II. Markup of Proposed Changes

See attached markup of proposed changes to Technical Specifications. Each line item in Generic Letter 93-05 is separated and individually identified.

1. Control Rod Movement Test (4.2)

LIMITING CONDITION FOR OPERATION

3.1.3.1 ACTION b.3 (Continued)

c) A power distribution map is obtained from the movable incore detectors and $F_Q(Z)$ and $F^N_{\Delta H}$ are verified to be within their limits within 72 hours; and

d) The THERMAL POWER level is reduced to less than or equal to 75% of RATED THERMAL POWER within the next hour and within the following 4 hours the High Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER.

c. With more than one rod trippable but inoperable due to causes other than addressed by ACTION a. above, POWER OPERATION may continue provided that:

1. Within 1 hour, the remainder of the rods in the bank(s) with the inoperable rods are aligned to within ± 12 steps of the inoperable rods while maintaining the rod sequence and insertion limits of Specification 3.1.3.6. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, and

2. The inoperable rods are restored to OPERABLE status within 72 hours.

d. With more than one rod misaligned from its group step counter demand height by more than ± 12 steps (indicated position), be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each full-length rod shall be determined to be within the group demand limit by verifying the individual rod positions at least once per 12 hours, except during time intervals when the rod position deviation monitor is inoperable; then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full-length rod not fully inserted in the core shall be determined to be OPERABLE by movement of at least 10 steps in any one direction at least once per ~~31~~ 92 days.

2. Hydrogen Monitor Surveillance (5.4)

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of a CHANNEL CHECK at least once per 12 hours, an ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days, and at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gas containing:

a. One volume percent hydrogen, balance nitrogen; and

b. Four volume percent hydrogen, balance nitrogen.

3. Radiation Monitors (5.14)

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
3. Containment Isolation								
a. Phase "A" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
b. Phase "B" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A	1, 2, 3, 4
2) Automatic Actuation Logic Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Containment Pressure-Hi-3	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
c. Containment Ventilation Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment On Line Purge Radioactivity-High	S	R	~~M~~ Q (2)	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Containment				
a. Containment - Post LOCA - Area Monitor	S	R	M	All
b. RCS Leakage Detection				
1) Particulate Radioactivity	S	R	M	1, 2, 3, 4
2) Gaseous Radioactivity	S	R	M	1, 2, 3, 4
2. Containment Ventilation Isolation				
a. On Line Purge Monitor	S	R	M	1, 2, 3, 4
b. Manipulator Crane Area Monitor	S	R	M	6#
3. Main Steam Line	S	R	M	1, 2, 3, 4
4. Fuel Storage Pool Areas				
a. Radioactivity-High-Gaseous Radioactivity	S	R	M	*
5. Control Room Isolation				
a. Air Intake Radiation Level				
1) East Air Intake	S	R	M	All
2) West Air Intake	S	R	M	All
6. Primary Component Cooling Water				
a. Loop A	S	R	M	All
b. Loop B	S	R	M	All

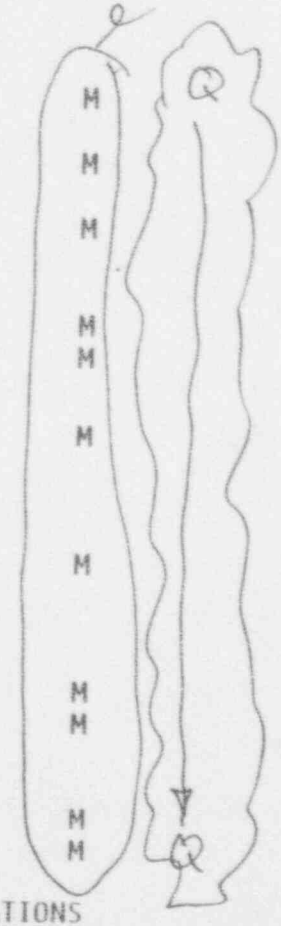

TABLE NOTATIONS

* With irradiated fuel in the fuel storage pool areas.
# During CORE ALTERATIONS or movement of irradiated fuel within the containment.

4. Reactor Coolant System Isolation Valves (6.1)

SURVEILLANCE REQUIREMENTS

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. At least once per 18 months, 7 days

b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 72 hours or more and if leakage testing has not been performed in the previous 9 months,

c. Prior to returning the valve to service following maintenance, repair, or replacement work on the valve, and

d. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve.

e. As outlined in the ASME Code, Section XI, paragraph IWV-3427(b).

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

5. High Point Vent Surveillance Testing (6.3)

3/4.4.11 REACTOR COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one Reactor Coolant System vent path consisting of one vent valve and one block valve powered from emergency busses shall be OPERABLE and closed* at each of the following locations:

a. Reactor vessel head, and

b. Pressurizer steam space.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one of the above Reactor Coolant System vent paths inoperable, STARTUP and/or POWER OPERATION may continue provided the inoperable vent path is maintained closed with power removed from the valve actuator of all the vent valves and block valves in the inoperable vent path; restore the inoperable vent path to OPERABLE status within 30 days, or, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With both Reactor Coolant System vent paths inoperable; maintain the inoperable vent path closed with power removed from the valve actuators of all the vent valves and block valves in the inoperable vent paths, and restore at least one of the vent paths to OPERABLE status within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each Reactor Coolant System vent path block valve not required to be closed by ACTION a. or b., above, shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel from the control room.

4.4.11.2 Each Reactor Coolant System vent path shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying all manual isolation valves in each vent path are locked in the open position,

COLD SHUTDOWN, if not performed within the previous 92 days,

*For an OPERABLE vent path using a power-operated relief valve (PORV) as the vent path, the PORV block valve is not required to be closed.

6. Pressurizer Heater (6.6)

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3 The pressurizer shall be OPERABLE with a water volume of less than or equal to 92% of pressurizer level (1656 cubic feet), and at least two groups of pressurizer heaters each having a capacity of at least 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With only one group of pressurizer heaters OPERABLE, restore at least two groups to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the Reactor Trip System breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The pressurizer water volume shall be determined to be within its limit at least once per 12 hours.

4.4.3.2 The capacity of each of the above required groups of pressurizer heaters shall be verified by energizing the heaters from the emergency power supply and measuring circuit current at least once per 92 days. each refueling interval.

7. Surveillance of Boron Concentration in the Accumulators (7.1)

SURVEILLANCE REQUIREMENTS

4.5.1.1.1 (Continued)

2) Verifying that each accumulator isolation valve is open.

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume by verifying the boron concentration of the accumulator solution; and

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is disconnected.

d. At least once per 18 months by verifying that each accumulator isolation valve opens automatically under each of the following conditions:

1) When an actual or a simulated RCS pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) Setpoint, and

2) Upon receipt of a Safety Injection test signal.

4.5.1.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE:

a. At least once per 31 days by the performance of an ANALOG CHANNEL OPERATIONAL TEST, and

b. At least once per 18 months by the performance of a CHANNEL CALIBRATION.

b. By verifying the boron concentration of the accumulator solution under the following conditions:

1) At least once per 31 days,

2) Within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume. This surveillance is not required when the volume increase makeup source is the RWST and the RWST has not been diluted since verifying that the RWST boron concentration is equal to or greater than the accumulator boron concentration limit.

8. Accumulator Water Level and Pressure Channel Surveillance (7.4)

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

HOT STANDBY, STARTUP, AND POWER OPERATION

LIMITING CONDITION FOR OPERATION

3.5.1.1 Each Reactor Coolant System (RCS) accumulator shall be OPERABLE with:

a. The isolation valve open and power removed,

b. A contained borated water volume of between 6121 and 6596 gallons,

c. A boron concentration of between 1900 and 2100 ppm, and

d. A nitrogen cover-pressure of between 585 and 664 psig.

APPLICABILITY: MODES 1, 2, and 3*.

ACTION:

a. With one accumulator inoperable, except as a result of a closed isolation valve, restore the inoperable accumulator to OPERABLE status within 8 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

b. With one accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in at least HOT STANDBY within 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

c. With one pressure or water level channel inoperable per accumulator, return the inoperable channel to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With two pressure channels or two water level channels inoperable per accumulator, immediately declare the affected accumulator(s) inoperable.

SURVEILLANCE REQUIREMENTS

4.5.1.1 Each accumulator shall be demonstrated OPERABLE:

a. At least once per 24 hours by:

1) Verifying the contained borated water volume and nitrogen cover-pressure in the tanks, and

*Pressurizer pressure above 1000 psig.

SURVEILLANCE REQUIREMENTS

4.5.1.1.1 (Continued)

2) Verifying that each accumulator isolation valve is open.

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume by verifying the boron concentration of the accumulator solution; and

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is disconnected.

d. At least once per 18 months by verifying that each accumulator isolation valve opens automatically under each of the following conditions:

1) When an actual or a simulated RCS pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) Setpoint, and

2) Upon receipt of a Safety Injection test signal.

4.5.1.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE:

a. At least once per 31 days by the performance of an ANALOG CHANNEL OPERATIONAL TEST, and

b. At least once per 18 months by the performance of a CHANNEL CALIBRATION.

9. Visual Inspection of the Containment Sump (7.5)

ECCS SUBSYSTEMS - T_{avg} GREATER THAN OR EQUAL TO 350°F

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

a. At least once per 24 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

Valve Number	Valve Function	Valve Position
SI-V-3	Accumulator Isolation	Open*
SI-V-17	Accumulator Isolation	Open*
SI-V-32	Accumulator Isolation	Open*
SI-V-47	Accumulator Isolation	Open*
SI-V-114	SI Pump to Cold-Leg Isolation	Open
RH-V-14	RHR Pump to Cold-Leg Isolation	Open
RH-V-26	RHR Pump to Cold-Leg Isolation	Open
RH-V-32	RHR to Hot-Leg Isolation	Closed
RH-V-70	RHR to Hot-Leg Isolation	Closed
SI-V-77	SI to Hot-Leg Isolation	Closed
SI-V-102	SI to Hot-Leg Isolation	Closed

b. At least once per 31 days by:

1) Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, and

2) Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suctions during LOCA conditions. This visual inspection shall be performed:

1) For ~~all accessible~~ primary areas of the containment prior to establishing PRIMARY CONTAINMENT INTEGRITY, and

2) ~~Of the areas affected within containment at the completion of each containment entry when PRIMARY CONTAINMENT INTEGRITY is established.~~ At least once daily of the areas affected within containment by containment entry and during the final entry when primary CONTAINMENT INTEGRITY is established

*Pressurizer pressure above 1000 psig.

10. Containment Spray System (8.1)

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST* and automatically transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position;

b. By verifying, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 262 psi when tested pursuant to Specification 4.0.5;

c. At least once per 18 months during shutdown, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure-Hi-3 test signal, and

2) Verifying that each spray pump starts automatically on a Containment Pressure-Hi-3 test signal.

d. At least once per (5) (10) years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

*In MODE 4, when the Residual Heat Removal System is in operation, an OPERABLE flow path is one that is capable of taking suction from the refueling water storage tank upon being manually realigned.

11. Hydrogen Recombiner (8.5)

CONTAINMENT SYSTEMS

COMBUSTIBLE GAS CONTROL

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one Hydrogen Recombiner System inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE

a. ~~At least once per 6 months by~~ verifying during a Hydrogen Recombiner System functional test that the minimum heater sheath temperature increases to greater than or equal to 850°F within 90 minutes. Upon reaching 850°F, increase the power setting to maximum power for 2 minutes and verify that the power meter reads greater than or equal to 65 kW; and

b. At least once ~~per 18 months~~ each refueling interval by:

b. 1) Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits,

c. 2) Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiner enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and

d. 3) Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

12. Auxiliary Feedwater Pump and System Testing (9.1)

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. One motor-driven emergency feedwater pump, and one startup feedwater pump capable of being powered from an emergency bus and capable of being aligned to the dedicated water volume in the condensate storage tank, and

b. One steam turbine-driven emergency feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.*

ACTION:

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With two emergency feedwater pumps inoperable, restore at least one emergency feedwater pump to OPERABLE status within 12 hours and restore both emergency feedwater pumps to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one emergency feedwater pump and the startup feedwater pump inoperable, restore both emergency feedwater pumps to OPERABLE status within 24 hours and all three pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At least once per 31 days ~~on a STAGGERED TEST BASIS~~ by:

1) Verifying that the motor-driven emergency feedwater pump develops a discharge pressure of greater than or equal to 1460 psig at a flow of greater than or equal to 270 gpm;

move to b.

*Not required in Mode 3 until initial criticality is achieved.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1a. (Continued)

2) Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1460 psig at a flow of greater than or equal to 270 gpm when the secondary steam supply pressure is greater than 500 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3;

3) Verifying that the startup feedwater pump develops a discharge pressure of greater than or equal to 1375 psig at a flow of greater than or equal to 425 gpm;

1) ~~4)~~ Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position;

2) ~~5)~~ Verifying that each automatic valve in the flow path is in the fully open position whenever the Auxiliary Feedwater System is placed in automatic control or when above 10% RATED THERMAL POWER; and

3) ~~6)~~ Verifying that valves FW-156 and FW-163 are OPERABLE for alignment of the startup feedwater pump to the emergency feedwater header.

c. ~~b.~~ At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Emergency Feedwater System Actuation test signal;

2) Verifying that each emergency feedwater pump starts as designed automatically upon receipt of an Emergency Feedwater Actuation System test signal;

3) Verifying that with all manual actions, including power source and valve alignment, the startup feedwater pump starts within the required elapsed time; and

4) Verifying that each emergency feedwater control valve closes on receipt of a high flow test signal.

b. At least once per 92 days on a STAGGERED TEST BASIS by:

1)
2)
3)

13. Emergency Diesel Generator Surveillance Requirements (10.1)

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System, and

b. Two separate and independent diesel generators, each with:

1) A separate day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons),

2) A separate Fuel Storage System containing a minimum volume of 60,000 gallons of fuel,

3) A separate fuel transfer pump,

4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and

5) Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With ~~either~~ an offsite circuit ~~or diesel generator~~ of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter ~~and Specification 4.8.1.1.2a.5) within 24 hours;~~ restore at least two offsite circuits to OPERABLE status within 24 hours ~~and two diesel generators to OPERABLE status within 72 hours~~ or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

INSERT b

~~b.~~ c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter ~~and Specification 4.8.1.1.2a.5) within 24 hours;~~ restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits to OPERABLE status within 24 hours and two

INSERT C

LIMITING CONDITION FOR OPERATION

3.8.1.1 (Continued)

ACTION:

diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With one diesel generator inoperable in addition to ACTION a. or b. above, verify that:

1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and

2. When in MODE 1, 2, or 3, the steam-driven emergency feedwater pump is OPERABLE.

If these conditions are not satisfied within 2 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing the requirements of Specification 4.8.1.1.2a.5) within 1 hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 24 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert b

b. With a diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.* Restore at least two diesel generators to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert c

Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.*

---

*The OPERABILITY of the remaining diesel generator need not be verified if the diesel generator became inoperable due to:

1. Preplanned preventive maintenance or testing,

2. An inoperable support system with no potential common mode failure for the remaining diesel generator, or

3. An independently testable component with no potential common mode failure for the remaining diesel generator.

III. Retype of Proposed Changes

See attached retype of proposed changes to Technical Specifications. The attached retype reflects the currently issued version of Technical Specifications. Pending Technical Specifications changes or Technical Specification changes issued subsequent to this submittal are not reflected in the enclosed retype. The enclosed retype should be checked for continuity with the current Technical Specifications prior to issuance.

Revision bars are provided in the right-hand margin to designate a change in the text. No revision bars are utilized when the page is changed solely to accommodate the shifting of text due to additions or deletions.

The attached retype is presented in page order. Some of the recommended changes effect the same specification. Therefore, some pages are being revised for two line item improvements.

LIMITING CONDITION FOR OPERATION

3.1.3.1 ACTION b.3 (Continued)

c) A power distribution map is obtained from the movable incore detectors and $F_Q(Z)$ and $F^N_{\Delta H}$ are verified to be within their limits within 72 hours; and

d) The THERMAL POWER level is reduced to less than or equal to 75% of RATED THERMAL POWER within the next hour and within the following 4 hours the High Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER.

c. With more than one rod trippable but inoperable due to causes other than addressed by ACTION a. above, POWER OPERATION may continue provided that:

1. Within 1 hour, the remainder of the rods in the bank(s) with the inoperable rods are aligned to within ± 12 steps of the inoperable rods while maintaining the rod sequence and insertion limits of Specification 3.1.3.6. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, and

2. The inoperable rods are restored to OPERABLE status within 72 hours.

d. With more than one rod misaligned from its group step counter demand height by more than ± 12 steps (indicated position), be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each full-length rod shall be determined to be within the group demand limit by verifying the individual rod positions at least once per 12 hours, except during time intervals when the rod position deviation monitor is inoperable; then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full-length rod not fully inserted in the core shall be determined to be OPERABLE by movement of at least 10 steps in any one direction at least once per 92 days.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
3. Containment Isolation								
a. Phase "A" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
b. Phase "B" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Containment Pressure-Hi-3	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
c. Containment Ventilation Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment On Line Purge Radioactivity- High	S	R	Q(2)	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Containment				
a. Containment - Post LOCA - Area Monitor	S	R	Q	All
b. RCS Leakage Detection				
1) Particulate Radioactivity	S	R	Q	1, 2, 3, 4
2) Gaseous Radioactivity	S	R	Q	1, 2, 3, 4
2. Containment Ventilation Isolation				
a. On Line Purge Monitor	S	R	Q	1, 2, 3, 4
b. Manipulator Crane Area Monitor	S	R	Q	6#
3. Main Steam Line	S	R	Q	1, 2, 3, 4
4. Fuel Storage Pool Areas				
a. Radioactivity-High-Gaseous Radioactivity	S	R	Q	*
5. Control Room Isolation				
a. Air Intake Radiation Level				
1) East Air Intake	S	R	Q	All
2) West Air Intake	S	R	Q	All
6. Primary Component Cooling Water				
a. Loop A	S	R	Q	All
b. Loop B	S	R	Q	All

TABLE NOTATIONS

* With irradiated fuel in the fuel storage pool areas.
# During CORE ALTERNATIONS or movement of irradiated fuel within the containment.

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3 The pressurizer shall be OPERABLE with a water volume of less than or equal to 92% of pressurizer level (1656 cubic feet), and at least two groups of pressurizer heaters each having a capacity of at least 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With only one group of pressurizer heaters OPERABLE, restore at least two groups to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the Reactor Trip System breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The pressurizer water volume shall be determined to be within its limit at least once per 12 hours.

4.4.3.2 The capacity of each of the above required groups of pressurizer heaters shall be verified by energizing the heaters from the emergency power supply and measuring circuit current at least once each refueling interval.

SURVEILLANCE REQUIREMENTS

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. At least once per 18 months,

b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months,

c. Prior to returning the valve to service following maintenance, repair, or replacement work on the valve, and

d. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve.

e. As outlined in the ASME Code, Section XI, paragraph IWV-3427(b).

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

3/4.4.11 REACTOR COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one Reactor Coolant System vent path consisting of one vent valve and one block valve powered from emergency busses shall be OPERABLE and closed* at each of the following locations:

a. Reactor vessel head, and

b. Pressurizer steam space.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one of the above Reactor Coolant System vent paths inoperable, STARTUP and/or POWER OPERATION may continue provided the inoperable vent path is maintained closed with power removed from the valve actuator of all the vent valves and block valves in the inoperable vent path; restore the inoperable vent path to OPERABLE status within 30 days, or, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With both Reactor Coolant System vent paths inoperable; maintain the inoperable vent path closed with power removed from the valve actuators of all the vent valves and block valves in the inoperable vent paths, and restore at least one of the vent paths to OPERABLE status within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each Reactor Coolant System vent path block valve not required to be closed by ACTION a. or b., above, shall be demonstrated OPERABLE at least once per COLD SHUTDOWN, if not performed within the previous 92 days, by operating the valve through one complete cycle of full travel from the control room.

4.4.11.2 Each Reactor Coolant System vent path shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying all manual isolation valves in each vent path are locked in the open position,

*For an OPERABLE vent path using a power-operated relief valve (PORV) as the vent path, the PORV block valve is not required to be closed.

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

HOT STANDBY, STARTUP, AND POWER OPERATION

LIMITING CONDITION FOR OPERATION

3.5.1.1 Each Reactor Coolant System (RCS) accumulator shall be OPERABLE with:

a. The isolation valve open and power removed,

b. A contained borated water volume of between 6121 and 6596 gallons,

c. A boron concentration of between 1900 and 2100 ppm, and

d. A nitrogen cover-pressure of between 585 and 664 psig.

APPLICABILITY: MODES 1, 2, and 3*.

ACTION:

a. With one accumulator inoperable, except as a result of a closed isolation valve, restore the inoperable accumulator to OPERABLE status within 8 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

b. With one accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in at least HOT STANDBY within 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

c. With one pressure or water level channel inoperable per accumulator, return the inoperable channel to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With two pressure channels or two water level channels inoperable per accumulator, immediately declare the affected accumulator(s) inoperable.

SURVEILLANCE REQUIREMENTS

4.5.1.1 Each accumulator shall be demonstrated OPERABLE:

a. At least once per 24 hours by:

1) Verifying the contained borated water volume and nitrogen cover-pressure in the tanks, and

*Pressurizer pressure above 1000 psig.

SURVEILLANCE REQUIREMENTS

4.5.1.1 (Continued)

2) Verifying that each accumulator isolation valve is open.

b. By verifying the boron concentration of the accumulator solution under the following conditions:

1) At least once per 31 days,

2) Within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume. This surveillance is not required when the volume increase makeup source is the RWST and the RWST has not been diluted since verifying that the RWST boron concentration is equal to or greater than the accumulator boron concentration limit.

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is disconnected.

d. At least once per 18 months by verifying that each accumulator isolation valve opens automatically under each of the following conditions:

1) When an actual or a simulated RCS pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) Setpoint, and

2) Upon receipt of a Safety Injection test signal.

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

a. At least once per 24 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

Valve Number	Valve Function	Valve Position
SI-V-3	Accumulator Isolation	Open*
SI-V-17	Accumulator Isolation	Open*
SI-V-32	Accumulator Isolation	Open*
SI-V-47	Accumulator Isolation	Open*
SI-V-114	SI Pump to Cold-Leg Isolation	Open
RH-V-14	RHR Pump to Cold-Leg Isolation	Open
RH-V-26	RHR Pump to Cold-Leg Isolation	Open
RH-V-32	RHR to Hot-Leg Isolation	Closed
RH-V-70	RHR to Hot-Leg Isolation	Closed
SI-V-77	SI to Hot-Leg Isolation	Closed
SI-V-102	SI to Hot-Leg Isolation	Closed

b. At least once per 31 days by:

1) Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, and

2) Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suctions during LOCA conditions. This visual inspection shall be performed:

1) For all accessible areas of the containment prior to establishing primary CONTAINMENT INTEGRITY, and

2) At least once daily of the areas affected within containment by containment entry and during the final entry when primary CONTAINMENT INTEGRITY is established.

*Pressurizer pressure above 1000 psig.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST* and automatically transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position;

b. By verifying, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 262 psi when tested pursuant to Specification 4.0.5;

c. At least once per 18 months during shutdown, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure-Hi-3 test signal, and

2) Verifying that each spray pump starts automatically on a Containment Pressure-Hi-3 test signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

*In MODE 4, when the Residual Heat Removal System is in operation, an OPERABLE flow path is one that is capable of taking suction from the refueling water storage tank upon being manually realigned.

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of a CHANNEL CHECK at least once per 12 hours, an ANALOG CHANNEL OPERATIONAL TEST at least once per 92 days, and at least once each refueling interval by performing a CHANNEL CALIBRATION using sample gas containing:

a. One volume percent hydrogen, balance nitrogen; and

b. Four volume percent hydrogen, balance nitrogen.

CONTAINMENT SYSTEMS

COMBUSTIBLE GAS CONTROL

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one Hydrogen Recombiner System inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE at least once each refueling interval by:

a. Verifying during a Hydrogen Recombiner System functional test that the minimum heater sheath temperature increases to greater than or equal to 850°F within 90 minutes. Upon reaching 850°F, increase the power setting to maximum power for 2 minutes and verify that the power meter reads greater than or equal to 65 kW; and

b. Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits,

c. Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiner enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and

d. Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. One motor-driven emergency feedwater pump, and one startup feedwater pump capable of being powered from an emergency bus and capable of being aligned to the dedicated water volume in the condensate storage tank, and

b. One steam turbine-driven emergency feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.*

ACTION:

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With two emergency feedwater pumps inoperable, restore at least one emergency feedwater pump to OPERABLE status within 12 hours and restore both emergency feedwater pumps to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one emergency feedwater pump and the startup feedwater pump inoperable, restore both emergency feedwater pumps to OPERABLE status within 24 hours and all three pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position;

2) Verifying that each automatic valve in the flow path is in the fully open position whenever the Auxiliary Feedwater System is placed in automatic control or when above 10% RATED THERMAL POWER; and

*Not required in Mode 3 until initial criticality is achieved.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1a. (Continued)

3) Verifying that valves FW-156 and FW-163 are OPERABLE for alignment of the startup feedwater pump to the emergency feedwater header.

b. At least once per 92 days on a STAGGERED TEST BASIS by:

1) Verifying that the motor-driven emergency feedwater pump develops a discharge pressure of greater than or equal to 1460 psig at a flow of greater than or equal to 270 gpm;

2) Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1460 psig at a flow of greater than or equal to 270 gpm when the secondary steam supply pressure is greater than 500 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3;

3) Verifying that the startup feedwater pump develops a discharge pressure of greater than or equal to 1375 psig at a flow of greater than or equal to 425 gpm;

c. At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Emergency Feedwater System Actuation test signal;

2) Verifying that each emergency feedwater pump starts as designed automatically upon receipt of an Emergency Feedwater Actuation System test signal;

3) Verifying that with all manual actions, including power source and valve alignment, the startup feedwater pump starts within the required elapsed time; and

4) Verifying that each emergency feedwater control valve closes on receipt of a high flow test signal.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System, and

b. Two separate and independent diesel generators, each with:

1) A separate day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons),

2) A separate Fuel Storage System containing a minimum volume of 60,000 gallons of fuel,

3) A separate fuel transfer pump,

4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and

5) Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With an offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least two offsite circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

LIMITING CONDITION FOR OPERATION

3.8.1.1 (Continued)

ACTION:

b. With a diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.* Restore at least two diesel generators to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.* Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits to OPERABLE status within 24 hours and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*The OPERABILITY of the remaining diesel generator need not be verified if the diesel generator became inoperable due to:

1. Preplanned preventive maintenance or testing,

2. An inoperable support system with no potential common mode failure for the remaining diesel generator, or

3. An independently testable component with no potential common mode failure for the remaining diesel generator.

LIMITING CONDITION FOR OPERATION

3.8.1.1 (Continued)

ACTION:

d. With one diesel generator inoperable in addition to ACTION b. or c. above, verify that:

1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and

2. When in MODE 1, 2, or 3, the steam-driven emergency feedwater pump is OPERABLE.

If these conditions are not satisfied within 2 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. With two of the above required offsite A.C. circuits inoperable; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 24 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

f. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

IV. Safety Evaluation of License Amendment Request 93-14 Proposed Changes

The staff of the U.S. Nuclear Regulatory Commission (NRC) has completed a comprehensive examination of Technical Specification (TS) surveillance requirements that require testing during power operation. This effort is a part of the NRC Technical Specification Improvement Program (TSIP). The results of this work are reported in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," December 1992.

The staff found that while the majority of the testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the Technical Specifications require at power operating conditions.

The NRC staff used four criteria to screen the surveillance requirements. The criteria are as follows:

1. The surveillance could lead to a plant transient.
2. The surveillance results in unnecessary wear to equipment.
3. The surveillance results in radiation exposure to plant personnel which is not justified by the safety significance of the surveillance.
4. The surveillance places an unnecessary burden on plant personnel because the time required is not justified by the safety significance of the surveillance.

On September 27, 1993 the NRC issued Generic Letter 93-05, "Line Item Improvements to Reduce Surveillance Requirements for Testing during Power Operation". The Generic Letter encourages licensees to propose Technical Specification changes that are consistent with the guidance provided.

The changes proposed by License Amendment Request (LAR) 93-14 are consistent with the guidance provided in Generic Letter 93-05. Of the thirteen changes proposed only one change is not completely in accordance with the recommendations of NUREG-1366. This change to the ACTION statements of Technical Specification 3.8.1.1 is discussed below.

The change to the ACTION statements of Technical Specification 3.8.1.1 revises the action requirements for starting a non-affected emergency diesel generator when the limiting conditions for operation of the electrical distribution system are degraded. Current action statements require alternate testing of a non-affected emergency diesel generator. This testing is performed to enhance emergency diesel generator reliability. Industry experience has shown that alternate testing has, in fact, reduced reliability because reliability decreases as the number of quick starts increases. When emergency diesel generator reliability testing is required because of a potential common mode failure, this change will require starting the emergency diesel generator.

NUREG-1366 recommends both starting and loading the emergency diesel generator under this condition. Under the Limiting Condition of Operation (LCO), with one emergency diesel generator inoperable and the operable emergency diesel generator requiring testing, the operable emergency diesel generator should not be loaded. Loading the operable emergency diesel generator could subject it to grid faults which could adversely affect emergency diesel generator

operation and could, in a worst case situation, result in a complete loss of all AC power (both offsite and onsite). This adverse condition was recognized by the NRC in a recent Notice of Violation to another licensee that cited the licensee for failing "...to avoid the potential for rendering all emergency diesel generators (EDG) unavailable by paralleling one or more EDGs to the grid while the remaining EDG(s) were inoperable..." In this case the licensee's procedures required parallelling the operable EDG to the offsite power grid whenever the remaining EDG is inoperable. Therefore, the NUREG-1366 recommendation to load the diesel in response to an action condition is not incorporated.

Increasing the surveillance test intervals as proposed in LAR 93-14 results in less frequent surveillance testing and minimizes the potential number of inadvertent Engineering Safety Features Actuation System (ESFAS) actuations and reactor trips during surveillance testing. The increase in the surveillance test interval enhances the operational effectiveness of plant personnel. The amount of time plant personnel spend performing surveillance testing will be reduced. This allows staff time to be used for other tasks such as additional preventive maintenance. In addition, increasing the surveillance test interval will reduce unnecessary wear to equipment.

In conclusion, the changes proposed by LAR 93-14 do not adversely affect public health and safety. In addition, the proposed revision will reduce the potential for inadvertent ESFAS actuations and reactor trips due to testing activities and will allow North Atlantic to better manage resources to maintain the plant. Therefore, there is no increase in the safety consequences associated with the requested amendment.

V. Determination of Significant Hazards for License Amendment Request 93-14

A. The changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Each of the proposed changes has been extensively reviewed by the NRC during the preparation of NUREG-1366 and Generic Letter 93-05 and by North Atlantic during the development and approval of this License Amendment Request. For the purposes of addressing the no significant hazards consideration determination, each change is discussed below.

1. Control rod movement testing is performed to determine if the control rods are immovable. The control rods may be immovable either because of an electrical problem in the control rod drive circuitry or because the control rod is mechanically stuck. Electrical problems with the control rod drive system, in general, do not prevent insertion of a control rod into the core when the reactor trip breakers are opened.

   Control rod movement testing has been ineffective in determining immovable control rods. NUREG-1366, Table 4.1, identified seventeen cases of mechanically stuck Pressurized Water Reactor (PWR) control rods since 1969. Of the seventeen, only 2 were discovered during Technical Specification rod motion surveillances. Both of these failures happened more than nine years ago. Most cases (15 out of 17) of mechanically immovable control rods were discovered during control rod drop timing tests performed during startup physics testing or when the rods were withdrawn from the core during plant startup. Extending the surveillance interval will not affect this failure discovery method.

   The accident analyses assume that the single highest worth control rod is stuck and will not insert. One immovable control rod will still bound this accident analysis. For these reasons, the extension of the surveillance frequency from once every 31 days to once every 92 days will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

2. Hydrogen monitors are used to monitor hydrogen concentration in the containment following a Loss of Coolant Accident (LOCA). These monitors are used only after a LOCA to tell the operator when to initiate the hydrogen recombiners. The hydrogen recombiners are used to limit the amount of hydrogen in the post-LOCA containment atmosphere. The hydrogen recombiners are not required for a period of hours to days after a large-break LOCA.

   Concurrent with the post-LOCA operation of these monitors, gas samples are obtained and independently used to determine hydrogen concentration. Therefore, even without the installed hydrogen monitors, post-LOCA hydrogen concentration can be determined. This determination can be completed within the same general time period as using the installed monitors.

For these reasons, the extension of the surveillance frequency for performing an ANALOG CHANNEL OPERATIONAL TEST from once every 31 days to once every 92 days, and a CHANNEL CALIBRATION from once every 92 days on a STAGGERED TEST BASIS to once every refueling interval, will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

3. Industry experience has demonstrated that the testing of radiation monitors produces a significant number of isolations of the control room, fuel handling building, auxiliary buildings, and various process lines. Additionally, this testing requires significant staff-hours to implement. Frequent testing of the equipment may also degrade its performance. The radiation monitors at Seabrook Station have had a minimal failure history. In addition, CHANNEL CHECKS will continue to be performed every 12 hours on these monitors. These channel checks, in conjunction with failure alarms, would detect failures that require corrective action. It is appropriate, therefore, to extend the surveillance test interval.

   Therefore, the extension of the surveillance frequencies from monthly to quarterly for the ANALOG CHANNEL OPERATIONAL TEST and the DIGITAL CHANNEL OPERATIONAL TEST will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

4. Allowable leakage from any pressure isolation valve (PIV) is sufficiently low to ensure early detection of possible in-series check valve failure. These valves are important in preventing overpressurization and rupture of the Emergency Core Cooling System (ECCS) low pressure piping which could result in a LOCA that bypasses containment. This change will not change the eighteen-month surveillance test interval, nor will it change the required testing to be performed within 24 hours of valve actuation. This level of surveillance testing is appropriate for these valves.

   Changing the frequency of the surveillance may allow an inoperable PIV to remain in service longer than if the change were not implemented. However, the motor-operated valves have not experienced any excessive leakage. The check valves will be tested within 24 hours of any actuation and since the reseating of the check valves after actuation is the most likely method of failure, this change can be implemented without increasing the probability of a malfunction of equipment important to safety.

   For these reasons, the extension of the amount of time from three days to seven days before pressure isolation valve testing is required will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

5. Reactor Coolant System (RCS) vents are provided to exhaust noncondensible gases and/or steam from the primary system that could inhibit natural circulation core cooling. The operability of at least one RCS vent path from the reactor vessel head and the pressurizer steam space ensures that the capability exists to perform this function.

The valve redundancy of the reactor coolant vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply, or control system does not prevent isolation of the vent path.

For these reasons, the extension of the surveillance frequency from once every 92 days to once per COLD SHUTDOWN will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

6. The pressurizer heaters are used to control Reactor Coolant System pressure during normal operations. Additionally, the minimum number of pressurizer heaters specified in the Technical Specifications enhances the capability of the plant to control Reactor Coolant System pressure and establish natural circulation.

   The pressurizer heaters are normally in constant use, both the proportional and to some extent the backup heaters. Any problems associated with these heaters would be identified during such operation. These heaters are also very reliable.

   For these reasons, the extension of the surveillance frequency from once every 92 days to each refueling interval will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

7. This Technical Specification change will remove the requirement to verify boron concentration of accumulator inventory after a volume increase of 1% or more if the makeup is from the RWST and the minimum concentration of boron in the RWST is greater than or equal to the minimum boron concentration in the accumulator, and the RWST has not been diluted since it was last sampled and determined to be within specifications.

   This change will not affect the proper accumulator boron concentration of the accumulators. Therefore this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

8. This Technical Specification change removes the accumulator water level and pressure channel surveillance from the Technical Specifications and places them into a licensee-controlled program. These changes are consistent with industry recognition that accumulator instrumentation operability is not directly related to the capability of the accumulators to perform their safety function.

   Relocating the instrumentation surveillance requirements is an administrative change which will not affect equipment availability, testing, or operation; therefore, it will have no effect on the consequences of an accident.

For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

9. This Technical Specification change clarifies when the containment sump visual inspection must be performed. Current inspections must be performed at the completion of each containment entry; therefore, multiple jobs in one day would require multiple inspections. The NRC staff recommends that this inspection be done at least once daily if the containment has been entered that day and when the final containment entry is made. This change would reduce the number of unnecessary inspections and also reduce personnel exposure.

   This change only clarifies the current surveillance requirements; it does not make substantial changes to these requirements nor does it change the method of performing the surveillance.

   For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

10. This Technical Specification change will revise the containment spray system nozzle testing surveillance from once every five years to once every ten years.

    The two independent containment spray systems provide post-accident cooling of the containment atmosphere. The containment spray systems also provide a mechanism for removing iodine from the containment atmosphere. The surveillance test verifies by an air or smoke flow test that the spray nozzles are unobstructed. The extension of the surveillance frequency does not affect administrative controls that preclude entry of foreign material into the nozzles.

    At Seabrook Station, the piping headers and nozzles are fabricated from austenitic stainless steel. There have been no reported in-service problems noted with spray nozzle testing from plants with stainless steel headers and nozzles and there is no indication that the lines would corrode and become obstructed.

    For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

11. This Technical Specification change will revise the containment hydrogen recombiner testing surveillance from every six months to every refueling interval.

    The two independent containment hydrogen recombiners provide post-accident hydrogen control of the containment atmosphere. This equipment is designed to be passive until an accident occurs.

    The two independent containment hydrogen recombiners provide post-accident hydrogen control of the containment atmosphere. This equipment is highly reliable.

The backup purge system can be used if recombiner operation is not possible. The backup purge system can purge the containment at a controlled rate while replacing the purged gas with clean compressed air. This redundancy along with the high reliability of the hydrogen recombiners ensures post-accident hydrogen control.

For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

12. This Technical Specification will revise the frequency for testing the emergency feedwater pumps and the startup feedwater pump from once every 31 days on a STAGGERED TEST BASIS to once every 92 days on a STAGGERED TEST BASIS.

Three pumps (two emergency feedwater pumps and one startup feedwater pump) are used to perform the function of the auxiliary feedwater system. The industry has experienced problems running these pumps on a recirculation test lineup. Generally these lineups have provided a flow path of only between 5 to 15% of the best efficiency point flow. This can result in degradation of the pump if continued over a substantial time or if continually repeated for short duration. At Seabrook Station, the recirculation flow is properly sized to be above 25% of best efficiency flow. This is consistent with pump manufacturer's recommendations. However, monthly testing of each pump does cause other components such as valves to undergo substantial wear during each pump test.

Each pump has a 100% capacity to provide emergency feedwater to the steam generators. This redundancy along with the high reliability of the Seabrook Station pumps ensures post-accident feedwater flow.

For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

13. This Technical Specification change revises the ACTION requirements for starting a non-affected emergency diesel generator when the limiting conditions for operation of the electrical distribution system are degraded. Current ACTION statements require alternate testing of a non-affected emergency diesel generator. This is done to enhance reliability. Industry experience has shown that alternate testing has in fact reduced reliability because reliability decreases as the number of quick starts increases.

This change will improve emergency diesel generator performance by reducing the number of unnecessary quick starts and by requiring more appropriate testing of the emergency diesel generators when there is a potential common mode failure.

For these reasons, this change will not result in a significant increase in the probability or consequences of a previously evaluated accident, nor will it result in a significant reduction in a margin of safety.

B. The proposed ch[illegible] do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The extension of the surveillance intervals will not result in any changes in plant configuration or operation. Therefore, the extensions will not create a possibility of a new or different kind of accident from any previously evaluated or analyzed.

C. The proposed changes do not involve a significant reduction in a margin of safety.

The changes proposed in this License Amendment Request do not reduce the ability of any system or component to perform its safety related function. The basis of NUREG-1366, Generic Letter 93-05, and the analysis performed in support of this License Amendment Request is that the reduction in the surveillance testing and unnecessary emergency diesel engine starts listed herein can improve safety by reducing challenges to plant systems, personnel exposure, and equipment wear or degradation. These proposed changes involve only surveillance frequencies and do not change the method of performing any surveillance. The operation of systems and equipment remains unchanged. Therefore, reducing surveillance frequencies and eliminating unnecessary emergency diesel starts does not involve a reduction in the margin of safety.

VI. Proposed Schedule for Amendment Issuance and Effectiveness

North Atlantic requests NRC review of License Amendment Request 93-14 and issuance of a license amendment having immediate effectiveness by April 30, 1994.

VII. Environmental Impact Statement

North Atlantic has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not involve a significant hazard consideration, nor increase the types and amounts of effluent which may be released off site, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, North Atlantic concludes that the proposed changes meet the criteria delineated in 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.