Enclosure 1

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION	)	Docket No. 50-320
	)	
	)	
(Three Mile Island Nuclear Station Unit 2)	)	
	)	

EXEMPTION

I.

GPU Nuclear Corporation, Metropolitan Edison Company, Jersey Central Power and Light Company and Pennsylvania Electric Company (collectively, the licensee) are the holders of Facility Operating License No. DPR-73, which has authorized operation of the Three Mile Island Nuclear Station, Unit 2 (TMI-2) at power levels up to 2772 megawatts thermal. The facility, which is located in Londonderry Township, Dauphin County, Pennsylvania, is a pressurized water reactor previously used for the commercial generation of electricity.

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 Fed. Reg. 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 Fed. Reg. 11292). This license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

II.

On October 26, 1983, General Public Utilities Nuclear Corporation (GPUNC) submitted a letter to the State of Washington requesting a variance to 10 CFR 61.55 regarding the classification of TMI-2 EPICOR II solid waste liners. This letter proposed that the EPICOR II liners be categorized as Class A waste and, therefore, be buried in an unsolidified and dewatered condition. Accordingly, GPUN proposed to increase the upper Class A limit for Sr-90 from 0.04 uCi/cc to 1.0 uCi/cc for the EPICOR II liners. On July 17, 1985, GPUN received a letter from the State of Washington granting the variance provided that the following restrictive conditions are met: (1) Sr-90 concentrations are not to exceed 1 uCi/cc; (2) Wastes will comply with Class A waste requirements specified in 10 CFR 61.56; (3) Wastes are disposed of at the bottom of the trench and segregated from stable Class B and C wastes; and (4) Wastes do not contain other radionuclides listed in Tables 1 and 2 of 10 CFR 61.55 which exceed the Class A limits by themselves or giving consideration to the partial fractions rule. In order to implement this variance from 10 CFR 61.55, GPUN submitted a letter to the NRC, on June 25, 1985, requesting exemption from certain requirements of 10 CFR 20.311(b) and 20.311(d)(1), (2) and (3) for classifying the TMI-2 EPICOR II liners. However, we have determined that an exemption from the requirements of 10 CFR 20.311 is not necessary but that an exemption from the waste classification requirements of 10 CFR 61.55 is appropriate.

III.

10 CFR 20.311(b) in part states: "Wastes classified as Class A, Class B, or Class C in Section 61.55 of this chapter must be clearly identified as such in the manifest." 10 CFR 20.311(d)(1) states: "Prepare all wastes so that the waste is classified according to Section 61.55 and meets the waste characteristics requirements in Section 61.56 of this chapter." 10 CFR 20.311(d)(2) states: "Label each package of waste to identify whether it is Class A waste, Class B waste, or Class C waste in accordance with Section 61.55 of this chapter." 10 CFR 20.311(d)(3) states: "Conduct a quality control program to assure compliance with Sections 61.55 and 61.56 of this chapter; the program must include management evaluation of audits."

The above regulations require the licensee to comply with the waste classification requirements of 10 CFR 61.55. Under 10 CFR 61.55, the TMI-2 liners (approximately 100 liners total, each with 170 ft.^{3} of spent resin) would be classified as Class B waste. If the licensee proposes to reprocess the EPICOR liner waste to meet Class A classification under 10 CFR 61.55, there would be an increase in waste volume to be disposed of by about 600%. Compliance with the Class B conditions of 10 CFR 61.55 would require stabilization of the waste form. This would also result in substantial increases in the volume of EPICOR liner wastes to be disposed and the occupational exposure due to required increased handling of waste. We estimate that the stabilization requirements for Class B wastes would result in a volume increase of 20% to 50% for the EPICOR liners to be disposed. Additionally, we estimate that occupational exposure resulting

from either the stabilization requirement of Class B form or reprocessing to meet the Class A classification condition would increase by at least a factor of two over the exposure which would result from the handling of the EPICOR liners as Class A waste. Accordingly, an exemption from the waste classification requirements of 10 CFR 61.55, which would otherwise require the EPICOR wastes to be classified as Class B and stabilized, is appropriate as required stabilization would result in an adverse impact and GPUN has proposed alternatives for the handling and disposal of the EPICOR wastes.

In lieu of the waste classification requirements of 10 CFR 61.55, GPUN proposed to classify the TMI-2 EPICOR II liners in accordance with a letter submitted by GPUNC to the State of Washington on October 26, 1983, requesting a variance to the requirements of 10 CFR 61.55 to allow a 1 uCi/cc limit on Sr-90 as the upper Class A limit for TMI-2 EPICOR II liners. In response to a September 11, 1981 request, the NRC staff performed an evaluation (Letter from B. Snyder, NRC, to J. Barton, Metropolitan Edison Company, dated October 22, 1981) to determine the Sr-90 concentration limit that would be acceptable for burial of an unstabilized EPICOR II liner. The staff's evaluation concluded that dewatered resin wastes with a concentration limit of 24 uCi/cc of Sr-90 would be acceptable for burial at an arid disposal site such as the Hanford site in the State of Washington provided certain restrictions on disposal were met. The acceptability of the disposal was based on pathway analyses that demonstrated that the

performance objectives in proposed 10 CFR Part 61 would be met. Disposal as provided in the State variance would meet the performance objectives in final Part 61 and all other aspects of the staff's earlier October 22, 1981 evaluation were reviewed and determined to remain valid for this current exemption request. The staff, therefore, concludes that the licensee's proposal for an upper Class A limit of 1.0 uCi/cc for Sr-90 is acceptable in this instant action and an exemption to the waste classification requirements of 10 CFR 61.55 is appropriate. Alternatively, without the exemption, the licensee would not be able to implement the State variance from 10 CFR 61.55 resulting in a substantial increase of waste volume to be handled and transported for disposal. Such an increase would be detrimental to the public health and safety and would both increase unnecessary exposure to radiation and consumption of burial site capacity without providing any benefit to public health and safety at the burial site.

IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 61.6, an exemption is authorized by law and will not result in undue hazard to life or property. The Commission hereby grants an exemption from the requirements of 10 CFR 61.55 as discussed in Section III. The exemption is to the Sr-90 concentration limit of 0.04 curies per cubic meter (microcuries per cubic centimeter) in Column 1 of Table 2 in 10 CFR 61.55 for the specific EPICOR II wastes. The wastes must be labeled and identified as Class A. Further, in order to assure that the site operator can identify

the special case EPICOR II Class A wastes and meet the prescribed disposal requirements, the licensee is hereby directed to add the following language or equivalent to the manifest required by 10 CFR 20.311: "Class A EPICOR II waste packages must be disposed of as prescribed in the attached variance." (The requirement to attach a copy of the variance to the shipping papers is included in the State approval.)

It is further determined that the exemption 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. In light of this and as reflected in the Environmental Assessment and Notice of Finding of No Significant Environmental Impact prepared pursuant to 10 CFR 51.21 and 51.30 through 51.32, issued on October 3, 1985, it was concluded that the instant action will not have a significant impact on the environment and thus, an environmental impact statement need not be prepared.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Effective Date: October 24, 1985
Dated at Bethesda, Maryland
Issuance Date: October 24, 1985