

MARKED-UP TECHNICAL SPECIFICATIONS

Remove Page

3/4 7-11
B 3/4 7-10

Insert Page

3/4 7-11
B 3/4 7-10 and
B 3/4 7-10a



PLANT SYSTEMS

3/4.7.3 VITAL COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1 At least two vital component cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With only one vital component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert A

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two vital component cooling water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each 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, and
- b. At least once per 18 months, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on a Safety Injection or Phase "B" Isolation test signal, as appropriate.

- c. At least once per 12 hours, by verifying the component cooling water surge tank is pressurized to greater than or equal to 17 psig, and
- d. At least once per refueling interval, by verifying that the component cooling water surge tank pressurization system leakage does not exceed 2.0 scfm.



Insert A

- b. With the component cooling water surge tank pressure less than 17 psig, and the 230 kV system OPERABLE or at zero voltage, restore the pressure to greater than or equal to 17 psig within 12 hours, or be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.
- c. With the component cooling water surge tank pressure less than 17 psig, and the 230 kV system degraded, either restore the component cooling water surge tank pressurization system or the 230 kV system to OPERABLE status, or open the vital 4 kV bus trip cut-out switches for autotransfer to startup within 1 hour, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the next 30 hours.



PLANT SYSTEMS

BASES

3/4.7.1:7 MAIN FEEDWATER REGULATING, BYPASS AND ISOLATION VALVES (continued)

exited. If a MFRV or a MFRV bypass valve is inoperable, another option is available to isolate the inoperable valve with at least one closed valve within 4 hours. This option is not available for the MFIVs since the MFIVs are in the Class I feedwater piping and there are no other valves, other than check valves, in the Class I piping that could be closed to isolate the Class I portion of the feedwater line.

3/4.7.3 VITAL COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the Vital Component Cooling Water (CCW) System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses. The OPERABILITY of the CCW System and the components that it cools is ensured if, following design basis accident initiation, the CCW supply temperature is maintained at less than or equal to 140°F for up to 6 hours and less than or equal to 120°F thereafter.

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3/4.7.4 AUXILIARY SALTWATER SYSTEM

Insert B

The OPERABILITY of the Auxiliary Saltwater System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

3/4.7.5 CONTROL ROOM VENTILATION SYSTEM

The OPERABILITY of the Control Room Ventilation System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. ANSI N510-1980 will be used as a procedural guide for surveillance testing, except laboratory testing of charcoal shall be performed in accordance with ASTM D3803-1989.

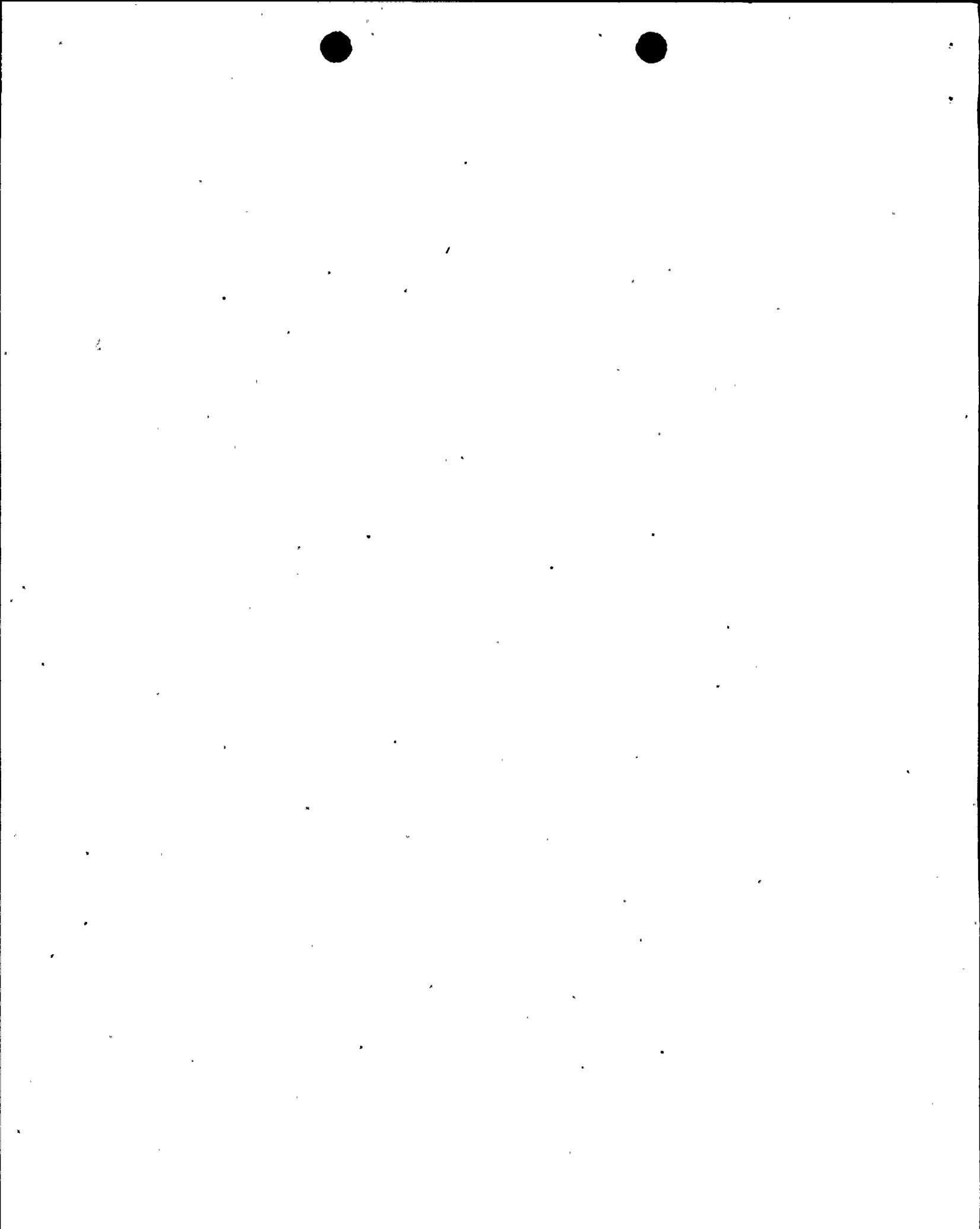


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The CCW surge tank is pressurized to a minimum of 17 psig to ensure that sufficient static head is available to prevent boiling in the containment fan cooler units following a design basis accident with a concurrent loss of offsite power. The 17 psig and the 2.0 scfm limit for system leakage testing do not include instrument error. Instrument error is accounted for in applicable surveillance procedures. The CCW surge tank pressurization system is common to both CCW vital headers (through the surge tank vapor space) and protects both headers. The 12 hour allowed outage time (AOT), when the 230 kV system is not degraded, should be sufficient to restore the CCW surge tank pressurization system to operable status and it minimizes the period of operation without the system. Also a 12 hour AOT has been determined to be risk acceptable based on a probabilistic risk assessment. When the 230 kV system is degraded, only 1 hour is allowed to restore the CCW surge tank pressurization system or the 230 kV system, or to take action to prevent double sequencing. Notification of degraded 230 kV conditions is made by Power Control (Reference: Operating Order 0-27, "Coordination of 500/230 kV System Activities," and System Operations Instruction 0-23). When the 230 kV system is degraded, opening the vital 4 kV bus trip cut-out switches for vital bus autotransfer to startup (4-HF-14, 4-HG-14, 4-HH-14) will force the vital busses to transfer directly to the EDGs, preventing double sequencing.



PROPOSED TECHNICAL SPECIFICATION PAGES



PLANT SYSTEMS

3/4.7.3 VITAL COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1 At least two vital component cooling water loops shall be OPERABLE.

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ACTION:

- a. With only one vital component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the component cooling water surge tank pressure less than 17 psig, and the 230 kV system OPERABLE or at zero voltage, restore the pressure to greater than or equal to 17 psig within 12 hours, or be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.
- c. With the component cooling water surge tank pressure less than 17 psig, and the 230 kV system degraded, either restore the component coolant water surge tank pressurization system or the 230 kV system to OPERABLE status, or open the vital 4 kV bus trip cut-out switches for autotransfer to startup within 1 hour, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

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- a. At least once per 31 days by verifying that each 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 18 months, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on a Safety Injection or Phase "B" Isolation test signal, as appropriate,
- c. At least once per 12 hours, by verifying the component cooling water surge tank is pressurized to greater than or equal to 17 psig, and
- d. At least once per refueling interval, by verifying that the component cooling water surge tank pressurization system leakage does not exceed 2.0 scfm.



PLANT SYSTEMS

BASES

3/4.7.1.7 MAIN FEEDWATER REGULATING, BYPASS AND ISOLATION VALVES (continued)

exited. If a MFRV or a MFRV bypass valve is inoperable, another option is available to isolate the inoperable valve with at least one closed valve within 4 hours. This option is not available for the MFIVs since the MFIVs are in the Class I feedwater piping and there are no other valves, other than check valves, in the Class I piping that could be closed to isolate the Class I portion of the feedwater line.

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The OPERABILITY of the Vital Component Cooling Water (CCW) System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses. The OPERABILITY of the CCW System and the components that it cools is ensured if, following design basis accident initiation, the CCW supply temperature is maintained at less than or equal to 140°F for up to 6 hours and less than or equal to 120°F thereafter.

The CCW surge tank is pressurized to a minimum of 17 psig to ensure that sufficient static head is available to prevent boiling in the containment fan cooler units following a design basis accident with a concurrent loss of offsite power. The 17 psig and the 2.0 scfm limit for system leakage testing do not include instrument error. Instrument error is accounted for in applicable surveillance procedures. The CCW surge tank pressurization system is common to both CCW vital headers (through the surge tank vapor space) and protects both headers. The 12 hour allowed outage time (AOT), when the 230 kV system is not degraded, should be sufficient to restore the CCW surge tank pressurization system to operable status and it minimizes the period of operation without the system. Also a 12 hour AOT has been determined to be risk acceptable based on a probabilistic risk assessment. When the 230 kV system is degraded, only 1 hour is allowed to restore the CCW surge tank pressurization system or the 230 kV system, or to take action to prevent double sequencing. Notification of degraded 230 kV conditions is made by Power Control (Reference: Operating Order 0-27, "Coordination of 500/230 kV System Activities," and System Operations Instruction 0-23). When the 230 kV system is degraded, opening the vital 4 kV bus trip cut-out switches for vital bus autotransfer to startup (4-HF-14, 4-HG-14, 4-HH-14) will force the vital busses to transfer directly to the EDGs, preventing double sequencing.

3/4.7.4 AUXILIARY SALTWATER SYSTEM

The OPERABILITY of the Auxiliary Saltwater System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.



PLANT SYSTEMS

BASES

3/4.7.5 CONTROL ROOM VENTILATION SYSTEM

The OPERABILITY of the Control Room Ventilation System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. ANSI N510-1980 will be used as a procedural guide for surveillance testing, except laboratory testing of charcoal shall be performed in accordance with ASTM D3803-1989.

