EMERGENCY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Three independent steam generator emergency feedwater pumps and associated flow paths shall be OPERABLE with:

a. Two emergency feedwater pumps, each capable of being powered from an OPERABLE emergency bus, and

(mas

138 062

b. One emergency reedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

a. With one emergency feedwater system inoperable, restore the inoperable system to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each emergency feedwater system shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 - Verifying that each steam turbine driven pump develops a discharge pressure of > 1070 psig when the secondary steam supply pressure is greater than 200 psig.

Automatic actuation of emergency feedwater system may be blocked when OTSG steam Pressure < 800 psig.

THREE MILE ISLAND - UNIT 2

3/4 7-4

SURVEILLANCE REQUIREMENTS (Continued)

- 2. Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. At least once per 18 months, during shutdown, by:
 - Verifying that each automatic valve in the flow path actuates to its correct position on an emergency feedwater actuation test signal.
 - Verifying that each pump starts automatically upon receipt of an emergency feedwater actuation test signal.

3/4 7-5

BASES

3/4.7.1.2 EMERGENCY FEEDWATER SYSTEMS

The OPERABILITY of the emergency feedwater systems ensures that the Reactor Coolant System can be cooled down to less than 280°F from normal operating conditions in the event of a total loss of offsite power.

Each electric driven emergency feedwater pump is capable of delivering a total feedwater flow of 470 gpm at a pressure of 1133 psig to the entrance of the steam generators. Each steam driven auxiliary feedwater pump is capable of delivering a total feedwater flow of 940 gpm at a pressure of 1133 psig to the entrance of the steam generators. This capacity is sufficient to ensure that adequate feedwater flow is available to remove decay heat and reduce the Reactor Coolant System temperature to less than 280%F where the Decay Heat Removal System may be placed into operation.

244 7.1.3 CONDENSATE STORAGE TANKS

The OPERABILITY of the condensate storage tanks with the minimum water volume ensures that sufficient water is available for cooldown of the Reactor Coolant System to less than 280°F in the event of a total loss of offsite power or of the main feedwater system. The minimum water volume is sufficient to maintain the RCS at HOT STANDBY conditions for 13 hours with steam discharge to atmosphere concurrent with loss of offsite power. The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

3/4.7.1.4 ACTIVITY

The limitations on secondary system specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose includes the effects of a coincident 1.0 GPM primary to secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the safety analyses.

3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVES

The OPERABILITY of the main steam line isolation valves ensures that steam generator blowdown will not continue indefinitely in the event of a team line rupture. This restriction is required to 1) limit the positive

THREE MILE ISLAND - UNIT 2

B 3/4 7-2

EMERGENCY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Three independent steam generator emergency feedwater pumps and associated flow paths shall be OPERABLE with:

a. Two emergency feedwater pumps, each capable of being powered from an OPERABLE emergency bus, and

10.00

138 065

b. One emergency feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

a. With one emergency feedwater system inoperable, restore the inoperable system to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

- 4.7.1.2 Each emergency feedwater system shall be demonstrated OPERABLE:
 - a. At least once per 31 days on a STAGGERED TEST BASIS by:
 - Verifying that each steam turbine driven pump develops a discharge pressure of > 1070 psig when the secondary steam supply pressure is greater than 200 psig.

Automatic actuation of emergency feedwater system may be blocked when OTSG steam Pressure < 800 psig.

THREE MILE ISLAND - UNIT 2

3/4 7-4

SURVEILLANCE REQUIREMENTS (Continued)

- Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. At least once per 18 months, during shutdown, by:
 - Verifying that each automatic valve in the flow path actuates to its correct position on an emergency feedwater actuation test signal.
 - Verifying that each pump starts automatically upon receipt of an emergency feedwater actuation test signal.

3/4 7-5

BASES

3/4.7.1.2 EMERGENCY FEEDWATER SYSTEMS

The OPERABILITY of the emergency feedwater systems ensures that the Reactor Coolant System can be cooled down to less than 280°F from normal operating conditions in the event of a total loss of offsite power.

Each electric driven emergency feedwater pump is capable of delivering a total feedwater flow of 470 gpm at a pressure of 1133 psig to the entrance of the steam generators. Each steam driven auxiliary feedwater pump is capable of delivering a total feedwater flow of 940 gpm at a pressure of 1133 psig to the entrance of the steam generators. This capacity is sufficient to ensure that adequate feedwater flow is available to remove decay heat and reduce the Reactor Coolant System temperature to less than 280%F where the Decay Heat Removal System may be placed into operation.

2/4.7.1.3 CONDENSATE STORAGE TANKS

The OPERABILITY of the condensate storage tanks with the minimum water volume ensures that sufficient water is available for cooldown of the Reactor Coolant System to less than 280°F in the event of a total loss of offsite power or of the main feedwater system. The minimum water volume is sufficient to maintain the RCS at HOT STANDBY conditions for 13 hours with steam discharge to atmosphere concurrent with loss of offsite power. The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

3/4.7.1.4 ACTIVITY

The limitations on secondary system specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose includes the effects of a coincident 1.0 GPM primary to secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the safety analyses.

3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVES

the OPERABILITY of the main steam line isolation valves ensures that steam generator blowdown will not continue indefinitely in the event of a steam line rupture. This restriction is required to 1) limit the positive

THREE MILE ISLAND - UNIT 2

8 3/4 7-2