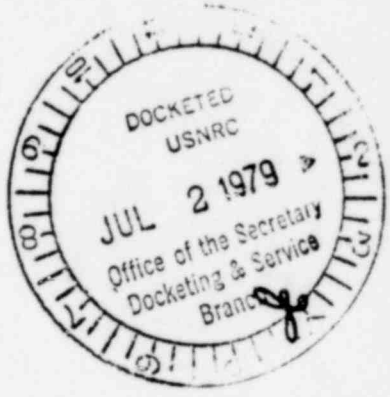
GPU Service

GPU Service Corporation
260 Cherry Hill Road
Parsippany New Jersey 07054
201 263-4900
TELEX 136-482

June 27, 1979



Mr. Harold Denton
Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Denton:

SUBJECT: THREE MILE ISLAND NUCLEAR STATION,
UNIT 1 (TMI-1)
OPERATING LICENSE NO. DPR-50
DOCKET NO. 50-289

By letter dated April 16, 1979 (GQL-0576), we committed to providing significant advance notice prior to taking TMI-1 out of cold shutdown. We have identified a number of Modifications/Actions to be completed prior to the TMI-1 restart. We expect to be able to complete these changes on or about September 1, 1979 and it is our hope that we would be able to receive the necessary approvals from the NRC to support that schedule. However, the reactor will not be restarted until items 1(a) through 1(h) below are completed and we have received your approval.

1. Modifications/Actions to be completed prior to TMI-1 Startup (short-term):

   (a) Upgrade of the timeliness and the reliability of the Auxiliary Feedwater System as described in Enclosure 1. Changes in the design will be submitted to the NRC for review.

   (b) Develop and implement operating procedures for initiating and controlling the Auxiliary Feedwater System independent of the ICS control.

   (c) Install a hard-wired control-grade reactor trip on loss of main feedwater and/or turbine trip.

   (d) Develop and implement procedures and instructions to define operator actions for small break loss of coolant accidents. Review recent B&W analyses of small break loss of coolant accidents and confirm their applicability to TMI-1.

   (e) Augmented retraining of all Reactor Operators and Senior Reactor Operators assigned to the control room will be conducted including training in the areas of natural circulation, small break loss of coolant accidents and the TMI-2 accident. All operators will also receive training at the B&W simulator on the TMI-2 accident. Met-Ed will conduct 100% reexamination of all operators.

1049 259

7909270 418

Mr. Herman Dieckamp and I plan to be present at the Commission's meeting today and we would be pleased to answer any questions with respect to this request.

Sincerely,

George F. Trowbridge
Counsel for GPU

Enclosure

cc w/enclosure:

Commissioner Victor Gilinsky
Commissioner Richard Kennedy
Commissioner Peter Bradford
Commissioner John Ahearne
Samuel J. Chilk, Secretary
Leonard Bickwit, General Counsel

ENCLOSURE 1

AUXILIARY FEEDWATER UPGRADING

1. Automatic initiation of the motor driven AFW pumps upon loss of both feedwater pumps or loss of four (4) Reactor Coolant Pumps.

2. Modification of the AFW control valves such that they fail open on loss of air.

3. Automatic block loading of the motor driven AFW pumps on the diesel.

4. Incorporation of AFW in the TMI-1 technical specifications as specified in IE Bulletin 79-05A, item 8. Verification that technical specification requirements of AFW capacity are in accordance with the accident analysis will be conducted.

5. Provide indication in the control room of AFW flow to each Steam Generator.

6. Provide procedures and training to assure that AFW is available and properly applied when required. Procedures will identify the need to verify proper operation when AFW is initiated.

7. To assure that AFW will be aligned in a timely manner to inject on all AFW demand events when in the surveillance test mode, procedures will be implemented and training conducted to provide an operator at the necessary location in communications with the control room during the surveillance mode to carry out alignment changes necessary upon AFW demand events.

8. Design review and modifications, as necessary, will be conducted to provide control room annunciation for all auto start conditions of the AFW system.

(f) Complete those additional items in Enclosure 3 designated as short term.

(g) Upgrade the station emergency response capability as described in Enclosure 2.

(h) A degreed "shift" engineer will be on site at all times during plant operation to provide additional support and advise shift operating personnel.

In addition to the above short term improvements, Met-Ed requests the NRC to recertify the TMI-1 operators. Further, Met-Ed will accomplish the below listed long term items on an expedited basis:

2. Modifications/Actions to be completed on an expedited basis but not necessarily before startup of TMI-1 (long term):

(a) Provide, as soon as practicable, a failure mode and effects analysis of the ICS. (This task is underway with high priority at B&W).

(b) The hard-wired trips referenced above under item 1(c) will be upgraded to safety grade in so far as practicable.

In addition to the above short term and long term items, Enclosure 3 also provides a list of additional items which Met-Ed intends to accomplish. These items, we believe, will further enhance the capability and reliability of the reactor to respond to various transient events.

Very truly yours,

J. G. Herbein
Vice President

JGH/ebs

Enclosures

cc: Mr. A. W. Reid

ENCLOSURE 2

EMERGENCY RESPONSE CAPABILITY UPGRADING

1. Provide the capability to supplement the shift and emergency organization personnel with a Met-Ed/GPU organization for off site emergency support when called for by the Emergency Plan. In addition, provide for a comprehensive organization to coordinate long term accident recovery and protective action.

2. Upgrade communications on site and off site in and to the TMI Emergency Control Centers.

3. Provide additional emergency equipment including respirators, dosimetry devices, and monitoring/analysis equipment. Significantly expand the radial and azmuthal distribution of TLD's as part of the routine radiological environmental monitoring program.

ENCLOSURE 3

OTHER MODIFICATIONS TO BE COMPLETED BEFORE STARTUP

OR AS SOON AS PRACTICABLE THEREAFTER

A. Before Startup (Short Term)

1. Reduce the high pressure reactor trip to 2300 psig.

2. Upgrade selected instruments and valve operators in containment by applying heat shrink tubing to electrical connections for water tightness.

3. Hookup 16 incore thermocouples to the plant computer with readout capability to 2300°F.

4. Revise containment isolation signals to isolate all lines which do not degrade core cooling upon initiation of HPI or other appropriate signal such as high radiation.

5. Revise valve position indications to show actual valve position versus demanded position on all appropriate valves.

6. Improve plant computer printout and alarm capability.

7. Raise the PORV setpoint to 2450 psig.

8. Provide an unambiguous indication of PORV position.

9. Provide remote essential maintenance for the decay heat removal pumps to minimize post accident personnel radiation exposure and improve reliability.

10. Install a H_2 recombiner with provision to hookup a second one.

11. Install the approved HPI cross connection to eliminate the need for prompt operator action after small break loss of coolant accident as described in our letter dated November 21, 1978 (GQL-1619.

12. Raise selected Steam Generator level instruments to 72 inches above the containment floor.

13. Complete modifications to provide TMI-1 sampling capability independent of TMI-2 and to isolate the TMI-1 Fuel Handling Building ventilation from TMI-2.

B. As Soon As Practicable (Long Term)

1. Hookup all 52 incore thermocouples as specified in A.3 above.

2. Improve plant computer data and trend display capability.

3. Install an instrument to alarm and indicate RCS approach to saturation conditions.

4. Increase the range of RCS temperature indication for the hot and cold legs.

5. Automate switchover of the ECCS pumps from the BWST to the Reactor Building sump.

6. Upgrade the Reactor Building Spray system to eliminate sodium thiosulfate addition.

7. Upgrade the coating of the Reactor Building and Auxiliary Building lower levels to reduce penetration of radioactive contaminates where additionally required.

8. Provide for Reactor Building sump level measurement and sampling.

9. Provide a system for waste gas tank venting to Containment.

10. Raise the pressurizer level instrument to 72 inches above the containment floor.