July 22, 1982
4400-82-L-0113

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

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (THI-2)
Operating License DPR-73
Docket No. 50-320

Shipment of EPICOR II Prefilter (PF) Liners

The purpose of this letter is to expand on the information on shipping the EPICOR II prefilter liners presented to you in our letter, 4400-82-L-0062, dated May 21, 1982. In that letter we described the venting operations to be performed in order to prepare the pre­filter liners for shipment. These liners, with the exception of one (PF-3), will be shipped from Three Mile Island to the INEL site in Idaho by DOE using several certified Type B shipping containers. Liner PF-3 will be shipped to BCL in Columbus, Ohio. The liners will be prepared in accordance with GPU procedures approved pursuant to Technical Specification 6.8 and in compliance with the appropriate Certificate of Compliance for each shipping container. Per current schedule, the liners will be shipped beginning the second week in August 1982. Shipments will average four (4) per month over a one (1) year period. The liners will be inerted with nitrogen prior to shipment. During the inerting, several liners representative of those to be shipped will undergo a monitoring period of approximately two (2) weeks. During this period, the rate of production of hydrogen will be measured. The oxygen depletion rate will also be monitored if gas composition analysis results indicate the presence of oxygen. This information will be used in preparing a package that will ensure that the shipments will meet all applicable transportation regulations.
An assessment has been made to determine the criteria for ensuring a safe shipment in compliance with the applicable DOT and NRC regulations. These criteria listed below, when met, ensure that the shipment of EPICOR PF liners are within the applicable regulations.

- Sample and purge the EPICOR II PF liner with nitrogen after removing the liner vent plug until the combustible gas concentrations are less than the lower limits of flammability for the shipping window.

- Recap the liner and provide radiation surveys of the liner.

- Load the liner in a certified cask and provide an inert atmosphere within the cask volume prior to shipment. Since the SN-1 cask cannot be provided with an inert atmosphere, this cask will be used only to transport lower curie loaded liners which will not yield a hydrogen gas concentration greater than the lower flammability limits (i.e., four volume percent hydrogen).

- Conduct radiation and safety inspection of the cask shipment for compliance to all applicable DOT and NRC regulations.

- Prepare radiation surveillance, gaseous sampling results, and inspection reports to verify compliance to regulations.

- Prior to shipment, a shipping window will be determined by actual data or extrapolation from actual data for each liner. This shipping window will be at least two times the expected normal time for sending and receiving, handling, and transportation enroute. The expected normal shipping time for each legal weight cask is seven days and eight days for each overweight cask.

The data gained during the sampling, monitoring, inerting, and preparation of the liners for shipment, as described in our letter 4400-82-L-0062, will be used to ensure that the shipments are within the applicable regulations and that the shipments meet all criteria for a safe shipment.

Additionally, an assessment has been made that concluded that the shipments will be within the design specifications for the shipping casks and that no adverse environmental effect existed for the proposed shipping of the EPICOR II PF liners, when shipped one at a time by truck to its final destination in Idaho.

GPU concludes that the preparation and shipment of the 49 EPICOR II prefilters does not constitute a threat to the health and safety of the public and does not constitute an unreviewed safety question, as previously assessed. We, therefore, propose to inert and ship the EPICOR II prefilter liners as described.

Sincerely,

J. J. Barton
Acting Director, TMI-2

JJB/RBS/jep
CC: B. J. Snyder, Program Director - TMI Program Office