996, as supplemented by letters dated August 28, 1996, and January 3, 1997, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located

at the Law/Government Publications Section, State Library of Pennsylvania,
Walnut Street and Commonwealth Avenues, Harrisburg, PA.

Dated at Rockville, Maryland, this 3rd day of July 1997.

FOR THE NUCLEAR REGULATORY COMMISSION



Patrick D. Milano, Acting Director
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation