

PLANT SYSTEMS

3/4.7.10 EMERGENCY CHILLED WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.10 Two independent emergency chilled water systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4

ACTION:

- a. With only one emergency chilled water system OPERABLE, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With only one emergency chilled water system OPERABLE:
  1. Within 1 hour verify that the normal HVAC system is providing space cooling to the vital power distribution rooms that depend on the inoperable emergency chilled water system for space cooling, and
  2. Within 8 hours establish OPERABILITY of the safe shutdown systems which do not depend on the inoperable emergency chilled water system (one train each of boration, pressurizer heaters and auxiliary feedwater per Sections 3/4.1.2.2, 3/4.4.3 and 3/4.7.1.2, respectively) and
  3. Within 24 hours establish OPERABILITY of all required systems, subsystems, trains, components and devices that depend on the remaining OPERABLE emergency chilled water system for space cooling.

If these conditions are not satisfied within the specified time, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

---

4.7.10 Each of the above required emergency chilled water systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each manual valve servicing safety-related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position and,

8404260109 840424  
PDR ADCK 05000361  
P PDR

EMERGENCY CHILLED WATER SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

---

- b. At least once per 18 months by verifying that: each power operated or automatic valve servicing safety-related equipment actuates to its correct position and each chilled water pump starts automatically on a TGIS, CRIS, SIAS and, with irradiated fuel in the storage pool, FHIS.

## PLANT SYSTEMS

### BASES

#### 3/4.7.10 Emergency Chilled Water System

The OPERABILITY of the emergency chilled water system ensures that space cooling capacity is available for continued operation of safety-related equipment during accident conditions. The redundant cooling capacity of these systems is consistent with single failure criteria and the assumptions used in the accident analyses. A 7 day ACTION requirement is specified in the event of emergency chilled water system inoperability, based on the high reliability of offsite power and availability of the normal HVAC system. Further Actions (b.1, b.2 and b.3) are specified regarding the status of systems and equipment which are unit specific and common. These Actions are not intended to apply to the status of systems and equipment specific to the other Unit. When one emergency chilled water system is inoperable, there is an ACTION requirement to verify within 1 hour that the normal HVAC system is providing space cooling to the vital power distribution rooms that are served by the inoperable emergency chilled water system. Availability of the normal HVAC system permits the vital bus inverters and emergency battery chargers to continue to be considered OPERABLE by ensuring that environmental qualification limits are not exceeded (the loss of space cooling to the vital power distribution rooms will not result in loss of vital bus inverter or emergency battery charger function in less than 75 minutes). The requirement to establish OPERABILITY of all required systems, subsystems, trains, components and devices, that depend on the remaining emergency chilled water system for space cooling, is intended to provide assurance that an OPERABLE train of safety-related equipment is available to meet the requirements of the range of design basis events. The requirement to establish OPERABILITY of the minimum safe shutdown systems ensures that at least one train of safety systems is available to place the plant in a safe, stable condition in the event of transients such as loss of offsite power, a safe shutdown earthquake, or design basis fire prior to establishment of OPERABILITY of the remaining required safety systems. The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate OPERABILITY of the component. To establish OPERABILITY as used in this context means to either verify OPERABILITY as above or to return the required equipment to OPERABLE status and perform the associated surveillance requirements as required. Surveillances are specified to verify correct positioning of emergency chilled water system valves servicing equipment which is unit specific and common. It is not intended that surveillance of valves servicing equipment specific to the other Unit be required to establish ECWS OPERABILITY under this Technical Specification. The safety systems served by the emergency chilled water system cannot be considered OPERABLE in the absence of all (both normal and emergency) space cooling. The definition of OPERABILITY (TS 1.17) is to be used in conjunction with the Technical Specifications governing the affected systems, to determine the appropriate action requirement in the event of loss of all space cooling.