December 14, 1983

Docket No. 50-320

Mr. B. K. Kanga, Director
Three Mile Island Unit 2
GPU Nuclear Corporation
P.O. Box 480
Middletown, PA 17057

Dear Mr. Kanga:

Subject: Three Mile Island Nuclear Station, Unit 2
Operating License No. DPR-73
Docket No. 50-320
License Amendment No. 22

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 22 to Facility Operating License No. DPR-73. This amendment is in response to your request dated May 27, 1983 (4410-83-L-0084).

This amendment consists of the deletion of Section 2.E(3) of your facility operating license which required suitable tankage, that could be used to store waste water from TMI-2, be at an appropriate state of readiness should this storage become necessary.

We have determined that the amendment involves an action that is insignificant from the standpoint of environmental impact and that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

Having made this determination, we have further concluded that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.
Copies of the Notice of Issuance have been forwarded to the Office of the Federal Register for publication in the Commission's next Monthly FEDERAL REGISTER notice.

Sincerely,

/s/ Richard A. Weller
for
Bernard J. Snyder, Program Director
Three Mile Island Program Office
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 22 to DPR-73
2. Safety Evaluation

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Mr. John Hinter  
Executive Vice President  
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120 Interstate Parkway  
Harrisburg, PA 17112
1. The Nuclear Regulatory Commission (the Commission) has found that:
   
   A. The application for amendment by GPU Nuclear Corporation (the licensee), dated May 27, 1983, 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 1;
   
   B. The facility will be operated in conformity with the License, the Order for Modification of License dated July 20, 1979, the application for amendment, 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 will 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 changing paragraph 2.C (2) and deleting paragraph 2.E (3) to Facility Operating License No. DPR-73. Paragraph 2.C (2) now reads as follows:

   2.C (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 22 are hereby incorporated in the license. The licensee shall operate the facility in accordance
with the Technical Specifications and all Commission Orders, issued subsequent to March 28, 1979.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Bernard J. Snyder, Program Director
TMI Program Office
Office of Nuclear Reactor Regulation

Date of Issuance: December 14, 1983
Safety Evaluation by the Office of Nuclear Reactor Regulation

General Public Utilities Nuclear Corporation

Docket No. 50-320

Three Mile Island Nuclear Station, Unit 2

Introduction
By letter dated May 27, 1983, the General Public Utilities Nuclear Corporation (GPUNC) requested changes to the Technical Specifications of Operating License No. DPR-73 for the Three Mile Island Nuclear Station, Unit No. 2 (TMI-2). The requested change to Appendix B of the operating license would delete the requirement to maintain reserve waste water tankage at TMI-2.

Discussion and Evaluation
On October 22, 1979, the Commission issued an Order for Modification of License dated October 18, 1979. The NRC order required in part that the processing of intermediate-level waste water should begin promptly by operating EPICOR-II. It also required that "The licensee shall maintain suitable tankage at TMI-1 that could be used to store waste water from TMI-2 at an appropriate state of readiness should additional storage become necessary."

The reserve storage capacity was required by the staff because of the large volume of contaminated water being held in miscellaneous sumps in the auxiliary and fuel handling building and the containment building.
Metropolitan Edison Company (Met-Ed) requested on October 31, 1980, that the Order for Modification of License be amended to only require reserve tankage in Unit 2 instead of TMI-1 to be in compliance with the Commission's Order of August 9, 1979 for TMI-1. That Unit 1 order required the separation of units for all waste handling systems. On January 29, 1981, the staff approved the October 31, 1980 request; therefore section 2.E (3) was incorporated in the TMI-2 license, specifying required reserve water tankage in Unit 2. Since that approval, the contaminated water in the auxiliary and fuel handling building has been decontaminated, in addition to the 600,000 gallons of containment building water. Also, additional storage capacity has been built on the TMI-2 site (2 processed water storage tanks with 500,000 gallons capacity each), for storage of the processed water. Presently the containment building maintains less than 100,000 gallons of contaminated water most of which is a result of decontamination efforts.

The approximate initial concentrations of the major isotopes in the 600,000 gallons of sump water were 135 μCi/ml Cs-137, 15 μCi/ml Cs-134, 5 μCi/ml Sr-90, and 0.8 μCi/ml tritium. Due to repeated dilution of this water and processing by the Submerged Demineralization System and EPICOR-II, the isotope concentrations in the present volume of water are approximately 5.0 μCi/ml Cs-137, 0.3 μCi/ml Cs-134, and 3.0 μCi/ml Sr-90. Tritium concentrations are presently 0.2 μCi/ml due to dilution. This reflects a significant lowering of the contamination levels.
Based on the higher initial concentrations, the NRC's Final Programmatic Environmental Impact Statement (PEIS), issued in March of 1981, evaluated a leak from the Reactor Building to the environment and concluded that the peak radionuclide concentrations for major isotopes would be less than the maximum permissible concentrations in 10 CFR Part 20. Since the present concentrations are significantly lower than those discussed in the PEIS, the staff concludes that there would be minimal effect to the health and safety of the public if a leak should occur. The staff also concludes that the chance of an undetected leak occurring is remote because: (1) the Reactor Building water level is monitored daily in accordance with NRC approved procedures, and (2) the Groundwater Monitoring Program, which is reviewed by the NRC, provides for localized checks in different areas of the TMI-2 site and trends any changes to isotope levels in the groundwater thereby giving an early warning of leaks should they occur.

**Environmental Considerations**

We have determined that the change does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the change involves an action which is insignificant from the standpoint of environmental impact and, pursuant to
10 CFR 51.5 (d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this change.

Conclusion
Based upon our review of the above discussed change, the staff finds that the requested revision of the proposed Technical Specifications is acceptable.

We have also 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, and
(2) such activities will be conducted in compliance with the Commission's regulations and the implementation of this change will not be inimical to the common defense and security or to the health and safety of the public.