

PLANT SYSTEMS

3/4.7.11 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.11 The ultimate heat sink shall be OPERABLE with a water temperature of less than or equal to 75°F.

APPLICABILITY: MODES 1, 2, 3, AND 4

ACTION:

- a. With the ultimate heat sink water temperature $> 75^{\circ}\text{F}$ and $\leq 77^{\circ}\text{F}$, operation may continue provided the water temperature averaged over the previous 24 hour period is verified $\leq 75^{\circ}\text{F}$ at least once per hour. Otherwise, be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the ultimate heat sink water temperature $> 77^{\circ}\text{F}$, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.11 The ultimate heat sink shall be determined OPERABLE:

- a. At least once per 24 hours by verifying the water temperature to be within limits.
- b. At least once per 6 hours by verifying the water temperature to be within limits when the water temperature exceeds 70°F.

PLANT SYSTEMS

BASES

3/4.7.10 DELETED

3/4.7.11 ULTIMATE HEAT SINK

The limitations on the ultimate heat sink temperature ensure that sufficient cooling capacity is available to either,

- 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on maximum temperature are based on a 30-day cooling water supply to safety related equipment without exceeding their design basis temperature.

Various indications are available to monitor the temperature of the ultimate heat sink (UHS). The following guidelines apply to ensure the UHS Technical Specification limit is not exceeded.

The control room indications are normally used to ensure compliance with this specification. Control room indications are acceptable because of the close correlation between control room indications and local Service Water System (SWS) header indications (historically within approximately 2°F). The highest reading valid temperature obtained from the Unit 2 intake structure and the inlets to the Circulating Water System water boxes shall be used to verify the UHS temperature limit of 75°F is not exceeded.

When the highest reading valid control room indication indicates the temperature of the UHS is > 70°F, local SWS header indications must be used. The highest reading valid local SWS header temperature shall be used to verify the UHS temperature limit of 75°F is not exceeded. Normally, local SWS header temperature will be taken at the inlet to the vital AC switchgear room cooling coils. If the local SWS header temperature cannot be taken at the inlet to the vital AC switchgear room cooling coils, the inlet to the Reactor Building Closed Cooling Water heater exchangers, or other acceptable instrumentation should be used to determine SWS header temperature.

If the UHS temperature exceeds 75°F, plant operation may continue provided the LCO recorded water temperatures, averaged over the previous 24 hour period, are at or below 75°F. This verification is required to be performed once per hour when the water temperature exceeds 75°F. If the UHS temperature, averaged over the previous 24 hour period, exceeds the 75°F Technical Specification limit, or if the UHS temperature exceeds 77°F, a plant shutdown in accordance with the action requirements will be necessary.