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April 26, 1982  
NRC/TMI-82-025

Mr. John J. Barton  
Acting Director, TMI-2  
GPU Nuclear Corporation  
P.O. Box 480  
Middletown, PA 17057

Dear Mr. Barton:

Subject: Recovery Operations Plan Change Request No. 11  
(Deletion of Long Term "B" Steam Generator Cooling System)

Reference: Your letter of April 15, 1982, 4400-82-L-0061

We have received the referenced letter, which transmits a copy of your letter of December 11, 1981 (No. LL2-81-0266) and the subject Change Request No. 11. This Change Request, which deletes the long term "B" steam generator cooling system as one of the back-up modes for removing decay heat from the reactor coolant system, was previously submitted to us as Technical Specification Change Request No. 33 to Operating License No. DPR-73. It was approved by us in our Amendment of Order letter of April 1, 1982.

A copy of the approved Change Request is enclosed. Also enclosed are six pages of Change Request No. 9, which we had approved in our letter of April 9, 1982.

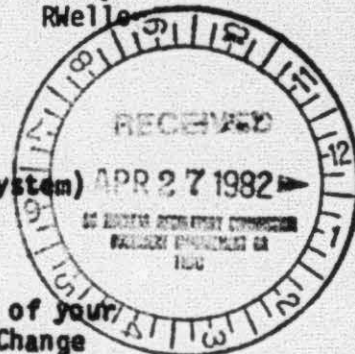
Original signed by  
Lake H. Barrett

Lake H. Barrett  
Deputy Program Director  
TMI Program Office

Enclosures: Page No. 4.7-1 Change No. 11  
4.1-2 Change No. 9  
4.3-7 " " "  
4.3-8 " " "  
4.6-1 " " "  
4.6-2 " " "  
4.6-3 " " "

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## SURVEILLANCE REQUIREMENTS

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### 4.7 PLANT SYSTEMS

#### 4.7.1 FEEDWATER SYSTEM

Deleted

#### 4.7.2 SECONDARY SERVICES CLOSED COOLING WATER SYSTEM

Deleted

#### 4.7.3 CLOSED CYCLE COOLING WATER SYSTEM

##### NUCLEAR SERVICES CLOSED CYCLE COOLING SYSTEM

4.7.3.1 Each nuclear services closed cycle cooling water loop shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1. Verifying that each pump starts and operates (unless already operating) for at least 15 minutes and that during pump operation: the "A" pump develops a differential pressure of at least 62.1 psid, the "B" pump develops a differential pressure of at least 63.1 psid, and the "C" pump develops a differential pressure of at least 64.1 psid.
2. Verifying that each accessible (per occupational exposure considerations) valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed or otherwise secured in position, is in its correct position.

b. At least once per 92 days by cycling each testable valve in the flow path through at least one complete cycle of full travel.

## SURVEILLANCE REQUIREMENTS

### BORON INJECTION (Continued)

- h. At least once per 24 hours by verifying the BWST temperature is at least 50°F when the outside air temperature is less than 50°F.
- i. At least once per 12 hours (when system is in operation) by verifying that the standby reactor coolant system pressure control system:
  - 1. Surge tank water volume is filled to between 55% and 80% of tank capacity and the tank is pressurized to the operating RCS pressure  $\pm$  25 psig but not higher than 600 psig.
  - 2. Isolation valves on the discharge side of the water filled tank nearest the reactor coolant system are open.
  - 3. The in-service nitrogen supply bank is pressurized to between 225 and 400 psig.
- j. At least once per 7 days by verifying that the standby reactor coolant system pressure control system surge tanks and the charging water storage tank contain borated water with:
  - 1. A boron concentration of between 3000 and 4500 ppm.
  - 2. A dissolved gas concentration of less than 15 scc/kg of water.\*
- k. At least once per 31 days by verifying that the standby reactor coolant system pressure control system isolation valve on the discharge side of the water filled tank nearest the reactor coolant system closes automatically on a tank low level test signal.

\*Dissolved gas concentration for the SPC System is determined by taking a representative sample from the sampling point located downstream of SPC-T-1.

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>DISPLAY METERS INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. RC Inlet Temp.	M	R*
2. Make Up Tank Level	M	R*
<u>DISPLAY INDICATIONS</u>		
3. Control Rod Drive Trip Breakers	M	N/A
<u>DISPLAY PATCH POINTS INSTRUMENT</u>		
4. NI Intermediate Range Level Log M	M	R*
5. NI Source Range Level	M	R*
6. Deleted		
7. Decay Heat Removal Flow	M	R*
8. Steam Generator Pressure A/B	M	R*

\*Nuclear detectors and all channel components located inside containment and components inaccessible due to occupational exposure considerations may be excluded from CHANNEL CALIBRATION.

TABLE 4.3-10

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>			
1.	Reactor Building Pressure	S	R*
2.	Deleted		
3.	Reactor Coolant Outlet Temperature	S	R*
4.	Steam Generator Level	N/A	N/A
5.	Borated Water Storage Tank Level	S	R*
6.	High Pressure Injection Flow	M**	R*
7.	Low Pressure Injection Flow	M**	R*
8.	Deleted		
9.	Steam Generator Pressure	S	R*
10.	Incore Thermocouples	S	R*
11.	Reactor Coolant System Pressure	S	R*
12.	Reactor Building Water Level (Heise Gauge)	N/A	SA#

\* Nuclear detectors and all channel components located inside containment and components inaccessible due to occupational exposure considerations may be excluded from CHANNEL CALIBRATION.

\*\* When applicable systems are in operation.

# Unless an appropriate engineering evaluation demonstrates the instrument to be in calibration.

## SURVEILLANCE REQUIREMENTS

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### 4.6 CONTAINMENT SYSTEMS

#### 4.6.1 PRIMARY CONTAINMENT

##### CONTAINMENT INTEGRITY

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that:
  1. All accessible (per occupational exposure considerations) penetrations not required to be open per approved procedures during RECOVERY MODE are closed by valves, blind flanges, or deactivated automatic valves secured in their positions.
  2. The equipment hatch is closed and sealed.
- b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3.

##### CONTAINMENT AIR LOCKS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. After each opening, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying less than or equal to 0.01 L seal leakage when the volume between the door seals is stabilized to a pressure to 10 psig.
- b. At least once per 6 months by conducting an overall air lock leakage test at  $P_a$ , 56.2 psig, and by verifying that the overall air lock leakage rate is within its limit. (Per occupational exposure considerations)

##### INTERNAL PRESSURE

4.6.1.4 The primary containment internal pressure shall be determined to within the limits at least once per 12 hours.

## SURVEILLANCE REQUIREMENTS

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### AIR TEMPERATURE

4.6.1.5 The primary containment average air temperature shall be the arithmetical average of the temperatures at the following locations and shall be determined at least once per 24 hours:

#### Location

- a. RB nominal Elev. 350' (1 temperature indication)
- b. RB nominal Elev. 330' (1 temperature indication)
- c. RB nominal Elev. 305' (1 temperature indication)

### 4.6.4 COMBUSTIBLE GAS CONTROL

#### HYDROGEN ANALYZERS

4.6.4.1 The gas partitioner shall be demonstrated OPERABLE at least once per 31 days by performing a CHANNEL CALIBRATION using sample gases containing:

- a. One volume percent hydrogen, balance air.
- b. Four volume percent hydrogen, balance air.

## SURVEILLANCE REQUIREMENTS

c. Deleted