# TMI-II

# RECOVERY

# OPERATIONS

# PLAN

## 4.1 WATER INJECTION COOLING AND REACTIVITY CONTROL SYSTEMS

### 4.1.1 BORATION CONTROL

BORON INJECTION

4.1.1.1 Two systems capable of injecting borated cooling water into the Reactor Coolant System shall be demonstrated OPERABLE:

a. DELETE

b. At least once per 31 days by verifying that each accessible (per occupational exposure considerations) valve (manual, power operated or automatic) in each flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. DELETE

d. DELETE

e. DELETE

## 4.7 PLANT SYSTEMS

### 4.7.1 FEEDWATER SYSTEM

4.7.1.1 Deleted.

4.7.1.2 Deleted.

4.7.1.3 The "B" steam generator closed loop cooling system shall be demonstrated OPERABLE at least once per 31 days by starting (unless already operating) the pump and verifying a flow rate of at least 2000 gpm when operating in the recirculation mode.

### 4.7.2 SECONDARY SERVICES CLOSED COOLING WATER SYSTEM

4.7.2.1 The secondary services closed cooling water system shall be demonstrated OPERABLE at least once per 31 days by verifying that each of the three pumps start and operate (unless already operating) for at least 15 minutes.

MINI DECAY HEAT REMOVAL SYSTEM

4.7.3.3 The Mini Decay Heat Removal System required by Technical Specification 3.7.3.3 shall be demonstrated OPERABLE:

A. At least once per 31 days by:

1. Verifying that the operating MDHR pump is capable of providing a flowrate of at least 50 gpm to the reactor coolant system.

2. Verifying that the in-service MDHR heat exchanger outlet temperature to the reactor coolant system is between 100°F and 135°F when the MDHR System flowrate to the RCS is 50 gpm.

# PROPOSED RECOVERY OPERATIONS PLAN

# CHANGE REQUEST

## Requested Change

It is requested that the TMI-2 Recovery Operations Plan be changed by replacing the existing pages 4.1-1 and 4.7-1 with the enclosed replacement pages. Add page 4.7-2a.

## Reason for Requested Change

The requested change is required to permit implementation of Proposed Technical Specification Change Request No. 24 for the Mini Decay Heat Removal (MDHR) System. Furthermore, it is requested that the enclosed Recovery Operations Plan change be transmitted concurrently with the Technical Specification change to permit simultaneous implementation.

The changes requested herein are discussed below.

1. Surveillance requirement 4.1.1.1a has been deleted in recognition of removal of the makeup pump flow path from the Technical Specifications.

2. Surveillance requirement 4.1.1.1a has been deleted in recognition of removal of the makeup pump flow path from the Technical Specifications.

3. Surveillance requirement 4.1.1.1d has been deleted to ensure that, should the required surveillance test be performed, reactor coolant is not circulated to the Borated Water Storage Tank (BWST). Because the Decay Heat System and the MDHR System use common piping the potential exists that residual reactor coolant could be recirculated to the BWST. Removal of the requirement to perform the surveillance test removes the potential of recirculating reactor coolant to the BWST.

4. Surveillance requirement 4.1.1.1e has been deleted in recognition of removal of the makeup pump flow path from the Technical Specifications.

5. Surveillance requirements 4.7.1.1 and 4.7.1.2 have been deleted in recognition of removal of the feedwater system from the Technical Specifications.

6. Surveillance requirement 4.7.3.3 has been added to establish the operability criteria of the Mini Decay Heat Removal System. The safety evaluation justifying the Technical Specification change for the MDHR System identifies that there exists two backup modes of core cooling in the event that the MDHR System is incapable of performing its intended function of the removal of decay heat from the reactor. Since the Technical Specification Change Request identifies the requirement for one operable MDHR pump and one operable MDHR heat exchanger the proposed surveillance requirements reflect the proposed Limiting Condition of Operation for the system.

Furthermore, our analysis results indicate that the cooling mode "Loss to Ambient" is an effective cooling mode. Therefore, the imposition of surveillance requirements on non-operating MDHR System components is neither justified nor desired.

The proposed surveillance requirements have the following bases:

1. MDHR System flowrate of 50 gpm has been specified to establish the required RCS flowrate for the removal of the generated decay heat.

2. MDHR System heat exchanger outlet temperatures have been specified based on the intent to permit the RCS bulk temperature to not exceed approximately 150°F and to keep the RCS bulk temperature above an acceptable minimum temperature for Boron solubility conditions.