METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER & LIGHT COMPANY

AND

PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 179

This Technical Specification Change Request is submitted in support of Licensee's request to change Appendix A to Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit 1. As a part of this request, proposed replacement pages for Appendix A are also included.

GPU NUCLEAR CORPORATION

BY: H D Hukill
Vice President & Director, TMI-1

N [illegible]
Linda L. [illegible] y Public
Middletown Boro, Dauphin County
My Commission Expires Feb. 26, 1994
Member, Pennsylvania Association of Notaries

Sworn and subscribed
to before me this 18th
day of June, 1990.

Linda L. Butler
Notary Public

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF
GPU NUCLEAR CORPORATION

DOCKET NO. 50-289
LICENSE NO. DPR-50

CERTIFICATE OF SERVICE

This is to certify that a copy of Technical Specification Change Request No. 179 to Appendix A of the Operating License for Three Mile Island Nuclear Station Unit 1, has, on the date given below, been filed with executives of Londonderry Township, Dauphin County, Pennsylvania; Dauphin County, Pennsylvania; and the Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection, by deposit in the United States mail, addressed as follows:

Mr. Kenneth E. Witmer, Chairman
Board of Supervisors of
Londonderry Township
25 Roslyn Road
Elizabethtown, PA 17022

Ms. Sally S. Klein, Chairman
Board of County Commissioners
of Dauphin County
Dauphin County Courthouse
Harrisburg, PA 17120

Mr. Thomas Gerusky, Director
PA. Dept. of Environmental Resources
Bureau of Radiation Protection
P.O. Box 2063
Harrisburg, PA 17120

GPU NUCLEAR CORPORATION

BY: _____
Vice President & Director, TMI-1

DATE: June 18, 1990

I. Technical Specification Change Request (TSCR) No. 179

GPUN requests that the attached pages (iii, viii, 4-37, and 4-38) replace existing pages iii, viii, 4-37 and 4-38a in the TMI-1 Technical Specifications.

II. Description of Technical Specification Changes

A.

(1) Page iii, "Table of Contents" - Technical Specification 4.4.4, "Hydrogen Recombiner System" was added which had been previously omitted.

(2) Page viii, "List of Figures" - Figure 3.5-2m, "LOCA Limited Maximum Allowable Linear Heat Rate," was added. This figure was added to the TMI-1 Technical Specifications via License Amendment 152.

B. Page 4-37 - The notation at the bottom of the page concerning the deletion of page 4-38 was removed.

C. Page 4-38, Specification 4.4.4.1, "Hydrogen Recombiner System":

(1) Specification 4.4.4.1.a - The current quarterly surveillance requirement for the hydrogen recombiner system functional test has been revised to a semiannual surveillance frequency.

(2) Specification 4.4.4.1.b - The frequency of this surveillance has been revised from every 18 months to once per refueling interval.

(3) Technical Specification Bases 4.4.4.1 - The Bases have been revised to clarify the safety significance of the hydrogen recombiner system.

(4) Notation was added at the bottom of the page to delete page 4-38a.

III. Reason for Change

Changes A, B, C.4

These changes are for purposes of repagination and to reflect current Technical Specification figures.

Changes C.1, and C.2

Current TMI-1 Technical Specification (Tech. Spec.) 4.4.4.1.a, "Hydrogen Recombiner System" requires that a functional test of the hydrogen recombiner system be performed once per 92 days to

III. Reason for Change (Cont'd.)

demonstrate that the minimum reaction chamber gas temperature is maintained at ≥ 600°F for at least two (2) hours. Current TMI-1 Tech. Spec. 4.4.4.1.b.3 requires that a recombiner system functional test be performed once per 18 months to verify that the reaction chamber gas temperature is maintained ≥ 1200°F for at least four (4) hours. Additionally, TMI-1 Tech. Spec. 4.4.4.1.b. requires performance of the following surveillances at least once per 18 months:

1) a channel calibration of all recombiner instrumentation and control circuits be performed;
2) a visual examination for evidence of abnormal conditions; and
3) a continuity and resistance to ground test of the heater electrical circuits.

GPU Nuclear is proposing that the quarterly functional test be revised to semiannual frequency and that the current 18 month surveillance be revised to once per refueling interval. This revised surveillance frequency is consistent with the safety significance of the system and with B&W Standard Technical Specifications (NUREG 0103, Revision 4).

Operation of a hydrogen recombiner at TMI-1 would not be required until approximately 9.8 days following a LOCA (Reference TMI FSAR Section 6.5.3.1). Because operation is not needed immediately, Regulatory Guide 1.7 recommends that one recombiner per site be available for installation, with a redundant recombiner either onsite or offsite. TMI has two (2) installed, 100% capacity hydrogen recombiners.

Change C.3

This change is administrative in nature to revise the Tech. Spec. Bases for the hydrogen recombiner system to be consistent with the above proposed changes.

IV. Safety Evaluation Justifying Change

Changes A, B, C.4

These changes are administrative in nature; thus, no further safety evaluation is necessary.

Changes C.1 and C.2

Pursuant to Regulatory Guide 1.7, the hydrogen recombiner system removes the hydrogen and oxygen gases that accumulate in the containment atmosphere following a Loss-of-Coolant Accident (LOCA).

IV. Safety Evaluation Justifying Change (Cont'd.)

TMI-1 FSAR Section 6.5.3.1 states that based on the hydrogen generation rate, the hydrogen recombiner will start processing the containment gases when the hydrogen concentration reaches 3 percent of the total containment volume in order to limit the concentration to the lower flammability limit at 4 percent by volume. The 3 percent by volume hydrogen concentration is calculated to occur approximately 9.8 days after a LOCA.

As previously noted, TMI-1 has two (2) installed, 100% capacity hydrogen recombiners. Therefore, based on the safety significance of these hydrogen recombiners the proposed revision will not decrease the effectiveness of the hydrogen recombiner system.

Change C.3

This change is administrative in nature to revise the Bases for Tech. Spec. 4.4.4 to reflect the changes proposed in this submittal. Thus, no further safety evaluation is necessary.

V. No Significant Hazards Considerations

GPU Nuclear has determined that this TSCR poses no significant hazards as defined by the NRC in 10 CFR 50.92.

A. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated. The proposed change request revises the current surveillance frequency of the hydrogen recombiners to be consistent with the safety significance of the system and the surveillance frequency in the B&W Standard Technical Specifications. The operability of the equipment is not affected because TMI-1 has two (2) installed 100% capacity hydrogen recombiners and a hydrogen recombiner is not required to operate until approximately 9.8 days following a LOCA. The results of this change will not result in any increase in the probability or consequences of events analyzed in Chapter 14 of the TMI-1 FSAR.

B. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The TMI-1 FSAR states that operability of hydrogen recombiner is not required until approximately 9.8 days following a LOCA. The proposed revision to the hydrogen recombiner surveillances does not affect the possibility of a new or different kind of accident from any accident previously evaluated.

V. No Significant Hazards Considerations (Cont'd.)

C. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Reasonable assurance of operability of the equipment still is provided at frequencies consistent with B&W Standard Technical Specifications.

This change request is typical of amendment example (vi) specified in 48 FR 14870.

VI. Implementation

It is requested that the amendment authorizing this change become effective immediately upon issuance and shall be implemented within 30 days.