

INSTRUMENTATION

REMOTE SHUTDOWN INSTRUMENTATION

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LIMITING CONDITION FOR OPERATION

3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, ~~restore the inoperable channel to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.~~

b. The provisions of Specification 3.0.4 are not applicable.

Within 7 days either restore the inoperable channels to operable status or provide other means of measuring the parameter(s) and submit a Special Report to the Commission pursuant to Specification 6.9.2 outlining the plans for restoring the inoperable instrument to operable status. Otherwise be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

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INSTRUMENTATION

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ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-10, ~~restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.~~
- b. With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-10, ~~either restore the inoperable channels to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.~~
- c. The provisions of Specification 3.0.4 are not applicable.
Within 48 hours either restore the inoperable channel to operable status or provide other means of measuring the parameter(s) and submit a Special Report to the Commission pursuant to Specification 6.9.2 outlining the plans for restoring the inoperable instrument(s) to operable status. Otherwise be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

Within 7 days either restore the inoperable channel to operable status or provide other means of measuring the parameter(s) and submit a Special Report to the Commission pursuant to Specification 6.9.2 outlining the plans for restoring the inoperable instrument(s) to operable status. Otherwise be in HOT SHUTDOWN within the next 12 hours.

4.4.5.3 Inspection Frequencies - The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

- a. The first inservice inspection shall be performed after 6 Effective Full Power Months but within 24 calendar months of initial criticality. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.
- b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.4-2 at 40 month intervals fall in Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 4.4.5.3.a; the interval may then be extended to a maximum of once per 40 months.
- c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.4-2 during the shutdown subsequent to any of the following conditions:
 1. Primary-to-secondary tubes leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2.
 2. A seismic occurrence greater than the Operating Basis Earthquake.
 3. A loss-of-coolant accident requiring actuation of the engineered safeguards of such magnitude that high head safety injection pumps are not able to maintain reactor coolant system pressure above *Secondary System pressure*.
 4. A main steam line or feedwater line break.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

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LIMITING CONDITION FOR OPERATION

3.4.6.2 Reactor Coolant System leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE,
- b. 1 GPM UNIDENTIFIED LEAKAGE,
- c. 1 GPM total primary-to-secondary leakage through all steam generators not isolated from the Reactor Coolant System and 500 gallons per day through any one steam generator not isolated from the Reactor Coolant System,
- d. 10 GPM IDENTIFIED LEAKAGE from the Reactor Coolant System, and
- e. 33 GPM CONTROLLED LEAKAGE at a Reactor Coolant System pressure of 2235 ± 20 psig.
- f. ~~1 GPM leakage at a Reactor Coolant System pressure of 2235 ± 20 psig from any Reactor Coolant System Pressure Isolation valves specified in Table 3.4-1.~~ Shall be OPERABLE per surveillance 4.4.6.2.2.

APPLICABILITY: MODES 1, 2, 3 and 4

ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE and Leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. ~~With any Reactor Coolant System Pressure Isolation Valve Leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by;

- a. Monitoring the reactor building atmosphere (gaseous or particulate) radioactivity monitor at least once per 12 hours.

With any Reactor Coolant System Pressure Isolation Valve not OPERABLE per 4.4.6.2.2, provide at least one additional closed isolation valve between the RCS and low pressure portions of the system for each Reactor Coolant System Pressure Isolation Valve not OPERABLE, or reduce RCS pressure to < 600 psig.

REACTOR COOLANT SYSTEM

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SURVEILLANCE REQUIREMENTS (Continued)

- b. Monitoring the reactor building sump inventory at least once per 12 hours.
- c. Measurement of the CONTROLLED LEAKAGE to the reactor coolant pump seals when the Reactor Coolant System pressure is 2235 ± 20 psig at least once per 31 days with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.
- d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours.
- e. Monitoring the reactor head flange leakoff system at least once per 24 hours.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE pursuant to Specification 4.0.5, except that in lieu of any leakage testing required by Specification 4.0.5, each valve shall be demonstrated OPERABLE by verifying leakage to be within ~~the~~ *the* limits specified in Table 3.4-1.

- a. Every refueling outage during startup.
- b. Prior to returning the valve to service following maintenance repair or replacement work on the valve.
- c. Prior to entering MODE 2 following valve actuation due to automatic or manual action or flow through the valve for valves denoted on Table 3.4-1 by an asterisk.
- d. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

TABLE 3.4-1

Reactor Coolant System Pressure Isolation Valves

Valve No.	Description	Maximum Allowable Leakage (1)
8993A	SI to Hot Legs Loop A	10 GPM
8993B	SI to Hot Legs Loop B	10 GPM
8993C	SI to Hot Legs Loop C	10 GPM
8988A	SI Low Head to Hot Legs A	10 GPM
8988B	SI Low Head to Hot Legs B	10 GPM
8998A	SI to Cold Legs Loop A	10 GPM
8998B	SI to Cold Legs Loop B	10 GPM
8998C	SI to Cold Legs Loop C	10 GPM
8973A	RHR Low Head to Loop A	10 GPM
8973B	RHR Low Head to Loop B	10 GPM
8973C	RHR Low Head to Loop C	10 GPM
8948A*	Accumulator to Loop A	10 GPM
8948B*	Accumulator to Loop B	10 GPM
8948C*	Accumulator to Loop C	10 GPM
8956A*	Accumulator to Loop A	10 GPM
8956B*	Accumulator to Loop B	10 GPM
8956C*	Accumulator to Loop C	10 GPM

- (1) Leakage measurements shall be conducted pursuant to 4.0.5. The minimum differential pressure shall be \geq 1000 psid and the leakage rate shall be corrected to 2235 psid.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

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LIMITING CONDITION FOR OPERATION

3.7.3 At least two independent component cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops 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.

HOT

SURVEILLANCE REQUIREMENTS

4.7.3 At least two component cooling water loops shall be demonstrated OPERABLE

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

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

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LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent service water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one service water loop OPERABLE, restore at least two loops 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.

HOT

SURVEILLANCE REQUIREMENTS

4.7.4 At least two service water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 18 months during shutdown, by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a simulated SI test signal or on an ESFLS, as applicable.
- c. At least once per 18 months, by verifying that each service water system booster pump starts automatically on a safety injection signal.

PLANT SYSTEMS

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3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.5 The service water pond (ultimate heat sink) shall be OPERABLE with:

- a. A minimum water level at or above elevation 415 Mean Sea Level, USGS datum, and
- b. A water temperature of less than or equal to 95°F at the discharge of the service water pumps.

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

ACTION:

With the requirements of the above specification not satisfied, be in at least HOT-STANDBY within 6 hours, and in ~~COLD~~ SHUTDOWN within the following 30 hours.

HOT

SURVEILLANCE REQUIREMENTS

4.7.5 The service water pond shall be determined OPERABLE at least once per 24 hours by verifying the water temperature and water level to be within their limits.

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

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LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent service water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one service water loop OPERABLE, restore at least two loops 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.

HOT

SURVEILLANCE REQUIREMENTS

4.7.4 At least two service water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 18 months during shutdown, by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a simulated SI test signal or on an ESFLS, as applicable.
- c. At least once per 18 months, by verifying that each service water system booster pump starts automatically on a safety injection 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 volume of 300 gallons of fuel,
 2. A separate fuel storage system containing a minimum volume of 42,500 gallons of fuel; and
 3. A separate fuel transfer pump.

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 Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter; restore at least two offsite circuits 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~~ ^{HOT} SHUTDOWN within the following 30 hours.
- b. 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 Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter; 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 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.

HOT

ACTION: (Continued)

- c. 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 auxiliary feed 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.

HOT

- d. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within one 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 72 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.
- e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one 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.

HOT

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months during shutdown by manually transferring unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day tank,

ELECTRICAL POWER SYSTEMS

3/4.8.2 D.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 As a minimum the following D.C. electrical sources shall be OPERABLE:

- a. 125-volt Battery bank No. 1A and its associated full capacity charger.
- b. 125-volt Battery bank No. 1B and its associated full capacity charger.

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

ACTION:

- a. With one of the required battery banks inoperable, restore the inoperable battery bank 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.
HOT.
- b. With one of the required full capacity chargers inoperable, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within one hour, and at least once per 8 hours thereafter. If any Category A limit in Table 4.8-2 is not met, declare the battery inoperable.

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each 125-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
 1. The parameters in Table 4.8-2 meet the Category A limits, and
 2. The total battery terminal voltage is greater than or equal to 129 volts on float charge.

ELECTRICAL POWER SYSTEMS

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner with tie breakers open between redundant busses:

- a. Train A A.C. Emergency Busses consisting of:
 1. 7200 volt Emergency Busses # 1DA and 1EA.
 2. 480 volt Emergency Busses # 1DA1, 1DA2 and 1EA1.
- b. Train B A.C. Emergency Busses consisting of:
 1. 7200 volt Emergency Busses # 1DB and 1EB.
 2. 480 volt Emergency Busses # 1DB1, 1DB2, and 1EB1.
- c. 120 volt A.C. Vital Busses # 5902, 5907 and 5901 energized from an associated inverter connected to D.C. Bus # 1HA*.
- d. 120 volt A.C. Vital Busses # 5904, 5908 and 5903 energized from an associated inverter connected to D.C. Bus # 1HB*.
- e. 125 volt D.C. Bus 1HA energized from Battery Bank #1A.
- f. 125 volt D.C. Bus 1HB energized from Battery Bank #1B.

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

ACTION:

- a. With one of the required trains of A.C. Emergency busses not fully energized, re-energize the division within 8 hours or be in at least HOT STANDBY within the next 6 hours and in ~~COLD~~ SHUTDOWN within the following 30 hours.

HOT
- b. With one A.C. Vital Bus either not energized from its associated inverter, or with the inverter not connected to its associated D.C. Bus: (1) re-energize the A.C. Vital Bus within 2 hours or be in at least HOT STANDBY within the next 6 hours and in ~~COLD~~ SHUTDOWN within the following 30 hours; and (2) re-energize the A.C. Vital Bus from its associated inverter connected to its associated D.C. Bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

HOT
- c. With one D.C. Bus not energized from its associated Battery Bank, re-energize the D.C. bus from its associated Battery Bank within 2 hours or be in at least HOT STANDBY within the next 6 hours and in ~~COLD~~ SHUTDOWN within the following 30 hours.

HOT

* Three inverters may be disconnected from their D.C. Bus for up to 24 hours as necessary for the purpose of performing an equalizing charge on their associated battery bank provided (1) their vital busses are energized, and (2) the vital busses associated with the other battery bank are energized from their associated inverters and connected to their associated D.C. Bus.