METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND 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. 232

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF DAUPHIN)

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 part of this request, proposed replacement pages for Appendix A are also included.

GPU NUCLEAR CORPORATION

BY: F F Broughton
Vice President and Director, TMI-1

Sworn and subscribed before me this
26th day of August, 1993.

Erin M. Flowers
Notary Public

Notarial Seal
Erin M. Flowers, Notary Public
Londonderry Twp., Dauphin County
My Commission Expires Sept. 11, 1993
Member, Pennsylvania Association of Notaries

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF DOCKET NO. 50-289
GPU NUCLEAR CORPORATION LICENSE NO. DPR-50

CERTIFICATE OF SERVICE

This is to certify that a copy of Technical Specification Change Request No. 232 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. Daryl LeHew, Chairman
Board Supervisors of
Londonderry Township
R. D. #1, Geyers Church Road
Middletown, PA 17057

Mr. Russel L. Sheaffer, Chairman
Board of County Commissioners
of Dauphin County
Dauphin County Courthouse
Harrisburg, PA 17120

Director, Bureau of Radiation Protection
Attn: Mr. Richard Janati
Pa Dept. of Environmental Resources
P. O. Box 2063
Harrisburg, PA 17120

GPU NUCLEAR CORPORATION

BY: J H Broughton
Vice President and Director, TMI-1

DATE: August 26, 1993

ENCLOSURE

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NO. 232

GPUN requests that the following changed replacement pages be inserted into the existing Technical Specifications:

Revised pages: 5-4, and 5-5

These pages are attached to this change request.

II. REASON FOR CHANGE

This change is requested to modify the TMI-1 Technical Specifications to accommodate limited fuel reconstitution based on NRC-approved generic Babcock & Wilcox (B&W) Topical Report BAW-2149, "Evaluation of Replacement Rods in BWFC Fuel Assemblies", December, 1991. NRC approval of BAW-2149 was provided in a Safety Evaluation Report, dated April 12, 1993. This change provides flexibility for improved fuel performance by permitting timely removal of fuel rods found to be leaking during a refueling outage or determined to be possible sources of future leakage. The proposed change also adds a provision for the use of a limited number of lead test assemblies in non-limiting core regions. This proposed Technical Specification revision is consistent with the guidance contained in NRC Generic Letter 90-02, Supplement 1, dated July 31, 1992, and incorporates a line-item improvement in Technical Specifications.

III. SAFETY EVALUATION JUSTIFYING CHANGE

TMI-1 Technical Specification Section 5.3.1.1 includes a design description for fuel assemblies which specifies that a fuel assembly contains 208 fuel rods arranged in a 15x15 lattice. The proposed change to the Technical Specification permits the substitution of zirconium alloy or stainless steel filler rods for fuel rods in fuel assemblies in accordance with NRC-approved applications of fuel rod configurations. Fuel assemblies are limited to those fuel designs that have been analyzed with applicable NRC-approved codes and methods, and shown by tests or analyses to comply with all fuel safety design bases. Flexibility to deviate from the number of fuel rods per assembly is desirable to permit timely removal of fuel rods found to be leaking during a refueling outage or determined to be possible sources of future leakage. This improvement in the fuel performance program will provide for reductions in future occupational radiation exposure and plant radiological releases.

NRC-approved Topical Report BAW-2149 demonstrates that approved BWFC analysis methods, when applied to reconstituted fuel assemblies will assure that NRC specified acceptable fuel design limits are met. Approval of BAW-2149 provides the basis that BWFC fuel assemblies reconstituted consistent with the restrictions of the report do not represent an unreviewed safety question and, therefore, that such reconstitution may be done under the provisions of 10 CFR 50.59 without prior approval of the NRC. The proposed Technical Specification revision ensures that fuel rod configuration and fuel assembly design for a specific operating cycle, have been analyzed with applicable NRC-approved methodologies and that the safety limits and General Design Criteria of 10 CFR 50 Appendix A are maintained.

Reconstitution of a limited number of fuel rods in fuel assemblies to be reinserted in the core has become a common industry practice. Latest generation fuel assemblies used at TMI-1 are specifically designed to allow reconstitution.

With respect to the description of fuel rod cladding, Technical Specification Section 5.3.1.1 is revised to identify zirconium alloy fuel rods as described in NUREG-1430, Standard Technical Specifications for Babcock & Wilcox Type Plants, Revision 0, dated September 28, 1992. TMI-1 was granted an exemption dated November 14, 1991, pursuant to 10 CFR 50.12, from the requirements of 10 CFR 50.46(a)(1)(i), 10 CFR 50.44(a), and Appendix K to 10 CFR 50 regarding the use of Zirlo (alloy of zirconium) clad fuel instead of Zircaloy clad fuel as specified in the rules. Any additional future use of zirconium alloy fuel rod cladding beyond the scope of the existing exemption will require formal exemption requests, based on the then current wording of the applicable regulations. This clarification only reflects the previously granted exemption and is consistent with the new Standard Technical Specifications. Therefore, this change is considered to be administrative.

The existing TMI-1 Technical Specification Section 5.3.1.1 description that "the reactor core is composed of slightly enriched uranium dioxide pellets in fuel rods," is deleted since it is redundant to the generic letter model Technical Specification wording. Therefore, this change is considered to be administrative.

IV. NO SIGNIFICANT HAZARDS CONSIDERATION

GPUN has determined that this Technical Specification Change Request involves no significant hazards consideration as defined by NRC in 10 CFR 50.92.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of occurrence or the consequences of an accident previously evaluated. The proposed amendment only permits the limited substitution of filler rods for fuel rods in fuel assemblies in accordance with the NRC-approved Babcock & Wilcox Fuel Company (BWFC) fuel assembly reconstitution methodology described in BAW-2149. Allowing this substitution for fuel rods that are found to be leaking during a refueling or are possible sources of future leakage will result in reductions in future occupational radiation exposure and plant radiological releases. Therefore, this change does not increase the probability of occurrence or the consequences of an accident previously evaluated.

2. 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. Substitution of filler rods is permitted in accordance with NRC-approved BWFC fuel assembly reconstitution methodology described in BAW-2149.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Substitution of filler rods is permitted in accordance with NRC-approved BWFC fuel assembly reconstitution methodology described in BAW-2149. This methodology preserves existing fuel design and safety limits. Therefore, it is concluded that operation of the facility in accordance with the proposed amendment does not involve a significant reduction in a margin of safety.

V. IMPLEMENTATION

It is requested that the amendment authorizing this change become effective upon issuance.