

**GPU Nuclear Corporation** 

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October 13, 1982 4410-82-L-0022

TMI Program Office
Attn: Mr. L. H. Barrett, Deputy Program Director
US Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, PA 17057-0191

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Submerged Demineralizer System Liner Recombiner
and Vacuum Outgassing System

Attached is a copy of the safety evaluation for the Submerged Demineralizer System (SDS) Liner Recombiner and Vacuum Outgassing System (LRVOS). The purpose of the LRVOS is to eliminate the potential of a combustible hydrogen and oxygen mixture existing in the SDS liners. This will facilitate the ultimate shipment and burial of these liners.

As discussed in the attached safety evaluation, this system was satisfactorily tested by Rockwell Hanford Operations using an SDS liner loaded with zeolite and simulating the gas generation condition found in a radioactivity loaded SDS liner. These tests provide reasonable assurance that the LRVOS will satisfactorily perform its intended function on radioactivity loaded SDS liners.

The attached safety evaluation also demonstrates that the addition of the LRVOS to the SDS does not violate the original design conditions of the SDS including the radiological safety evaluations performed in the SDS Technical Evaluation Report. Additionally, this evaluation demonstrates that the addition and use of this system does not constitute an Unreviewed Safety Question. Based on this safety evaluation, an additional test will be performed on an SDS liner that was used for Reactor Building sump water processing. Following this test an additional safety evaluation will be finalized which will demonstrate that shipment of SDS liners can be safely performed.

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Mr. L. H. Barrett

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If you have any questions regarding this evaluation, please feel free to contact Mr. J. J. Byrne of my staff.

Sincerely,

B. K. Kanga Director, TMI-2

BKK/JJB/jep

Attachment

CC: Dr. B. J. Snyder, Program Director - TMI Program Office