

June 9, 1993

Docket No. 50-289

Distribution:

Mr. T. Gary Broughton, Vice President
and Director - TMI-1
GPU Nuclear Corporation
Post Office Box 480
Middletown, Pennsylvania 17057
OGC
Dear Mr. Broughton:

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SNorris OC/LFDCB
RHernan JRogge, RI

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M84841)

The Commission has issued the enclosed Amendment No. 174 to Facility Operating License No. DPR-50 for the Three Mile Island Nuclear Station, Unit No. 1, (TMI-1) in response to your letter dated October 28, 1992, as supplemented by letter dated May 12, 1993.

The amendment deletes the requirement to place the plant in COLD SHUTDOWN condition when one Emergency Core Cooling System (ECCS) is inoperable for more than 72 hours. Instead, the plant would be placed in HOT SHUTDOWN when this condition exists.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Ronald W. Hernan, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 174 to DPR-50
- 2. Safety Evaluation

cc w/enclosures:
See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 9, 1993

Docket No. 50-289

Mr. T. Gary Broughton, Vice President
and Director - TMI-1
GPU Nuclear Corporation
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Sincerely,

A handwritten signature in cursive script that reads "Ronald W. Hernan".

Ronald W. Hernan, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 174 to DPR-50
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. T. Gary Broughton
GPU Nuclear Corporation

Three Mile Island Nuclear Station,
Unit No. 1

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER & LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

GPU NUCLEAR CORPORATION

DOCKET NO. 50-289

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 174
License No. DPR-50

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation, et al. (the licensee) dated October 28, 1992, as supplemented May 12, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.c.(2) of Facility Operating License No. DPR-50 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 174, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 9, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 174

FACILITY OPERATING LICENSE NO. DPR-50

DOCKET NO. 50-289

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by an amendment number and contains vertical lines indicating the area of change.

Remove

3-22

Insert

3-22

- e. Core flood tank (CFT) vent valves CF-V3A and CF-V3B shall be closed and the breakers to the CFT vent valve motor operators shall be tagged open, except when adjusting core flood tank level and/or pressure. Specification 3.0.1 applies.

3.3.1.3 Reactor Building Spray System and Reactor Building Emergency Cooling System

The following components must be OPERABLE:

- a. Two reactor building spray pumps and their associated spray nozzles headers and two reactor building emergency cooling fans and associated cooling units (one in each train). Specification 3.0.1 applies.
- b. The sodium hydroxide (NaOH) tank shall be maintained at 8 ft. 6 inches lower than the BWST level as measured by the BWST/NaOH tank differential pressure indicator. The NaOH tank concentration shall be $10.0 \pm .5$ weight percent (%).
- c. All manual valves in the discharge lines of the sodium hydroxide tank shall be locked open.

3.3.1.4 Cooling Water Systems - Specification 3.0.1 applies.

- a. Two nuclear service closed cycle cooling water pumps must be OPERABLE.
- b. Two nuclear service river water pumps must be OPERABLE.
- c. Two decay heat closed cycle cooling water pumps must be OPERABLE.
- d. Two decay heat river water pumps must be OPERABLE.
- e. Two reactor building emergency cooling river water pumps must be OPERABLE.

3.3.1.5 Engineered Safeguards Valves and Interlocks Associated with the Systems in Specifications 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.4 are OPERABLE. Specification 3.0.1 applies.

3.3.2 Maintenance shall be allowed during reactor operation on any component(s) in the makeup and purification, decay heat, RB emergency cooling water, RB spray, CFT pressure instrumentation, CFT level instrumentation, BWST level instrumentation, or cooling water systems which will not remove more than one train of each system from service. Components shall not be removed from service so that the affected system train is inoperable for more than 72 consecutive hours. If the system is not restored to meet the requirements of Specification 3.3.1 within 72 hours, the reactor shall be placed in a HOT SHUTDOWN condition within six hours.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GPU NUCLEAR CORPORATION

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

1.0 INTRODUCTION

By letter dated October 28, 1992, the GPU Nuclear Corporation (GPUN or the licensee) submitted a request for changes to the Three Mile Island Nuclear Station, Unit No. 1 (TMI-1) Technical Specifications (TS). The requested change would revise TS Section 3.3.2 to delete an unnecessary requirement to place the unit in a COLD SHUTDOWN condition in the event that an Emergency Core Cooling System (ECCS) train cannot be restored to operability status within 72 hours during maintenance. The change would, instead, place the plant in HOT SHUTDOWN within 6 hours when this condition exists.

2.0 EVALUATION

Section 3.0.1 of the TMI-1 TS requires a plant shutdown, and possibly a plant cooldown, whenever a Limiting Condition for Operation (LCO) cannot be met unless otherwise specified in the individual TS section that applies to the system or component in question. Specifically, TS 3.0.1 requires placing the plant in the condition in which the specification does not apply. Section 3.3.1 of the TS specifies conditions that must be met with regard to the ECCS, and the Reactor Building Cooling and Spray Systems in order to make the reactor critical. Section 3.3.2 of the TS allows maintenance on various portions of these systems but requires plant shutdown and cooldown to COLD SHUTDOWN conditions (i.e., reactor subcritical and reactor coolant temperature less than 200°F) if the system or component cannot be restored to operation within 72 hours. TS 3.0.1 would only require taking the plant to HOT SHUTDOWN (i.e., reactor subcritical and reactor coolant temperature greater or equal to 525°F), the first mode in which the reactor is subcritical, in this situation. Therefore, there is an inconsistency between TS 3.0.1 and TS 3.3.2 that the licensee's submittal proposes to correct.

The revised Standard TS for Babcock & Wilcox plants (NUREG-1430) only requires a plant to be taken down to HOT SHUTDOWN conditions in the event of inoperable ECCS. The Decay Heat Removal System (DHRS) is part of the ECCS at TMI-1 and is also the primary means of cooling when the reactor coolant system

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temperature is less than 200°F. Requiring near-term entry into a plant condition where a single train (or even both trains) of redundant decay heat removal is inoperable (i.e., the DHRS) would not be the best option from a safety standpoint.

The licensee's proposed amendment in the October 28, 1992, submittal would have required entry into TS 3.0.1 after 72 hours which would have required the plant to be placed in HOT STANDBY within 6 hours and HOT SHUTDOWN within 12 hours. Since the reactor is presumed to be critical in the HOT STANDBY condition (by definition), this TS would have allowed 6 more hours of critical operation than the Standard TS. At the staff's request, the licensee submitted a supplement to the original request (letter dated May 12, 1993) to make the TMI-1 TS consistent with the Standard TS in this respect. The letter provided information that did not change the initial proposed no significant hazards consideration determination.

The staff has evaluated the licensee's proposed TS changes and considers them acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 58246). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Hernan

Date: June 9, 1993