

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

that the remaining diesel generator and all the low pressure core and containment cooling subsystems supported by the OPERABLE diesel generator are OPERABLE. If this requirement cannot be met, an orderly SHUTDOWN shall be initiated and the reactor shall be placed in the COLD SHUTDOWN Condition within 24 hours.

2. Any combination of inoperable components in the core and containment cooling systems shall not defeat the capability of the remaining OPERABLE components to fulfill the cooling functions.
3. When irradiated fuel is in the reactor vessel and the reactor is in the COLD SHUTDOWN CONDITION or Refuel Mode:
 - a. If no work is being performed which has the potential for draining the reactor vessel, both core spray and RHR systems may be inoperable; or
 - b. If work is being performed which has the potential for draining the reactor vessel, at least two of any combination of core spray and/or RHR (LPCI or shutdown cooling mode) pumps shall be OPERABLE (including the capability to inject water into the reactor vessel with suction from the suppression pool) except as specified in Specification 3.5.G.3.b(1) and (2), below. A diesel generator required for operation of at least one of these pumps shall be OPERABLE.
 - (1) With one of the two pumps inoperable, restore the inoperable pump to OPERABLE status within four hours or suspend all operations with a potential for draining the reactor vessel.

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- (2) With both pumps inoperable, suspend all operations with a potential for draining the reactor vessel.
4. During a refueling outage, CORE ALTERATIONS may continue with the suppression pool volume below the minimum values specified in Specification 3.7.A.1 provided all of the following conditions are met:
- (a) The reactor head is removed, the cavity is flooded, the spent fuel pool gates are removed and spent fuel pool water level is maintained within the limits of Specification 3.9.C.
 - (b) At least one core spray subsystem is operable with suction aligned to the condensate storage tank(s).
 - (c) The condensate storage tanks contain at least 75,000 gallons of water which is available to the core spray subsystem. Condensate storage tank(s) level shall be recorded at least every 12 hours.
 - (d) No work is being performed which has the potential for draining the reactor vessel.
5. If the requirements of Specification 3.5.G.4 cannot be met, suspend CORE ALTERATIONS.

G. Minimum Low Pressure Cooling and Diesel Generator Availability

The purpose of Specification G is to assure that adequate core cooling equipment is available at all times. It is during refueling outages that major maintenance is performed and during such time that all low pressure core cooling systems may be out of service. This specification provides that should this occur, no work will be performed on the primary system which could lead to draining the vessel. This work would include work on certain control rod drive components and recirculation system. Thus, the specification precludes the events which could require core cooling. If work must be performed which has the potential for draining the vessel, Specification 3.5.G.3.b requires that certain low pressure core cooling subsystems be available and capable of injecting water into the reactor vessel from the suppression pool water supply. The condensate storage tanks are not considered to be an appropriate water supply as they are not safety related and could provide makeup water for core cooling for only a finite period of time.

The makeup capability of either one core spray pump or one low pressure coolant injection (LPCI) pump is more than double the leakage rate expected from a postulated failure of the control rod velocity limiter section. Since the system cannot be pressurized during refueling, the potential need for core flooding only exists and the specified combination of the core spray or the LPCI system can provide this. Specification 3.8 must also be consulted to determine other requirements for the diesel generators. To prevent extensive wear and stress on the diesel engines, the diesels are manually started and the speed incrementally increased to synchronous speed.

H. Maintenance of Filled Discharge Pipe

If the discharge piping of the core spray, LPCI subsystem, HPCI, and RCIC are not filled, a water hammer can develop in this piping when the pump and/or pumps are started. If a water hammer were to occur at the time at which the system were required, the system would still perform its design function. However, to minimize damage to the discharge piping and to ensure added margin in the operation of these systems, this Technical Specification requires the discharge lines to be filled whenever the system is in an operable condition.

I. Engineered Safeguards Compartments Cooling and Ventilation

One unit cooler in each pump compartment is capable of providing adequate ventilation flow and cooling. Engineering analyses indicate that the temperature rise in safeguards compartments without adequate ventilation flow or cooling is such that continued operation of the safeguards equipment or associated auxiliary equipment cannot be assured.