

## **GPU Nuclear Corporation**

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October 8, 1982 4410-82-L-0026

Office of Nuclear Reactor Regulation Attn: Mr. Harold M. Denton, Director US Nuclear Regulatory Commission Mailstop P-428 Washington, DC 20555

Dear Mr. Denton:

In response to your letter of September 8, 1982, and in accordance with our response letter of September 21, 1982, GPU Nuclear Corporation is providing information regarding schedules for the removal of EPICOR II prefilters, Submerged Demineralizer System ion exchange wastes, and eactor Coolant Purification System ion exchange wastes.

## 1. EPICOR II Prefilter Shipments

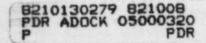
Four EPICOR II prefilters have already been shipped off-site with the anticipated schedule for the shipment of the 46 remaining EPICOR II prefilters to be as indicated below. In preparing this schedule, consideration was given to the normal problems which occur in such shipment such as minor corrective maintenance problems with equipment and weather conditions. The schedule does not, however, include any abnormal problems which may occur such as major/key equipment breakdown or severe weather conditions which may hamper shipments. Additionally, the assumption that these prefilters will be accepted by the Department of Energy (DOE) as they are readied for shipment has been made. Should the DOE place my restrictions on receipt of these prefilters, the schedule may be extended.

Another consideration in the development of a shipping schedule for the EPICOR II prefilters is the licensing of two shipping casks designed by Ridihalgh, Eggers, and Associates (REA) for the shipments of EPICOR II prefilters. The current licensing situation concerning the REA casks necessitated the development of two schedules.

## Schedule No. 1 - Use of REA Casks

Schedule No. 1 makes the following assumptions: (a) the REA casks can be licensed and available for use by TMI-2 in February, 1983; (b) TMI-2 has the use of the presently licensed HN-200 and CNSI-120 casks until the REA casks are available; and (c) use of the GPUNC

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owned SN-1 cask for shipment of some prefilters provided the cask radiation profile is acceptable.

October 1982: Start Shipment.

Projected shipment of eight (8) to ten (10) liners during the last quarter of 1982.

Completion of shipment of all 46 liners by the end of 1983 based upon approximately seven (7) shipments every two (2) months.

Schedule No. 2 - Use of HN-200, SN-1, and CNSI 8-120 Casks Only

Schedule No. 2 has been prepared on the assumption that the REA casks will not be available for shipment of the EPICOR II prefilters. This schedule is contingent on the availability for the HN-200 and CNSI 8-120 casks as GPUNC has no guarantee from the vendors that these casks will be available on a continuing basis.

October 1982: Start shipment.

Projected shipment of eight (8) to ten (10) liners during the last quarter of 1982.

Completion of shipment of all 46 liners end of first quarter of 1984, based upon average shipment of five (5) liners every two (2) months.

2. Submerged Demineralizer System Ion Exchange Wastes

The ion exchange waste generated by the Submerged Demineralizer System is labeled as ion exchange vessels, leakage containment vessels, and filter vessels.

Of the fourteen (14) ion exchange vessels, one (1) vessel has already been shipped from TMI-2. Of the remaining vessels, five (5) are currently in service and will require on-site characterization following removal from service. Two (2) have been removed from service and are awaiting on-site characterization. Six (6) have been removed from service, characterized, and are awaiting prepartion for shipment. This preparation will be performed by a system designed for vessel vacuum pumpdown and catalyst insertion. This system will be installed and tested in the fourth quarter of 1982. Assuming success of this system and exclusive use of the CNSI 1-13C-2 cask, the projected completion for shipment of the ion exchange vessels currently removed from service is the third quarter of 1983.

There are six (6) leakage containment vessels at TMI-2. Two (2) are currently in service. Two (2) have been removed from service and require sluicing into a 6x6 liner prior to disposal. Two (2) have been removed from service and require, due to their curie content, sluicing into a 6x6 liner, sampling, and solidification prior to disposal. The sluiced resins will be shipped when the 6x6 liners are at full capacity. The twelve (12) filter vessels include two (2) that are currently in service, seven (7) that have been removed from service and characterized, and three (3) that have been removed from service and require characterization. Characterizations performed to date indicate that several spent filter vessels are potential candidates for commercial burial. Providing repository receipt is available, projection to complete the shipment of filter vessels currently removed from service is the last quarter of 1984, based on shipments being able to start mid-December 1983.

## 3. Removal of the Reactor Coolant Purification System Ion Exchange Wastes

The following deliberates the status of activities currently underway and those which are planned in an effort to characterize the letdown purification demineralizers to obtain the necessary technical information to effect their safe removal. The majority of the tasks are DOE funded since the activities leading to the removal of the resins consist of research and development activities.

GPU initiated a program to obtain radiological and video data from the "A" and "B" demineralizer cubicles in July 1982. Numerous video tapes and radiological surveys have been obtained. In addition, crystalline material samples were obtained from the "A" cubicle and Solid State Track Recorders (SSTR's) were placed on the tank within "A" cubicle for neutron detection. Video and radiological data gathering was assisted using a robot provided by a DOE contractor. The following activities are scheduled for completion by the end of the fourth quarter of 1982: (a) a gamma spectrum of the "A" cubicle; (b) removal and reading of the SSTR's in the "A" cubicle; and (c) installation and use of a periscope to take pictures in both cubicles.

Engineering activities to obtain gas and/or liquid samples from both demineralizers are also in progress. Analysis of the samples is expected to be completed by the end of the first quarter of 1983.

Engineering activities for obtaining demineralizer resin samples are anticipated to commence within the next few weeks. Analysis of the 1\_sin samples to be obtained is scheduled for completion by the end of the second quarter of 1983.

In June 1982, a DOE contractor initiated a study to assess the resin removal alternatives. The removal techniques fall generally into three categories: (a) sluicing; (b) dissolution; and (c) whole demineralizer removal. Additionally, results of characterizations performed by GPUNC will be supplied to DOE as the data becomes available which will be used to determine which of the above removal options will be implemented. This assessment will be completed by the end of 1983. Since this activity is a research and development activity, schedule for development of hardware, installation of such hardware, and removal of resins will be developed as the research progresses. It is anticipated that resins will be ready for off-site shipment in late 1984.

TMI on-site NRC personnel are able to follow these Research and Development activities as they occur.

Sincerely, R. C. Amolo

President

RCA/JJB/jep

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