Attachment A

1. Replace Technical Specification pages 3.3-2, 3.3-3, 3.3-4, 3.3-5, 3.3-8, 3.3-9, 3.3-12, 3.6-2, 4.1-11, 4.3-2, 4.5-3, and 4.5-4.

a. The refueling water storage tank contains not less than 230,000 gallons of water, with a boron concentration of at least 2000 ppm.

b. Each accumulator is pressurized to at least 700 psig with an indicator level of at least 50% and a maximum of 82% with a boron concentration of at least 1800 ppm. Neither accumulator may be isolated.

c. Three safety injection pumps are operable.

d. Two residual heat removal pumps are operable.

e. Two residual heat exchangers are operable.

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

g. A.C. Power shall be removed from the following valves with the valves open: safety injection cold leg injection valves 878B and D, accumulator injection valves 841 and 865, and refueling water storage tank delivery valve 856. A.C. power shall be removed from safety injection hot leg injection valves 878A and C with the valves closed. D.C. control power shall be removed from refueling water storage tank delivery valves 896A and B with the valves open.

h. Check valves 853A, 853B, 867A, 867B, 878G, and 878J shall be operable with less than 5.0 gpm leakage each. The leakage requirements of Technical Specification 3.1.5.1 are still applicable.

3.3.1.2 During power operation, the requirements of 3.3.1.1 may be modified to allow components to be inoperable at any one time. More than one component may be inoperable at any one time provided that one train of the ECCS is operable. If the requirements of 3.3.1.1 are not satisfied within the time period specified below, the reactor shall be placed in hot shutdown within 6 hours and at T_{avg} <350°F in an additional 6 hours.

a. The refueling water storage tank may be inoperable for a period of up to one hour.

b. One accumulator may be inoperable or isolated for a period of up to one hour.

c. One safety injection pump may be out of service provided the pump is restored to operable status within 72 hours. The other two safety injection pumps shall be tested to demonstrate operability prior to initiating repair of the inoperable pump.

d. One residual heat removal pump may be out of service provided the pump is restored to operable status within 72 hours. The other residual heat removal pump shall be tested to demonstrate operability prior to initiating repair of the inoperable pump.

e. One residual heat exchanger may be out of service for a period of no more than 72 hours.

f. Any valve, interlock, or piping required for the functioning of one safety injection (SI) train and/or one low pressure safety injection train (LPSI or RHR) may be inoperable provided repairs are completed within 72 hours. Prior to initiating valve repairs, all other valves in the system shall be verified to be in the proper position. Except as specified in g. below, no valve cycling should be performed with one or more SI or LPSI valves inoperable.

g. If any of the 826 valves are inoperable and closed, cycle the normally closed valve in the other flow path. If either of the 826 valves which are normally closed are inoperable but open, then close the other valve in that flow path. If either of the 826 valves which are normally open are inoperable and open, then no cycling should be performed.

h. Those check valves specified in 3.3.1.1 h may be inoperable (greater than 5.0 gpm leakage) provided the inline MOVs are de-energized closed and repairs are completed within 12 hours.

3.3.1.3 Except during diesel generator load and safeguard sequence testing or when the vessel head is removed or the steam generator manway is open, no more than one safety injection pump shall be operable whenever the temperature of one or more of the RCS cold legs is 330°F.

3.3.1.3.1 Whenever only one safety injection pump may be operable by 3.3.1.3, at least two of the three safety injection pumps shall be demonstrated inoperable a minimum of once per twelve hours by verifying that the control switches are in the pull-stop position.

3.3.2 <u>Containment Cooling and Iodine Removal</u>

3.3.2.1 The reactor shall not be made critical except for low temperature physics tests, unless the following conditions are met:

a. The spray additive tank contains not less than 4500 gallons of solution with a sodium hydroxide concentration of not less than 30% by weight.

b. At least two containment spray pumps are operable.

c. Four fan cooler units are operable.

d. At least two charcoal filter units are operable.

e. All valves and piping associated with the above components which are required to function during accident conditions are operable.

f. At least two HEPA filter units with demisters are operable.

3.3.2.2 During power operation, the requirements of 3.3.2.1 may be modified to allow one of the following components to be inoperable at any one time. If the system is not restored to meet the requirements of 3.3.2.1 within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.3.2.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.

a. One fan cooler may be out of service for a period of no more than 7 days.

b. One containment spray pump may be out of service provided the pump is restored to operable status within 3 days. The remaining containment spray pump shall be tested to demonstrate operability before initiating maintenance on the inoperable pump.

c. Any valve or piping in the system, required to function during accident conditions, may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs on valves, all valves in the system that provide the duplicate function shall be verified to be in the proper position. In addition, if the inoperable valve is MOV 836 A or B or MOV 860 A, B, C or D and the inoperable valve is closed, the redundant valve shall be tested to demonstrate opening capability. If the inoperable valve is 5871, 5872, 5873, 5874, 5875 or 5876, and it is not in the position to fulfill its safeguard function, the set of valves on the redundant charcoal filter shall be tested to demonstrate operability. No other valve cycling is required.

reactor coolant to near operating temperature by running the Reactor Coolant Pumps. The reactor is then made critical by withdrawing control rods and/or diluting boron in the coolant.[1] With this mode of startup, the energy stored in the reactor coolant during the approach to criticality is substantially equal to that during power operation and therefore all engineered safeguards and auxiliary cooling systems, with the one exception of one fan cooler, as discussed below, are required to be fully operable. During low temperature physics tests, there is a negligible amount of stored energy in the reactor coolant, therefore an accident comparable in severity to the Design Basis Accident is not possible, and the engineered safeguards systems are not required. The operable status of the various systems and components is to be demonstrated by periodic tests in the Specifications. 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. To provide maximum assurance that the redundant component(s) will fulfill their required function, the redundant component(s) are verified to be properly aligned prior to initiating repair of the inoperable component. Redundant pumps are tested to assure operability and those valves which must change position to fulfill their safety function during the safeguards actuation sequence are tested provided that during the test a failure of the component being tested cannot result in both trains of the equipment being inoperable or cannot subject a system to pressures in excess of the design pressure. Thus, only certain of the MOVs in the safety injection and low pressure safety injection systems are to be cycled. Other specific testing requirements are called out for the containment spray and charcoal filter systems.[10] 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 plant operating procedures will require immediate action to effect repair of an inoperable component, and therefore in most cases repairs will be completed in less than the specified allowable repair times. Furthermore, the specified repair times do not apply to regularly scheduled maintenance of the engineered safeguards 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 safeguard system will function properly if required to do so.

until repairs are effected.[6][7]

The facility has four service water pumps. Only one is needed during the injection phase, and two are required during the recirculation phase of a postulated loss-of-coolant accident.[8] The control room emergency air treatment system is designed to filter the control room atmosphere during periods when the control room is isolated and to maintain radiation levels in the control room at acceptable levels following the Design Basis Accident.[9] Reactor operation may continue for a limited time while repairs are being made to the air treatment system since it is unlikely that the system would be needed.

The limits for the accumulator pressure and volume assure the required amount of water injection during an accident, and are based on values used for the accident analyses. The indicated level of 50% corresponds to 1108 cubic feet of water in the accumulator and the indicated level of 82% corresponds to 1134 cubic feet.

The limitation of no more than one safety injection pump to be operable and the surveillance requirement to verify that two safety injection pumps are inoperable below 330°F provides assurance that a mass addition pressure transient can be relieved by the operation of a single PORV.

<u>References</u>

(1) FSAR Section 9.3

(2) FSAR Section 6.2

(3) FSAR Section 6.3

(4) FSAR Section 14.3.5

(5) FSAR Section 1.2

(6) FSAR Section 9.3

(7) FSAR Section 14.3

(8) FSAR Section 9.4

(9) FSAR Section 14.3.5

(10) Attachment B to Application for Amendment dated August 30, 1982

3.6.3 **Containment Isolation Boundaries**

3.6.3.1 With one or more of the isolation boundaries specified in Table 3.6-1 inoperable, maintain at least one isolation boundary operable in each affected penetration that is open and either:

a. Restore the inoperable boundary to operable status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d. Be in at least hot shutdown within the next 6 hours and in cold shutdown within the following 30 hours.

Isolation boundaries are inoperable from a leakage standpoint if the leakage is greater than that allowed by 10 CFR 50 Appendix J.

3.6.3.2 Boundaries other than those specified in Table 3.6-1 may be substituted on an interim basis for those listed on the table providing the following conditions are met:

a. The boundary to be substituted is demonstrated to meet the Type B or C leakage requirements of 10 CFR 50 Appendix J.

b. The boundary to be substituted is maintained closed or is demonstrated to close on all signals that close the boundary it replaces.

c. Interim boundaries to be used for more than a 72 hour period are seismic class I.

d. No more than one interim boundary may be substituted on a single line unless at least one of the interim boundaries is seismic class I.

TABLE 4.1-3

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL TEST
1.	Pressurizer Water Level*	See Table 4.1-1	See Table 4.1-1	NA
2.	Auxiliary Feedwater Flow Rate****	M	R	NA
3.	Reactor Coolant System Subcooling Margin Monitor**	M	R	NA
4.	PORV Position Indicator*** (Primary Detector)	M	NA	R
5.	PORV Position Indicator*** (Thermocouples-Backup Detector)	M	R	NA
6.	PORV Block Valve Position Indicator*	M	NA	R
7.	Safety Valve Position Indicator*** (Primary Detector)	M	R	NA
8.	Safety Valve Position Indicator*** (Thermocouples-Backup Detector)	M	R	NA

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*Emergency Power Supply Requirements for Pressurizer Level Indicators - NUREG 0578 Item 2.1.1, Reference 1
**Instrumentation for Detection of Inadequate Core Cooling - NUREG 0578 Item 2.1.3.b, Reference 2
***Direct Indication of Power Operated Relief Valve and Safety Valve Position - NUREG 0578 Item 2.1.3.a, References 1 and 2
****Auxiliary Feedwater Flow Indication to Steam Generator NUREG 0578 Item 2.1.7.b, Reference 2

References

1. RGE letter dated December 28, 1979 from L. D. White, Jr. to Dennis Ziemann, USNRC
2. RGE letter dated November 19, 1979 from L. D. White, Jr. to Dennis Ziemann, USNRC

4.3.3 Check Valves

4.3.3.1 Leakage testing of check valves 853A, 853B, 867A, 867B, 878G and 878J shall be accomplished prior to criticality, except for low power physics testing, following (1) refueling, (2) cold shutdown, and (3) maintenance, repair or replacement work on the valves. Leakage may be measured indirectly from the performance of pressure indicators, system volume measurements or by direct measurement. Minimum test differential pressure shall be greater than 150 psid. See 4.3.3.4 for allowable leakage rates.

4.3.3.2 Check valves 878G and 878J will be tested for leakage following each safety injection flow test. Minimum test differential pressure shall be greater than 150 psid. See 4.3.3.4 for allowable leakage rates.

4.3.3.3 Motor-operated valves 878A and 878C and check valves 877A, 877B, 878F, and 878H shall be tested to individually assure integrity of at least two of the three pressure boundaries in each hot leg high-head safety injection path after any opening of either motor-operated valve and at a minimum, once every 40 months. Opening of the motor-operated valves, and testing, are to be performed at a test pressure less than that of the lowest design pressure of any portion of the high-head safety injection system which may be pressurized during the test. Minimum test differential pressure shall be greater than 150 psid. See 4.3.3.4 for allowable leakage rates.

4.3.3.4 Allowable check valve leakage rates are as follows:

a. Leakage rates less than or equal to 1.0 gpm are considered acceptable.

b. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered acceptable if the latest measured rate has not exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.

c. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered unacceptable if the latest measured rate exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.

d. Leakage rates greater than 5.0 gpm are considered unacceptable.

b. Acceptable levels of performance for the pumps shall be that the pumps start, operate, and develop the minimum discharge pressure listed in the table below:

PUMPS	RECYCLE FLOW RATE	DISCHARGE PRESSURE
Containment Spray Pumps	35 gpm	240 psig
Residual Heat Removal Pumps	200 gpm	140 psig
Safety Injection Pumps	50 gpm	1420 psig

4.5.2.2 Valves

a. Valve testing shall be performed in accordance with Appendix C to the Ginna Station Quality Assurance Manual, "Pump and Valve Testing Program."

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4.5.2.3 <u>Air Filtration System</u>

4.5.2.3.1 At least once every 18 months or after every 720 hours of charcoal filtration system operation since the last test, or following painting, fire or chemical release in any ventilation zone communicating with the system, the post accident charcoal system shall have the following conditions demonstrated.

a. The pressure drop across the charcoal adsorber bank is less than 3 inches of water at design flow rate (±10%).

b. In place Freon testing, under ambient conditions, shall show at least 99% removal.

c. The iodine removal efficiency of at least one charcoal filter cell shall be measured. The filter cell to be tested shall be selected randomly from those cells with the longest in-bank residence time. The minimum acceptable value for filter efficiency is 90% for removal of methyl iodide when tested at at least 286°F and 95% RH and at 1.5 to 2.0 mg/m^3 loading with tagged CH_3I.

Attachment B

The proposed Technical Specification changes effect (1) exercising tests of certain valves during operation, (2) containment isolation boundaries, (3) leakage testing requirements for certain check valves, and (4) the format of some specifications to correct typographical errors and to include references. Each change is discussed below.

Exercising Tests of Certain Valves

Section 1.1.6 of the Safety Evaluation Report accompanying Dennis Crutchfield's May 26, 1981 letter stated that some plants have technical specifications which allow continued reactor operation for a limited time with one train of a safeguards system inoperable provided the redundant train is tested to assure operability. However, when one train of a redundant system, such as in the ECCS, is inoperable, nonredundant valves in the remaining train should not be cycled if their failure in a non-safe position would cause a loss of total system function. For example, if during power operation one train of safety injection is inoperable because of valve failure, motor operated valves in the remaining train should not be cycled if motor failure during the tests may leave the second flow path inoperable. A review of the Ginna Technical Specifications to consider the need to change the specifications to preclude such testing resulted in a conclusion that specifications for the high head safety injection (SI), low pressure safety injection (LPSI), containment spray (CS) and containment fan cooler charcoal filter (CF) systems should be changed. Only limited valve cycling should be performed in these systems if other valves in the systems are found to be inoperable.

The SI system is normally aligned for injection with all critical valves secured in the proper position except for those valves which must change position during the accident. The valves which must remain unsecured are 826 A, B, C and D, 825 A and B, 897, 898, 871 A and B, 1815 A and B and 896 A and B.

Motor operated valves (MOVs) 826 A and B are in series in one of the redundant flow paths from the Boric Acid Tanks (BASTs) to the SI pump suction header; MOVs 826 C and D are in the other flow path. When aligned for power operation one valve in each pair is open and one is closed. One of the flow paths must be opened for suction to the SI pumps until the BAST is exhausted and then both paths must be closed to prevent backflow through the tanks to atmosphere when the Refueling Water Storage Tank (RWST) supplies the SI pump. Cycling of the remaining valves when one of the four valves has failed may, in some cases, result in configurations such that either suction from the BAST could be inhibited or backflow through the BAST will not be prevented in the event that a second valve fails.

If one of the 826 valves is inoperable and closed, the opposite flow path should be demonstrated to be operable by cycling the closed valve in that path. If the cycled valve fails open during the test another valve remains which can be used to close this path. If one of the 826 valves is inoperable and open, closing either the failed valve or the series valves in that flow path will assure that the RWST water will not backflow through the BAST and be lost to the floor. Normal ASME Section XI valve testing provides adequate assurance that the redundant valve train will function properly. The quarterly stroking requirement of the valve ISI program is appropriate and should be completed provided that there are no preexisting failures. Except as specified above no other valve cycling should be performed.

MOVs 825 A and B are in parallel flow paths from the RWST to the SI pump suction. The valves are normally closed and are opened during the injection phase of an accident after the BAST is emptied. If one of the valves fails open during a cycling test, suction from the BAST will be inhibited by the higher head RWST. The cold/refueling (C/R) stroking requirement of the valve ISI program is appropriate. Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one valve fails during testing. Further, if a valve is determined to be failed closed at other than C/R condition, no valve cycling should be performed due to the possibility of that valve failing open.

Air operated valves (AOVs) 897 and 898 are series valves in the recirculation line from the SI pumps to the RWST. The valves are normally open but are closed during the recirculation phase of a LOCA to prevent recirculation of containment sump water to the RWST. The valves should be open after safety injection actuation at least until RCS pressure is below the shutoff head of the pumps. If one of the valves fails in the closed position during the cycling test then recirculation to the RWST would be prevented. Thus, the C/R stroking requirement of the valve ISI program is appropriate. Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one fails during testing. Further, if a valve is determined to be failed open at other than C/R conditions, no valve cycling should be performed due to the possibility of that valve failing closed.

MOVs 871 A and B are normally open valves in the discharge paths from SI pump 1C which remain open if all three SI pumps start or which selectively close to direct the flow from the C pump into the discharge path of the A or B pump if one of them fails to start. If either MOV 871 A or B fails, cycling the other valve of the pair will not assure that the C pump flow will be directed to the proper path. It is best to assure that delivery is maintained from the C pump to the cold leg injection paths rather than risk closing a path by cycling the 871 valves. Thus, the C/R stroking requirement of the valve ISI program is appropriate.

Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one fails during testing. Further, if a valve is determined to be failed open at other than C/R conditions, no valve cycling should be performed due to the possibility of that valve failing closed.

MOVs 1815 A and B are series valves in the suction line to the C SI pump. These valves must be open for the injection phase following a LOCA and in most cases will remain open during the recirculation phase. These valves may be closed only under unusual circumstances during recirculation when high head injection through the C pump is required. If one of the valves fails closed then the C SI pump becomes inoperable. Thus, the C/R stroking requirement of the valve ISI program is appropriate. Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one fails during testing. Further, if a valve is determined to be failed open at other than C/R conditions, no valve cycling should be performed due to the possibility of that valve failing closed.

MOVs 896 A and B are series valves in the suction line from the RWST to the SI and CS pumps. They are required to be open during the injection phase following a LOCA but are closed during recirculation to prevent containment sump water from being pumped back to the RWST when it is being directed to the SI and CS pump suction lines. Failure of either 896 A or B in a closed position during a cycling test will disable SI and CS during the injection phase. Thus, the C/R stroking requirement of the valve ISI program is appropriate. Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one fails during testing. Further, if a valve is determined to be failed open at other than C/R conditions, no valve cycling should be performed due to the possibility of that valve failing closed. No cycling should be performed.

Therefore, SI valves 825 A and B, 897, 898, 871 A and B, 1815 A and B, and 896 A and B should only be tested at C/R conditions and should not be cycled to test their operability if the redundant valve is already inoperable. A verification of system alignment is appropriate. Only limited cycling of valves 826 A-D should be performed if one of the valves is inoperable.

The LPSI system is normally aligned for the injection mode of operation with critical valves which do not change position following a LOCA secured in the proper position. Valves which remain unsecured to allow a change of position following a LOCA are 850 A and B, 704 A and B, 857 A, B and C, 852 A and B, and 856.

MOVs 850 A and B are normally closed valves in the lines from the containment sump to the RHR (or LPSI) pumps. MOVs 851 A and B are normally open valves in the containment sump which are also in the recirculation paths to the RHR pumps. The breakers for the 851 valves are secured in the off position. If both sets

of these valves (850 A and B and 851 A and B) are open during the injection phase, water from the RWST can drain directly to the containment sump, bypassing the reactor. Either 850 A or 850 B must be opened to begin the recirculation phase. If either 850 A or B is inoperable and closed, the opposite flow path can be demonstrated to be operable by cycling the redundant 850 valve. However, to do so requires closing the 851 valve in that path to prevent flow from the RWST to the sump. If the 851 valve then fails, both paths are blocked and recirculation from the sump is prevented. If one of the 850 valves is inoperable and open, the 851 valve in that flow path should be closed. Because the 851 valves are not qualified to operate in the post accident containment environment, this flow path is then considered to be inoperable. Since the redundant flow path cannot be tested without also closing the redundant 851 valve in the sump, cycling of the operable 850 valve should not be performed. Thus, test cycling of valves should not be performed with one of the 850 valves inoperable open or closed.

Since the 851 valves are not qualified to operate in the post accident containment environment, they are not relied upon to perform a post accident function. (See RGE letter dated August 30, 1982 from John E. Maier to Dennis M. Crutchfield, USNRC) Operability of these valves and testing of the valves is not required.

MOV 856 and check valve 854 are in series in the suction line from the RWST to the RHR pumps. MOV 856 is normally open and aligned for the injection phase following a LOCA. It also remains open during the recirculation phase. The flow path from the containment sump to the RWST is isolated by check valve 854 and by closing the 704 A and B valves during the recirculation phase to prevent sump water from being forced back to the RWST. The 856 valve remains open because it is deenergized at the motor control center to prevent inadvertent closure before the recirculation phase following a LOCA. Because there is no redundant path from the RWST, the 856 valve should not be cycled closed during plant operation to check its operability. A failure in the closed position will defeat the injection function. A failure in the open position can be accommodated by the series check valve.

MOVs 704 A and B are in the suction piping of the RHR pumps and must be open for water to flow from the RWST to the pumps. The valves are closed during recirculation to block flow to the RWST. If a 704 valve is failed open, cycling the redundant valve will not establish that sump flow to the RWST can be blocked. Cycling the redundant valve may only prohibit flow from the RWST for injection flow and therefore serves no useful purpose. If one of the 704 valves is failed close, cycling the other valve may prohibit all injection flow if a second failure occurs during the cycling. No cycling of the 704 valves should be performed with a previous failure in the pair.

A potentially more effective way of providing suction to the RHR pumps from both the RWST and the sump exists if a modification is made to the plant. If AC motive power is supplied to MOV 856 but DC control power can be removed and reinstated from the control room, then MOV 856 can be used along with check valve 854 to prevent backflow to the RWST. Using 856 to prevent backflow will allow the 704 valves to remain open and give more versatility in the flow paths from the containment sump. A modification to the 856 control circuitry similar to that previously approved for the 896 valves will be considered. If such a modification is installed, the 856 valve should be open at all times except during the recirculation phase and the valve should not be cycled during power operation. Following modification of the 856 valve circuitry, the 704 valves also need not be cycled during operation. They will no longer be required to change position following a LOCA but may be used to separate the sump suction lines if desired. Because they are not required, cycling of the valves during operation is not required.

MOVs 852 A and B are each in series with an 853 check valve in the injection lines to the reactor vessel in the LPSI system. The 852 valves are normally closed and are the second valves at the high pressure/low pressure system interface. The valves are opened only on a safety injection signal. The cold/refueling (C/R) stroking requirement of the valve ISI program is appropriate. Since the SI system is not required to be operable during C/R conditions, cycling of the redundant valve is not required if one valve fails during testing. Further, if a valve is determined to be failed closed at other than C/R condition, no valve cycling should be performed due to the possibility of that valve failing open. If the valve were open, then a challenge to the high pressure/low pressure interface will result from valve cycling and the cycling should not be performed.

MOVs 857 A, B and C are in the lines between the RHR pumps and the SI pumps and are normally closed. These lines provide a high head recirculation capability with the RHR pumps drawing water from the sump and supplying the SI pumps. If an 857 valve is open during the injection phase, delivery to the reactor injection nozzles from the RHR pumps may be degraded. Cycling an additional valve open with one valve already inoperable and open will serve no useful purpose. If one of the 857 valves is inoperable and closed, total system function is not lost. The SI pumps may be supplied during recirculation through the redundant 857 valve path or through another line containing valves 1815 and 1816. (Manual operator action is required to use the latter flow path.). Greater safety is achieved by assuring proper flow during the injection phase. Several means exist to supply water to the SI pumps for high head recirculation or to depressurize the primary system to use the LPSI mode of recirculation. Thus, to assure proper functioning of the LPSI system during the injection mode, no cycling of the 857 valves should be performed.

AOVs 624 and 625 are air operated valves in the discharge lines of the RHR pumps which are used to control RHR flow when the sytem is used in the residual heat removal mode. Previously these valves were stroked quarterly, but because a failure in the closed position can degrade LPSI system function, quarterly stroking of these valves will not be performed.

Therefore, LPSI valves 850 A and B, 851 A and B, 857 A, B and C, 852 A and B, 856 and 704 A and B should not be cycled to test their operability if the redundant valve is already inoperable. A verification of system alignment is appropriate.

The containment spray system has 3 pairs of normally closed valves with one valve in each pair required to open for full system function. MOVs 860 A and B are in the discharge path from containment spray pump A; MOVs 860 C and D are in the discharge path from pump B. If any of these valves is inoperable and closed, the redundant valve should be cycled to assure the flow path operability. If one of the valves is inoperable and open, flow path availability is assured and no valve cycling is required. In similar fashion, either MOV 836 A or MOV 836 B must open upon an actuation signal to provide flow from the NaOH tank to the containment spray eductors. If one of the valves is inoperable and closed, the other valve should be cycled to demonstrate flow path availability. If one valve is inoperable and open no valve cycling is required.

The two charcoal filters in containment are normally not in service. The inlet and outlet valves (5871, 5872, 5874, and 5876) for each filter are closed and the bypass valves (5873 and 5875) are open. Each of the three valves for each filter must change position in order for the filters to be properly put in service. No other system function will be defeated by cycling of the redundant filter's valves. Therefore, if any of the valves for one of the filters is inoperable and not positioned to direct flow through the filter, the valves of the redundant filter should be cycled to demonstrate operability of the filter system.

Therefore, if any of valves 860 A, B, C and D, 836 A and B or 5871, 5872, 5873, 5874, 5875 or 5876 are inoperable and positioned so as not to fulfill the safeguard function, the valve(s) providing a duplicate function should be cycled to demonstrate operability.

Containment Isolation Boundaries

Specification of each containment isolation boundary in Table 3.6-1 allows for little versatility in plant operation if a specified boundary is inoperable. The proposed changes to specification 3.6.3 will allow substitution of other barriers on an interim basis provided that the new barrier can provide the same function as the specified barrier. The most important function is that the boundary prevent leakage, so each substituted boundary will be tested to demonstrate compliance with the requirements of 10 CFR 50 Appendix J. The substituted boundary must provide the

same automatic isolation capability or the boundary must be closed.

The most likely cause of boundary failure is a failure of an active piece of equipment to actuate properly. The probability of a seismic event which occurs concurrent with an event requiring containment isolation is low. Therefore, it is acceptable to allow a containment boundary to be provided by a nonseismic barrier for a limited period of time. Seventy-two hours is deemed to be an acceptably short period of time. To provide assurance that at least one boundary in each penetration will withstand a seismic event substitution of only one nonseismic boundary is allowed.

The conditions imposed upon substitution boundaries are sufficient to assure proper containment isolation and, at the same time, to limit the potential for plant transients caused by requiring a plant shutdown if a containment boundary identified in the Technical Specification is inoperable.

Leakage Testing Requirements for Certain Check Valves

Specification 4.3.3.1 has been revised to allow low power physics testing following refueling to be performed concurrent with leakage testing of certain SI and LPSI check valves. Low power physics testing will add little to the core fission product inventory and will have an insignificant effect upon decay heat removal requirements. The intent of the original specification, which was to test these check valves under conditions similar to those during power operation, will be met. Therefore, the specification change will allow for time savings by performing certain independent tests concurrently, rather than sequentially, but the change does not substantially alter plant temperatures, pressures or radioactive source terms and thus poses no significant change to public health or safety.

Format Changes

Table 4.1-3 has been revised to remove ambiguity in the frequency of auxiliary feedwater flow rate channel checks. The table now indicates monthly checks rather than referencing another section of Technical Specifications which requires monthly testing. References have been added to the notes on this page.

Changes to Reflect Procedure and Hardware Changes

Amendment No. 7, issued May 15, 1975, provided Technical Specification requirements which were in effect only until certain modifications were completed. It also required that procedure changes be made prior to startup from the 1975 refueling outage. The modifications were completed shortly after startup in 1975 and the procedure changes were completed prior to startup. Thus, these Technical Specifications may be deleted.

An NRC Order dated April 20, 1981 regarding valve testing, provided Technical Specifications regarding the timing of the initial tests. These tests were completed in 1981. Thus, this Technical Specification may be deleted.

Refueling Water Storage Tank Inoperability

The Technical Specifications do not provide instructions on actions to be taken if the refueling water storage tank is inoperable. The proposed change, which is consistent with the NRC's Standard Technical Specifications, would provide the appropriate directions.

Valve Surveillance

The valve surveillance specified in Specification 4.5.2.2 is redundant to and inconsistent with the more recently developed requirements in the "Pump and Valve Test Program." Thus, the specification is revised to incorporate by reference the surveillance requirements in the "Pump and Valve Test Program."