f. The isolation valves in the discharge header of the high head safety injection system are in the open position.

g. All valves, interlocks, and piping associated with the above components and required to function during accident conditions are operable.

h. During conditions of operation with reactor coolant system pressure in excess of 1,000 psig, the source of AC power shall be removed from the accumulator isolation valves MOV-841A and B at the motor control center and the valves shall be open.

i. Power may be restored to MOV-841A and B for the purpose of valve testing or maintenance providing the testing and maintenance is completed and power is removed within four hours.

2. During power operation, the requirements of 15.3.3.A.1, Items b and c, may be modified to allow one of each of the following components to be inoperable at any one time. If the system is not restored to meet the requirements of 15.3.3.A.1 within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 15.3.3.A.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.

a. One accumulator may be isolated for a period of up to one hour to permit a check valve leakage test. Before isolating an accumulator, the other accumulator isolation valve shall be checked open.

b. One safety injection pump may be out of service, provided the pump is restored to operable status within 24 hours. The other safety injection pump shall be operable.

c. Any valve in these systems required to function during accident conditions may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves in the system that provide the duplicate function shall be operable.

3. During power operation, the requirements of 15.3.3.A.1, Items d and e, may be modified to allow one of each of the following components to be inoperable at any one time. If the component is not restored to meet

the requirements of 15.3.3.A.1 within the time specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 15.3.3.A.1 are not satisfied within an additional 48 hours, the reactor shall be maintained in a condition with reactor coolant temperatures between 500 and 350°F, unless one residual heat removal loop is being relied upon to provide redundancy for decay heat removal. In this case the reactor shall be maintained between 350°F and 140°F.

a. One residual heat removal pump may be out of service, provided the pump is restored to operable status within 24 hours. The other residual heat removal pump shall be operable.

b. One residual heat exchanger may be out of service for a period of no more than 48 hours.

c. Any valve in the system, required to function during accident conditions, may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves in the system that provide the duplicate function shall be operable.

B. Containment Cooling and Iodine Removal Systems

1. A reactor shall not be made critical, except for low temperature physics tests, unless the following conditions associated with that reactor are met:
   a. The spray additive tank contains not less than 2675 gal. of solution with a sodium hydroxide concentration of not less than 30% by weight.
   b. Two containment spray pumps are operable.
   c. Four accident fan-cooler units are operable.
   d. All valves and piping, associated with the above components and required to function during accident conditions, are operable.
2. During power operation, the requirements of 15.3.3.B-1 may be modified to allow any one of the following components to be inoperable at any one time. If the system is not restored to meet the requirements of 15.3.3.B-1 within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 15.3.3.B-1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.
   a. One accident fan cooler may be out of service provided that cooler is returned to operable status within 48 hours. The other accident fan coolers shall be operable before initiating maintenance on the inoperable accident fan cooler.

b. One containment spray pump may be out of service provided the pump is restored to operable status within 48 hours. The remaining containment spray pump shall be operable before initiating maintenance on the inoperable pump.

c. Any valve required for the functioning of the system during accident conditions may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves in the system that provide the duplicate function shall be operable. (Exception: If a spray pump is removed from service per b above, valves associated with that train may be removed from service for the period specified for the pump.)

C. Component Cooling System

Single Unit Operation

1. One reactor shall not be made critical unless the following conditions are met:

   a. The two component cooling pumps assigned to that unit are operable.

   b. Either the component cooling heat exchanger associated with the unit together with one of the shared spare heat exchangers are operable or the two shared spare heat exchangers are operable.

   c. All valves, interlocks and piping associated with the above components, and required for the functioning of the system during accident condition, are operable.

2. During power operation, the requirements of 15.3.3.C-1 may be modified to allow one of each of the following conditions at any one time. If the system is not restored to meet the conditions of 15.3.3.C-1 within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 15.3.3.C-1 are not

The operable status of the various systems and components is to be demonstrated by periodic tests, defined by Specification 15.4.5. A large fraction of these tests will be performed while the reactor is operating in the power range. If a component is found to be inoperable it will be possible in most cases to effect repairs and restore the system to full operability within a relatively short time. For a single component to be inoperable does not negate the ability of the system to perform its function, but it reduces the redundancy provided in the reactor design and thereby limits the ability to tolerate additional equipment failures. If it develops that (a) the inoperable component is not repaired within the specified allowable time period or (b) a second component in the same or related system is found to be inoperable, the reactor will initially be put in the hot shutdown condition to provide for reduction of the decay heat from the fuel, and consequent reduction of cooling requirements after a postulated loss-of-coolant accident. This will also permit improved access for repairs in some cases. After a limited time in hot shutdown, if the malfunction(s) are not corrected, the reactor will be placed in the cold shutdown condition, utilizing normal shutdown and cooldown procedures. In the cold shutdown condition there is no possibility of an accident that would release fission products or damage the fuel elements.

The specified repair times do not apply to regularly scheduled maintenance of the engineered safety systems, which is normally to be performed during refueling shutdowns. The limiting times to repair are based on:

1) Assuring with high reliability that the safety system will function properly if required to do so.

2) Allowances of sufficient time to effect repairs using safe and proper procedures.