

PLANT SYSTEMS

BASES

3/4.7.5 ULTIMATE HEAT SINK

The limitations on the ultimate heat sink level and temperature ensure that sufficient cooling capacity is available to either: (1) provide normal cooldown of the facility or (2) mitigate the effects of accident conditions within acceptable limits.

The limitations on minimum water level is based on providing a 30-day cooling water supply to safety-related equipment without exceeding its design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants," Rev. 2 (January 1976). The limitation on maximum temperature is based on the maximum allowable component temperatures in the Service Water and Component Cooling Water Systems, and the requirements for cooldown. The limitation on average sediment depth is based on the possible excessive sediment buildup in the service water intake channel.

3/4.7.6 FLOOD PROTECTION

The limitation of flood protection ensures that facility protective actions will be taken in the event of flood conditions. The only credible flood condition that endangers safety related equipment is from water entry into the turbine building via the circulating water system from Squaw Creek Reservoir and then only if the level is above 778 feet Mean Sea Level. This corresponds to the elevation at which water could enter the electrical and control building endangering the safety chilled water system. The surveillance requirements are designed to implement level monitoring of Squaw Creek Reservoir should it reach an abnormally high level above 776 feet. The Limiting Condition for Operation is designed to implement flood protection, by ensuring no open flow path via the Circulating Water System exists, prior to reaching the postulated flood level.

3/4.7.7 CONTROL ROOM HVAC SYSTEM

The control room emergency filtration/pressurization system consists of two independent, redundant trains that recirculate and filter the control room air, and two independent, redundant trains that pressurize the control room.

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. 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 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of 10 CFR 50 Appendix A. ANSI N510-1980 and ANSI N509-1980 will be used as a procedural guide for surveillance testing.

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3/4.7.7 CONTROL ROOM HVAC SYSTEM (Continued)

A Control Room Air Conditioning System (CRACS) consists of two independent and redundant trains that provide cooling and heating of recirculated control room air. Each Control Room Air Conditioning (CRAC) train includes two heating and cooling units, instrumentation, and controls to provide for control room temperature control. Each cooling unit provides 50% of the heat removal capability for its respective train.

A CRAC train is inoperable if it is not capable of removing the required heat load for plant conditions. The required heat load includes normal and post-accident conditions. The actual heat load and the heat removal capability needed to adequately cool the control room is dependent upon factors such as outdoor air temperature and safe shutdown impoundment water temperature. OPERABILITY determinations are based upon design basis conditions unless a specific evaluation has been performed which identifies the required heat load for actual conditions. Individual components are inoperable if they are not capable of performing their safety functions.

Due to the redundancy of trains, the diversity of components, and the annual variations in outdoor conditions, the inoperability of one component in a train or two components in different trains does not necessarily result in a loss of safety function for the CRACS. The intent of this condition is to maintain a combination of equipment such that 100% of the required heat removal capability of a single OPERABLE CRAC train remains available.

With one or more CRAC trains inoperable and at least 100% of the required heat removal capability equivalent to a single OPERABLE CRAC train available, the inoperable trains must be returned to OPERABLE status within 30 days. This Allowed Outage Time is based on the low probability of complete loss of cooling due to the redundancy of the support systems (electrical and cooling water), the capability of the OPERABLE train/components to provide the required cooling, the potential that plant staff actions can restore or mitigate the effects of component failures, and the time available to respond as loss of cooling does not have an immediate, irreversible impact.

While in MODES 5, 6 or during movement of irradiated fuel assemblies, if both trains cannot be restored to OPERABLE status within 30 days, an OPERABLE train (A or B) must be placed in operation immediately; otherwise, immediately suspend CORE ALTERATIONS and movement of irradiated fuel assemblies.

The OPERABILITY of the Control Room HVAC System ensures that: (1) the control room ambient air temperature does not exceed the allowable temperature per 3/4.7.10 for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable including temperature for operations personnel during and following all credible accident conditions.

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3/4.7.8 PRIMARY PLANT VENTILATION SYSTEM - ESF FILTRATION UNITS

The OPERABILITY of the ESF Filtration Units ensures that radioactive materials leaking from the ECCS equipment within the safeguards and auxiliary buildings following a LOCA are filtered prior to reaching the environment. These filtration units also ensure that radioactive materials leakage from within the fuel building are filtered prior to reaching the environment. Operation of the ESF filtration units 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. The operation of the ESF filtration units and the resultant effect on offsite dosage calculations was assumed in the safety analyses. ANSI N510-1980 and ANSI N509-1980 will be used as a procedural guide for surveillance testing.

The negative pressure envelope of the Auxiliary, Safeguards and Fuel Buildings is the portions of these buildings which is exhausted post accident to ensure that potential ECCS leakage is filtered.

3/4.7.9 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the Reactor Coolant System and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads.

Snubbers are classified and grouped by design and manufacturer but not by size. For example, mechanical snubbers utilizing the same design features of the 2-kip, 10-kip and 100-kip capacity manufactured by Company "A" are of the same type. The same design mechanical snubbers manufactured by Company "B" for the purposes of this Technical Specification would be of a different type, as would hydraulic snubbers from either manufacturer.

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with 10 CFR 50.71(c). The accessibility of each snubber shall be determined and approved by the Station Operation Review Committee (SORC). The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guides 8.8 and 8.10. The addition or deletion of any hydraulic or mechanical snubber shall be made in accordance with 10 CFR 50.59.

Surveillance to demonstrate OPERABILITY is by performance of the requirements of an approved inservice inspection program.