

#### **GPU Nuclear Corporation**

Post Office Box 480 Route 441 South Middletown, Pennsylvania 17057-0191 717 944-7621 TELEX 84-2386 Writer's Direct Dial Number:

(717) 948-8400

4410-84-L-0081

May 22, 1984

TMI Program Office
Attn: Dr. B. J. Snyder
Program Director
US Nuclear Regulatory Commission
Washington, DC 20555

Dear Dr. Snyder:

Three Mile Island Nuclear Station, Unit 2 (TMI-2) Operating License No. DPR-73 Docket No. 50-320 Updated Major Milestone Schedule for the TMI-2 Cleanup

Further to my letter dated March 2, 1984, the TMI-2 Project has received additional funding and, therefore, has accelerated certain activities.

The following is the anticipated 1984 funding for TMI-2:

GPU Nuclear	\$70.0 M
Department of Energy	19.3 M
Japanese Participants	3.0 M
Electric Power Research Institute	.9 M
TOTAL:	\$93.2 M
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Attachment A provides the revised Master Schedule for 1984 which is based on the funding level indicated above and reflects the initial results of our analysis to optimize expenditures on activities to improve the start of fuel removal. As you are aware, studies are currently underway which could influence the schedule and we will advise you of any significant changes resulting from these studies.

Attachment B provides the Decontamination and Defueling Program Technical Basis in support of this schedule.

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GPU Nuclear Corporation is a subsidiary of the General Public Utilities Corporation

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We will provide you with a schedule for activities in 1985 and out years next month.

If you have any questions please call me.

Sincerely,

Kanga Director, TMI 12

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Attachments

CC: Deputy Program Director - TMI Program Office, Mr. L. H. Barrett

ATTACHMENT A .

# TMI-2 1984 PROGRAM MASTER SCHEDULE

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## TMI-2 1984 PROGRAM MASTER SCHEDULE

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### 1984 DECONTAMINATION AND DEFUELING PROGRAM TECHNICAL BASIS

### DOSE REDUCTION/DECONTAMINATION

### Reactor Building

Characterization/dose reduction/decontamination activities will continue on the 305' and 347' elevations. Contributions from 282' are either inconsequential or can be shielded. Activities planned are as follows:

- Perform detailed surveys to support shielding of hot spots and shine areas.
- Decontamination/dose reduction as required to improve current conditions.
- Utilize remote technology to pursue data acquisition activities on Elevation 282', to the extent that external funding is available.

Auxiliary and Fuel Handling Buildings (AFHB)

### Decontamination

- General area decontamination activities will be those required to maintain current conditions.
- Replace the cork expansion joint in the annulus area between the AFHB and Reactor Building.
- Perform cubicle decontamination operations as required to permit access for plant technical specification surveillances, which have thus far been deferred for ALARA reasons.
- Continue efforts associated with the Makeup & Purification System to achieve hazard reduction by elution followed by decontamination using the Submerged Demineralizer System. Laboratory scale tests on Ion Exchanger B Resin samples confirm that a 90 percent elution goal can be achieved.

#### REACTOR DISASSEMBLY AND DEFUELING (RD&D)

### Reactor Vessel Head Removal

Head removal, is projected to be completed in August 1984.
 The polar crane load test sequence was completed in Feburary 1984.
 Significant activities associated with the head removal task that

### RD&D IN 1984 (cont.)

Reactor Vessel Head Removal (cont.)

remain in 1984 are leadscrew parking, final stud detensioning, installation of head lift rigging, removal of the reactor vessel head and the installation and water fill of the modified internals indexing fixture.

#### Reactor Vessel Plenum Removal

- General plenum removal task preparations to be performed in 1984 include the completion of the plenum drop analysis, the Safety Evaluation Report, and the criticality analysis required to support inspection and initial lift. Also scheduled is the design, procurement and installation of reactor building chillers and refurbishment of the breathing air system to improve reactor building habitability.
- o The first significant plenum subtask is the plenum inspection, currently projected for performance in October 1984. Activities scheduled in 1984 to support this subtask are the completion of inspection engineering, establishment of required area radiation monitoring, lighting and power, fabrication and delivery of inspection tooling, modifications to the refueling bridge, development of the plenum inspection procedure and field training and mockup.
- The next plenum subtask is the jacking (initial lift) of the plenum, currently projected for completion in February 1985. Scheduled in 1984 to support this task is the completion of initial lift engineering and fabrication of required tooling and commencement of jacking procedure development.
- o The final subtask is lift and storage of the plenum. Activities in 1984 to support this subtask are the continuation of final lift engineering, the pursuit of final lift rigging, the commencement of final lift tooling fabrication, development of the final lift procedure and software required for preparation of the plenum storage.
- o The Defueling Test Assembly, to be used for on-site training, checkout and planning of plenum and fuel removal operations, will be available in August 1984. Activities to be performed in 1984 include the installation of the tank, piping, electrical hookups, the issuance of the defueling test assembly functional and operating description, along with the operating procedure.

Reactor Vessel Fuel Removal

 Activities in 1984 to support fuel removal are the selection of a defueling system, followed by the commencement of detailed system design, and the initial preparations of the fuel removal safety

May 9, 1984

### RD&D IN 1984 (cont.)

## Reactor Vessel Fuel Removal (cont.)

evaluation report. Support of the evaluation and pursuit of licensable fuel shipping casks will continue in 1984 to support the start of the fuel shipping campaign. Other 1984 activities include commencing fabrication of fuel and filter canisters.

### Ex-Vessel Fuel Location

 Determine locations, within the reactor coolant system, other than the vessel, where significant amounts of fuel may be present.
 Begin engineering efforts required to establish fuel removal methods for each location.

Core Support Assembly Removal

 Begin planning, data acquisition and conceptual design efforts for CSA removal.

### Defueling Water Cleanup System

o The defueling water cleanup system is required to process fuel pool, refueling canal and reactor vessel water. To support system availability at this time, engineering will continue, material procurement, equipment fabrication and delivery will commence. The System Technical Evaluation Report will be developed.

### Refueling Canal Modifications

o Replacement of each of the existing fuel transfer mechanisms with a cable drive fuel transfer mechanism for reliability, and modification to the upenders is required. The 1984 scope of work to accomplish this includes the continuation of modification engineering, removal and shipment of existing carriages and the completion of component fabrication and delivery.

### "A" Fuel Pool Refurbishment

 Refurbishment of "A" fuel pool, required for access to the pool side of the fuel transfer mechanisms and the eventual installation of new fuel storage racks, is scheduled for completion in December 1984. Activities scheduled for 1984 to complete this task are the decontamination of lower tanks, disposal of the SDS feed manifold; the completion of shield slab storage; the completion of upper and lower tank removal and the completion of associated tank farm piping and structural steel removal.

#### GENERAL SUPPORT FACILITIES

A review of the facilities was completed and the following conclusions were drawn:

### GENERAL SUPPORT FACILITIES (cont.)

- There will be no need for additional processed water storage capacity.
- Existing waste staging capacity is sufficient to provide for TMI-2 plant requirements without expansion in 1984.
- Expanded waste storage capacity (5-year storage facility) will be required as a result of the Low Level Waste Policy Act. Waste identification and characterization as well as preliminary design for this capacity will begin in 1984.
- Outstanding enhancements to the Interim Solid Waste Staging facility (carport) will be completed.
- o The recirculation mode of the Processed Water Storage System will be complete in June 1984 to allow transport of processed water back into the plant for use in recovery.

### WASTE MANAGEMENT

Activities are included to maintain current conditions and to satisfy program needs in 1984.

 Waste shipping and disposal impacts are being evaluated as a result of 10CFR61 and 10CFR20.311.

#### FUNDING

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The 1984 program described above is based on the following funding:

Source		SMM
External Agencies	Japan DOE	3.0 19.3
GPUNC (including Comm of	EPRI PA)	.9 70.0
		93.2

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