

April 26, 1988

Docket No. 50-320

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Mr. F. R. Standerfer
Vice President/Director
Three Mile Island Unit 2
GPU Nuclear Corporation
Post Office Box 480
Middletown, Pennsylvania 17057

Dear Mr. Standerfer:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
EXEMPTION FROM REQUIREMENTS OF 10 CFR PART 70.24, "CRITICALITY
ACCIDENT REQUIREMENTS"

Enclosed is the Environmental Assessment which relates to your request dated
February 19, 1988, for exemption from certain requirements of 10 CFR 70.24,
for Three Mile Island Nuclear Station, Unit 2.

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

Sincerely,

original signed by

Michael T. Masnik, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment

cc w/enclosure:
See next page

LA:PDI-4
SNorris
04/22/88

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PM:PDI-4
MTMasnik
04/22/88

[Signature]
D:PDI-4
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OGC
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04/21/88

*No legal objection subject
to changes as noted.*

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Philadelphia, PA 19106

UNITED STATES NUCLEAR REGULATORY COMMISSIONGPU NUCLEAR CORPORATIONDOCKET NO. 50-320ENVIRONMENTAL ASSESSMENT AND FINDINGOF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of 10 CFR 70.24, Criticality accident requirements relative to Facility Operating License No. DPR-73, issued to GPU Nuclear Corporation (the licensee), for the Three Mile Island Nuclear Station Unit 2 (TMI-2), located in Londonderry Township, Dauphin County, Pennsylvania. By Order for Modification of License, dated July 20, 1979, the licensee's authority to operate the facility was suspended and the licensee's authority was limited to maintenance of the facility in the present shutdown cooling mode (44 FR 45271). By further Order of the Director, Office of Nuclear Reactor Regulation, dated February 11, 1980, a new set of formal license requirements was imposed to reflect the post-accident condition of the facility and to assure the continued maintenance of the current safe, stable, long-term cooling condition of the facility (45 FR 11292). The license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The action being considered by the Commission is exemption from 70.24 Criticality accident requirements relating to requirements for a monitoring system capable of detecting a criticality. Specifically, 10 CFR 70.24 requires licensees authorized to possess special nuclear material above a minimum quantity to maintain a redundant monitoring system that is capable of detecting a criticality in each area in which such licensed special nuclear material is handled, used or stored. The redundant monitoring systems, using gamma- or neutron sensitive radiation detectors, are required to energize clearly audible alarm signals if accidental criticality occurs. The regulations applicable to TMI-2 further define the sensitivity of the monitoring system and require the licensee to have emergency procedures for the protection of personnel.

The Need for the Proposed Action:

TMI-2 is currently in a post-accident, cold shutdown, long-term recovery mode. Exemption from 10 CFR 70.24 is requested after the conclusion of the licensee's current defueling program which will remove greater than 95% of the original core material and preclude the possibility of an inadvertent criticality. Once defueling is completed the reactor building will be entered infrequently by personnel readying the building for long-term storage and for periodic monitoring. Remaining fuel in areas accessible to personnel will be contained in the primary system, with the majority of the material in the reactor vessel. Personnel entering the building will be required to possess radiation survey instruments. Although the amount of special nuclear material will exceed limits of 10 CFR 70.24, the material will be distributed in a number of locations in a configuration that would preclude a criticality.

Furthermore, the building will be unoccupied and personnel entries will occur on an infrequent basis. Personnel that do enter will possess appropriate monitoring equipment that would detect a criticality. Principal quantities of fuel are located in areas that are inaccessible to personnel and well shielded. Maintenance of the current intermediate and source range neutron flux monitors would prove an unnecessary burden and expense on the licensee with no concomitant benefit in terms of achieving the purpose of the requirement.

Environmental Impact of the Proposed Action:

The staff has evaluated the proposed exemption and concludes that in light of the current and future condition of the facility described above, there are no significant radiological or nonradiological impacts to the environment as a result of this action. The proposed exemption removes the specific feature of the Commission's requirement to maintain criticality monitors in areas where special nuclear material above certain amounts is handled, used or stored.

Alternatives to the Proposed Action:

Since the Commission has concluded that there is no significant environmental impact associated with the proposed exemption, any alternatives to this action will have either no significant environmental impact or greater environmental impact.

Agencies and Persons Consulted:

The Commission's staff reviewed the licensee's request and did not consult other agencies or persons.

Alternative Use of Resources:

This action does not involve the use of resources not previously considered in connection with the Final Programmatic Environmental Impact Statement for TMI-2, dated March 1981.

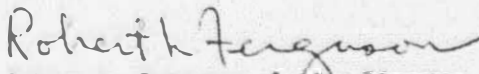
FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed exemption. Based upon the foregoing environmental assessment, we conclude that this action will not have a significant effect on the quality of the human environment.

For further details with respect to this action see the letter from GFUN, Technical Specification Change Request No. 53, dated April 23, 1987 and revised October 26, November 9 and December 4, 1987. These documents are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and the State Library of Pennsylvania, Government Publications Section, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania 17126.

Dated at Rockville, Maryland, this 26 day of April 1988.

FOR THE NUCLEAR REGULATORY COMMISSION


Robert L. Ferguson, Acting Director
Project Directorate I-4
Division of Reactor Projects I/II