# REVISED MARKED-UP TECHNICAL SPECIFICATIONS PAGES FOR LAR 95-07 ATTACHMENT B

Instructions:

| Remove Enclosure B from LAR | Insert new Enclosure B into LAR |
|---|---|

Description of changes to enclosure:

LAR Remove & Insert List - revised to reflect removal of p. 3/4 6-16 from this LAR

Page 1-2 - revised change to section 1.8d.

3/4 6-1 - reflects removal of 4.6.1.1c by LAR 95-09

3/4 6-16 - removed page from LAR; change no longer required

B 3/4 6-1 - removed insert d from LAR; insert no longer required

PG&E Letter DCL-96-153
Enclosure 1

(Replacement Attachment B to
LAR 95-07, Letter DCL-95-222)

## MARKED-UP TECHNICAL SPECIFICATIONS

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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## LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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## LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

BASES



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BASES



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CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions, or

b. Bistable channels - the injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

c. Digital channels - the injection of a simulated signal into the channel as close to the sensor input to the process racks as practical to verify OPERABILITY including alarm and/or trip functions.

CONTAINMENT INTEGRITY

1.8 CONTAINMENT INTEGRITY shall exist when:

a. All penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or

2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

b. All equipment hatches are closed and sealed,

c. Each air lock ~~is in compliance with the requirements of Specification~~ as determined by Surveillance Requirement 4.6.1.1C 3.6.1.3,

d. The containment leakage rates ~~are within the limits of Specification~~ listed in the Bases for 3.6.1.1 and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATIONS

1.10 CORE ALTERATIONS shall be the movement or manipulation of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe conservative position.



AMENDMENT NOS. 46 AND 48; 84 & 83
OCT 7 1985

REACTIVITY CONTROL SYSTEMS

FLOW PATHS - OPERATING

DELETE

LIMITING CONDITION FOR OPERATION

3.1.2.2 Each of the following boron injection flow paths shall be OPERABLE:

a. The flow path from the boric acid tanks via a boric acid transfer pump and a charging pump to the Reactor Coolant System (RCS), and

b. The flow path from the refueling water storage tank via a charging pump to the RCS.

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

ACTION:

a. With the flow path from the boric acid tanks inoperable, restore the inoperable flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least 1%, $\Delta k/k$ at 200°F within the next 6 hours; restore the flow path to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

b. With the flow path from the refueling water storage tank inoperable, restore the flow path to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.2 Each of the above required flow paths shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that the temperature of the flow path from the boric acid tanks is greater than or equal to 65°F,

b. 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,

c. At least once per 18 months by verifying that each automatic valve in the flow path actuates to its correct position on a safety injection test signal, and

d. At least once per 18 months by verifying that the flow path required by Specification 3.1.2.2a delivers at least 30 gpm to the RCS.

#Only one boron injection flow path is required to be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 270°F.



Unit 1 - Amendment No. 100
Unit 2 - Amendment No. 99
April 13, 1995

LIMITING CONDITION FOR OPERATION

ACTION (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 demand position 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 days.

INSERT A



Amendment Nos. 45 and 44
October 20, 1989

**Insert A**
Page 3/4 1-16 (Relocated from TS 3.1.3.4)

4.1.3.1.3 Prior to reactor criticality, verify that the rod drop time of the full-length shutdown and control rods is $\leq$ 2.7 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry, with $T_{AVG} \geq$ 541°F, and all reactor coolant pumps operating:

a. For all rods following each removal of the reactor vessel head, and

b. For specifically affected individual rods following any maintenance on or modification to the Control Rod Drive System which could affect the drop time of those specific rods.

## POSITION INDICATION SYSTEMS - OPERATING

### LIMITING CONDITION FOR OPERATION

3.1.3.2 The Digital Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the control rod positions within ± 12 steps.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With a maximum of one digital rod position indicator per bank inoperable either:

1. Determine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and immediately after any motion of the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or

2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.

b. With a maximum of one demand position indicator per bank inoperable either:

1. Verify that all digital rod position indicators for the affected bank are OPERABLE and that the most withdrawn rod and the least withdrawn rod of the bank are within a maximum of 12 steps of each other at least once per 8 hours, or

2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.

### SURVEILLANCE REQUIREMENTS

4.1.3.2 Each digital rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Digital Rod Position Indication System agree within 12 steps at least once per 12 hours except during time intervals when the rod position deviation monitor is inoperable, then compare the Demand Position Indication System and the Digital Rod Position Indication System at least once per 4 hours.

INSERT B

**Insert B**
Page 3/4 1-18 (Relocated from TS 3.1.3.3)

4.1.3.3 Each of the required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full range of rod travel at least once per 18 months.

REACTIVITY CONTROL SYSTEMS

POSITION INDICATION SYSTEM - SHUTDOWN

DELETE

LIMITING CONDITION FOR OPERATION

3.1.3.3 One digital rod position indicator (excluding demand position indication) shall be OPERABLE and capable of determining the control rod position within ± 12 steps for each shutdown or control rod not fully inserted.

APPLICABILITY: MODES 3*#, 4*# and 5*#.

ACTION:

With less than the above required position indicator(s) OPERABLE, immediately open the Reactor Trip System breakers.

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each of the above required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full range of rod travel at least once per 18 months.

*With the Reactor Trip System breakers in the closed position.

#See Special Test Exceptions Specification 3.10.4



(Next Page is 3/4 1-21)

DELETE

ROD DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual full-length shutdown and control rod drop time from the fully withdrawn position shall be less than or equal to 2.7 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry with:

a. $T_{avg}$ greater than or equal to 541°F, and

b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the drop time of any full-length rod determined to exceed the above limit, restore the rod drop time to within the above limit prior to proceeding to MODE 1 or 2.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The rod drop time of full-length rods shall be demonstrated through measurement prior to reactor criticality:

a. For all rods following each removal of the reactor vessel head,

b. For specifically affected individual rods following any maintenance on or modification to the Control Rod Drive System which could affect the drop time of those specific rods, and

c. At least once per 18 months.



Amendment Nos. 72 & 71
August 6, 1992

INSTRUMENTATION

SEISMIC INSTRUMENTATION

DELETE

LIMITING CONDITION FOR OPERATION

3.3.3.3 The seismic monitoring instrumentation# shown in Table 3.3-7 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

a. With one or more seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.3.1 Each of the above seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3-4.

4.3.3.3.2 Each of the above seismic monitoring instruments actuated during a seismic event shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION, as applicable, performed within 10 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 14 days describing the magnitude, frequency spectrum and resultant effect upon facility features important to safety.

#The seismic monitoring instrumentation is common to both units but located in Unit 1 or common areas.

DELETE

TABLE 3.3-7

SEISMIC MONITORING INSTRUMENTATION

| INSTRUMENTS AND SENSOR LOCATIONS | MEASUREMENT RANGE | MINIMUM INSTRUMENTS OPERABLE |
|---|---|---|
| 1. Triaxial Time-History Accelographs | | |
| a. Containment Base Slab, El 89, 180° | ± 1g | 1* |
| b. Top Unit 1 Containment, El 303.5, 225° | ± 2g | 1 |
| c. Aux Building, El 64 | ± 1g | 1 |
| 2. Triaxial Peak Accelographs | | |
| a. Containment Base Slab, El 89, 180° | ± 2g | 1 |
| b. Top Unit 1 Containment, El 303.5, 225° | ± 5g | 1 |
| c. Intake near ASW Pump 1-2 Bay, El 2 | ± 2g | 1 |
| d. Turbine Building, El 85, Machine Shop | ± 2g | 1 |
| e. Aux Building, El 140, Hot Shop | ± 2g | 1 |
| f. Aux Building, El 140, Near Control Room Door | ± 2g | 1 |
| 3. Triaxial Response-Spectrum Recorders | | |
| Containment Base Slab, El 89, 180° | 1.6 - 90 g<br>2-25.4 Hz | 1 |

* With reactor control room indications or annunciation.

DELETE

TABLE 4.3-4

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| INSTRUMENTS AND SENSOR LOCATIONS | CHANNEL CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST |
|---|---|---|---|
| 1. Triaxial Time-History Accelographs | | | |
| a. Containment Base Slab, El 89, 180°** | M* | R | SA |
| b. Top Unit 1 Containment, El 303.5, 225° | M* | R | SA |
| c. Aux Building, El 64 | M* | R | SA |
| 2. Triaxial Peak Accelographs | | | |
| a. Containment Base Slab, El 89, 180° | N.A. | R*** | N.A. |
| b. Top Unit 1 Containment, El 303.5, 225° | N.A. | R*** | N.A. |
| c. Intake near ASW Pump 1-2 Bay, El 2 | N.A. | R*** | N.A. |
| d. Turbine Building, El 85, Machine Shop | N.A. | R*** | N.A. |
| e. Aux Building, El 140, Hot Shop | N.A. | R*** | N.A. |
| f. Aux Building, El 140, Near Control Room Door | N.A. | R*** | N.A. |
| 3. Triaxial Response-Spectrum Recorders | | | |
| Containment Base Slab, El 89, 180° | N.A. | R*** | N.A. |

*Except seismic trigger.

**With reactor control room indications or annunciation.

***Channel calibration shall be in accordance with ANSI/ANS-2.2-1978.

DELETE

INSTRUMENTATION

CHLORINE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.3.3.7 Two independent Chlorine Detection Systems,# with their Alarm/Trip Setpoints adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm, shall be OPERABLE.

APPLICABILITY: All MODES, when bulk chlorine gas is stored on the plant site.

ACTION:

a. With one Chlorine Detection System inoperable, restore the inoperable system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.

b. With both Chlorine Detection Systems inoperable, within 1 hour initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.

SURVEILLANCE REQUIREMENTS

4.3.3.7 Each Chlorine Detection System shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours and a CHANNEL FUNCTIONAL TEST at least once per 31 days. At least once per 18 months, the following inspections and maintenance shall be performed:

a. Check constant head bottle level and refill as necessary,

b. Clean the sensing cells,

c. Check flow meter operation and clean or replace filters and air lines as necessary,

d. Check air pump for proper operation, and

e. Verify that the detector responds to chlorine.

#The Chlorine Detection System is common to both units and is installed in the normal intakes to the Control Room Ventilation System.



Amendment Nos. 55 and 54
June 11, 1990

INSTRUMENTATION

3/4.3.4 TURBINE OVERSPEED PROTECTION

DELETE

LIMITING CONDITION FOR OPERATION

3.3.4.1 At least one Turbine Overspeed Protection System shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3 (during turbine operation).

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam line inoperable or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4.1.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.1.2 The above required Turbine Overspeed Protection System shall be demonstrated OPERABLE:

a. At least once per quarter by cycling and direct observation of the movement of each of the following valves through at least one complete cycle from the running position:

1) Four high pressure turbine stop valves,

2) Four high pressure turbine control valves,

3) Six low pressure turbine reheat stop valves, and

4) Six low pressure turbine reheat intercept valves.

b. At least once per 18 months by performance of a CHANNEL CALIBRATION on the Turbine Overspeed Protection Systems.

c. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.



Amendment Nos. 67 and 66
January 22, 1992

## 3/4.6 CONTAINMENT SYSTEMS

### 3/4.6.1 CONTAINMENT

### CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 CONTAINMENT INTEGRITY shall be maintained.

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

ACTION:

Without CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.

Add Insert "C", attached

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days.



Unit 1 - Amendment No. ~~73~~,110
Unit 2 - Amendment No. ~~72~~,109
MAR 1 1985

LAR 95-07

INSERT "c" (to page 3/4 6-1)

c. By performing containment leakage rate testing, except for containment air lock testing, in accordance with the Containment Leakage Rate Teasting Program.

CONTAINMENT LEAKAGE

DELETE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of:

1) Less than or equal to $L_a$, 0.10% by weight of the containment air per 24 hours at $P_a$, 47 psig, or, as applicable,

2) Less than or equal to $L_t$, 0.0472% by weight of the containment air per 24 hours at a reduced pressure of $P_t$, 25 psig.

b. A combined leakage rate of less than or equal to 0.60 $L_a$ for all penetrations and valves subject to Type B and C tests when pressurized to $P_a$.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either the measured overall integrated containment leakage rate exceeding 0.75 $L_a$ or 0.75 $L_t$, as applicable, or the measured combined leakage rate for all penetrations and valves subject to Type B and C tests exceeding 0.60 $L_a$, restore the overall integrated leakage rate to less than or equal to 0.75 $L_a$ or less than or equal to 0.75 $L_t$, as applicable, and the combined leakage rate for all penetrations subject to Type B and C tests to less than or equal to 0.60 $L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.



(Next Page is 3/4 6-5)

SURVEILLANCE REQUIREMENTS

DELETE

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972:

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during shutdown at greater than or equal to $P_a$, 47 psig, or, as applicable, at greater than or equal to $P_t$, 25 psig, during each 10-year service period.

b. If any periodic Type A test fails to meet 0.75 $L_a$ or 0.75 $L_t$, as applicable, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either 0.75 $L_a$ or 0.75 $L_t$, as applicable, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either 0.75 $L_a$ or 0.75 $L_t$, as applicable, at which time the above test schedule may be resumed;

c. The accuracy of each Type A test shall be verified by a supplemental test which:

1) Confirms the accuracy of the test by verifying that the supplemental test result, $L_c$, minus the sum of the Type A and the superimposed leak, $L_o$, is equal to or less than 0.25 $L_a$ or 0.25 $L_t$, as applicable;

2) Has a duration sufficient to establish accurately the change in leakage between the Type A test and the supplemental test; and

3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 $L_a$ and 1.25 $L_a$, or 0.75 $L_t$ and 1.25 $L_t$, as applicable.



Unit 1 - Amendment No. 99
Unit 2 - Amendment No. 98
May 11, 1995

SURVEILLANCE REQUIREMENTS (Continued)

DELETE

d. Type B and C tests shall be conducted with gas at $P_a$, 47 psig, at intervals no greater than 24 months except for tests involving:

1) Air locks, and

2) Penetrations using continuous Leakage Monitoring Systems.

e. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;

f. Type B tests for penetrations employing a continuous Leakage Monitoring System shall be conducted at greater than or equal to $P_a$, 47 psig, at intervals no greater than once per 3 years;

g. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated Leakage Measurement System; and

h. The provisions of Specification 4.0.2 are not applicable.

DELETE

CONTAINMENT STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

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

ACTION:

With the structural integrity of the containment not conforming to the above requirements, restore the structural integrity to within the limits within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.6.1 Containment Surfaces The structural integrity of the exposed accessible interior and exterior surfaces of the containment, including the liner plate, shall be determined during the shutdown for each Type A containment leakage rate test (reference Specification 4.6.1.2) by a visual inspection of these surfaces. This inspection shall be performed prior to the Type A containment leakage rate test to verify no apparent changes in appearance or other abnormal degradation.

4.6.1.6.2 Reports Any abnormal degradation of the containment structure detected during the above required inspections shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 15 days. This report shall include a description of the condition of the concrete, the inspection procedure, the tolerances on cracking, and the corrective actions taken.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.3 The isolation time of each testable power-operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cycling, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.6 La.

4.6.1.1d.



Amendment Nos. 73 & 72
August 10, 1992

## 3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

DELETE

### MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION AND BYPASS DEVICES

### LIMITING CONDITION FOR OPERATION

3.8.4.1 The thermal overload protection and bypass devices, integral with the motor starter, of each valve# used in safety systems shall be OPERABLE.

APPLICABILITY: Whenever the motor-operated valve is required to be OPERABLE.

ACTION:

With one or more of the thermal overload protection and/or bypass devices inoperable, declare the affected valve(s) inoperable and apply the appropriate ACTION Statement(s) for the affected valves.

### SURVEILLANCE REQUIREMENTS

4.8.4.1 The above required thermal overload protection and bypass devices shall be demonstrated OPERABLE:

a. At least once per 18 months, by the performance of a TRIP ACTUATION DEVICE OPERATIONAL TEST of the bypass circuitry for those thermal overload devices which are either:

   1) Continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing, or

   2) Normally in force during plant operation and bypassed under accident conditions.

b. At least once per 18 months by the performance of a CHANNEL CALIBRATION of a representative sample of at least 25% of:

   1) All thermal overload devices which are not bypassed, such that each non-bypassed device is calibrated at least once per 6 years, and

   2) All thermal overload devices which are continuously bypassed, such that each continuously bypassed device is calibrated and each valve is cycled through at least one complete cycle of full travel with the motor-operator when the thermal overload device is OPERABLE and not bypassed at least once per 6 years.

# See AD13.DC1 for List of Motor-Operated Valves Thermal Overload Protection and Bypass Devices



Amendment Nos. 79 & 78
May 1, 1993

DELETE

ELECTRICAL POWER SYSTEMS

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.2 For each containment penetration provided with a containment penetration overcurrent protective device(s), each device shall be OPERABLE.

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

ACTION:

With one or more of the above required containment penetration conductor overcurrent protective device(s) inoperable:

a. Restore the protective device(s) to OPERABLE status or deenergize the circuit(s) by tripping the associated protective device or racking out or removing the inoperable protective device within 72 hours, declare the affected system or component inoperable, and verify the associated protective device to be tripped or removed, or the inoperable protective device racked out or removed at least once per 7 days thereafter; or

b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.4.2 Protective devices required to be operable as containment penetration overcurrent protective devices shall be demonstrated OPERABLE:

a. At least once per 18 months:

1) By verifying that the medium voltage 12 kV circuit breakers are OPERABLE by selecting, on a rotating basis, at least 10% of the circuit breakers and performing the following:

a) A CHANNEL CALIBRATION of the associated protective relays,

b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breaker and overcurrent control circuit function as designed, and



Amendment Nos. 79 and 78
May 1, 1993

DELETE

SURVEILLANCE REQUIREMENTS (Continued)

c) For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

2) By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of "drawout" type circuit breakers shall consist of a CHANNEL CALIBRATION of the associated solid-state trip device for both the long-time delay trip element and the short-time delay element along with a breaker functional test. Testing of molded case circuit breakers shall consist of injecting a current with a value equal to 200% (for D.C. breakers) and 300% (for A.C. breakers) of the pickup of the time delay element and verifying that the circuit breaker operates within the time delay band for that current specified by the manufacturer. The instantaneous element of molded case circuit breakers shall be tested by injecting a current equal to -25%, +40% of the pickup value of the element and verifying that the circuit breaker trips with no intentional time delay. Circuit breakers found out-of-tolerance during functional testing shall be replaced prior to resuming operation. Circuit breakers that fail to trip magnetically before the withstand capability of the penetration conductor is reached shall be declared inoperable. Circuit breakers that fail to trip thermally before the manufacturer's maximum tolerance shall be declared inoperable. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested; and

3) By verifying that the thermal overload devices integral with the motor starters, used for penetration overcurrent protection, are OPERABLE by selecting a representative sample of at least 10% of the motor overload devices and performing a CHANNEL CALIBRATION. Motor overloads found inoperable shall be restored to OPERABLE status prior to resuming operation. For each motor overload device found inoperable, a CHANNEL CALIBRATION shall be performed on an additional representative sample of at least 10% of all the motor overload devices of the inoperable type until no more failures are found or a CHANNEL CALIBRATION has been performed on all motor overload devices of that type.

b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.



Amendment Nos. 79 and 78
May 1, 1993

3/4.3.3.3 SEISMIC INSTRUMENTATION ← Deleted

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix A of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12 "Instrumentation for Earthquakes."

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

BACKGROUND

The Remote Shutdown Instrumentation and Controls provide the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System allows extended operation in MODE 3 from outside the control room until such a time that either control is transferred back to the control room or a cooldown is initiated.

In the event that the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

The OPERABILITY of the remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible.



Amendment Nos. 94 and 93
October 2, 1994

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION (Continued)

performed only during a unit outage.) Operating experience demonstrates that remote shutdown control channels usually pass the Surveillance test when performed at the 18 month Frequency.

NOTE: A surveillance of the reactor trip breaker OPERABILITY is not required as part of the SURVEILLANCE REQUIREMENT for 4.3.3.5.2 since a TRIP ACTUATING DEVICE OPERATIONAL TEST of the reactor trip breakers is performed as part of the SURVEILLANCE REQUIREMENT for TS 3/4.3.1 (See Table 4.3-1 Item 21 and Note 10).

REFERENCES

1. 10 CFR 50, Appendix A, GDC 19.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. The normal plant instrument channels specified are suitable for use as post-accident instruments. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," May 1983, and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.7 CHLORINE DETECTION SYSTEMS ← Deleted

The OPERABILITY of the Chlorine Detection System ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," February 1975.

3/4.3.3.10 EXPLOSIVE GAS MONITORING INSTRUMENTATION

The explosive gas instrumentation is provided for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GASEOUS RADWASTE SYSTEM.

3/4.3.4 TURBINE OVERSPEED PROTECTION ← Deleted

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety related components, equipment or structures.

The quarterly valve test frequency required by Specification 4.3.4.1.2a, is based on Diablo Canyon operating experience and the results of an evaluation documented in WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," June 1987. The evaluation shows that for Diablo Canyon the probability of turbine missile generation is within the NRC acceptance criteria (letter from C. E. Rossi, USNRC, to J. A. Martin, Westinghouse, dated February 2, 1987) for turbine valve test intervals up to seven months.

## 3/4.6.1 CONTAINMENT

### 3/4.6.1.1 CONTAINMENT INTEGRITY

CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with the leakage rate limitation, will limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during accident conditions.

### 3/4.6.1.2 CONTAINMENT LEAKAGE ← Delete

The limitations on containment leakage rates specified in the Containment Leakage Rate Testing Program ensure that the total containment leakage volume will not exceed the value assumed in the safety analyses at the peak accident pressure, $P_a$. As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to 0.75 $L_a$ during performance of the periodic test to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring leakage rates as specified in the Containment Leakage Rate Testing Program is consistent with Regulatory Guide 1.163 dated September 1995, and the requirements of Option B of 10 CFR Part 50 Appendix J.

3/4.6.1.2 Deleted ← Add

~~3/4.6.1.3 CONTAINMENT AIR LOCKS~~

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provide assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

### 3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere of 3.5 psig, and (2) the containment peak pressure does not exceed the design pressure of 47 psig during LOCA conditions.

The maximum peak pressure expected to be obtained from a LOCA event is less than 47 psig, which is the maximum design pressure of containment. This includes the limit of 1.2 psig for initial positive containment pressure. The total pressure is less than design pressure and is consistent with the safety analyses.



Unit 1 - Amendment No. ~~65,99~~, 110
Unit 2 - Amendment No. ~~64,98~~, 109
MAR 1 1995

3/4.6.1.5 AIR TEMPERATURE

The limitations on containment average air temperature ensure that the overall containment average air temperature does not exceed the initial temperature condition assumed in the safety analysis for a LOCA.

3/4.6.1.6 ~~CONTAINMENT STRUCTURAL INTEGRITY~~ Deleted

~~This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the containment will withstand the maximum pressure in the event of a LOCA. The visual examination of the concrete, liner, and the Type A leakage test are sufficient to demonstrate this capability.~~

3/4.6.1.7 CONTAINMENT VENTILATION SYSTEM

Use of the containment purge lines is restricted to two of the three following lines: (1) a supply line, (2) an exhaust line of the purge system, and (3) the vacuum/pressure relief line to ensure that the SITE BOUNDARY dose guidelines of 10 CFR Part 100 would not be exceeded in the event of a loss-of-coolant accident during containment purging operations. The vacuum/pressure relief valves must be blocked to open no more than 50° because these valves have not yet been qualified to close under accident conditions.

Operation will be limited to 200 hours during a calendar year. The 200-hour limit shall not become effective until after initial criticality. The total time the Containment Purge (vent) System isolation valves may be open during MODES 1, 2, 3, and 4 in a calendar year is a function of anticipated need and operating experience.



Amendment Nos. 65 and 64
September 5, 1991

A.C. Sources, D.C. Sources, and ONSITE POWER DISTRIBUTION (Continued)

The Technical Specifications required minimum fuel oil in each EDG day tank is a contained quantity sufficient for EDG operation at full load for a nominal one-hour period. One hour is adequate time for an operator to take corrective action to restore the fuel oil supply to the affected day tank. The EDG day tank 31-day surveillance frequency is adequate to assure that a sufficient supply of fuel oil is available, since the transfer pumps auto-starts are at a level above the Technical Specification's minimum contained volume. Therefore, normal EDG operation will not result in day tank levels below the Technical Specifications minimum required volume. Additional assurance of sufficient day tank contained volume is provided by a low level alarm.

For proper operation of the EDGs, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators," Revision 1, October 1979, as supplemented by ANSI N195-1976, addresses the recommended fuel oil practices. The surveillance frequencies of Technical Specifications 4.8.1.1.2d. and 4.8.1.1.3b. for checking and removing accumulated water from the day tank and main storage tank, respectively, are established by Regulatory Guide 1.137, Revision 1. The Surveillance Requirements of Technical Specification 4.8.1.1.3e.1) for draining the fuel stored in the fuel oil storage tanks, removing accumulated sediment, and tank cleaning are in accordance with the recommendations of Regulatory Guide 1.137, Revision 1. Surveillance Requirements for the assurance of fuel oil quality are in accordance with the ASTM Standards specified in Technical Specification 4.8.1.1.3.

The Surveillance Requirements applicable to diesel generator fuel oil storage requires cleaning the fuel oil storage tanks on a 10-year frequency. Conducting this surveillance requires the tank to be taken out of service. For this infrequent event, the inventory in the remaining tank is sufficient to support operation of the emergency diesel generator to power the minimum required loads to maintain safe conditions for a time period of 4 days, considering one unit in Mode 1 through 6 operation and one unit in Mode 6 operation with at least 23 feet of water above the reactor vessel flange or with the reactor defueled.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES ← Deleted

The OPERABILITY of the motor operated valves thermal overload protection and bypass devices ensures that these devices will not prevent safety related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY of these devices are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

A list of the TS-controlled MOV thermal overload protection and bypass devices is maintained in the Diablo Canyon plant procedures. The administration of the list shall be conducted in accordance with Section 50.59 of 10 CFR Part 50 and the provisions in the Administrative Controls Section of the TS. Records of the changes to the valve list are maintained, and an annual report is made that includes a brief description of changes and a summary of the safety evaluation of each in accordance with 10 CFR 50.59.



Amendment Nos. 93 & 9
September 22, 1994

DELETE

ELECTRICAL EQUIPMENT PROTECTIVE DEVICES (Continued)

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The Surveillance Requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

A list of containment penetration conductor overcurrent protective devices, with information on location and size and equipment powered by the protected circuit, is maintained and controlled at the plant site. The list is limited to those overcurrent devices installed for the purpose of keeping circuit fault current below the penetration rating. It does not apply to other overcurrent devices associated with containment penetrations. The addition or deletion of any containment penetration conductor overcurrent protective device is governed by Section 50.59 of 10 CFR Part 50.



Amendment Nos. 93 & 92
September 22, 1994

# REVISED PROPOSED TECHNICAL SPECIFICATIONS PAGES FOR LAR 95-07 ATTACHMENT C

Instructions:

| Remove Enclosure C from LAR | Insert new Enclosure C into LAR |
|---|---|

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

BASES

BASES

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions, or

b. Bistable channels - the injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

c. Digital channels - the injection of a simulated signal into the channel as close to the sensor input to the process racks as practical to verify OPERABILITY including alarm and/or trip functions.

CONTAINMENT INTEGRITY

1.8 CONTAINMENT INTEGRITY shall exist when:

a. All penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or

2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

b. All equipment hatches are closed and sealed,

c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,

d. The containment leakage rates as determined by Surveillance Requirement 4.6.1.1c are within the limits listed in the Bases for Specification 3.6.1.1, and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATIONS

1.10 CORE ALTERATIONS shall be the movement or manipulation of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe conservative position.

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SURVEILLANCE REQUIREMENTS (Continued)

4.1.3.1.3 Prior to reactor criticality, verify that the rod drop time of the full-length shutdown and control rods is $\leq$ 2.7 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry, with $T_{AVG} \geq 541°F$, and all reactor coolant pumps operating:

a. For all rods following each removal of the reactor vessel head, and

b. For specifically affected individual rods following any maintenance on or modification to the Control Rod Drive System which could affect the drop time of those specific rods.

POSITION INDICATION SYSTEMS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.3.2 The Digital Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the control rod positions within ± 12 steps.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With a maximum of one digital rod position indicator per bank inoperable either:

1. Determine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and immediately after any motion of the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or

2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.

b. With a maximum of one demand position indicator per bank inoperable either:

1. Verify that all digital rod position indicators for the affected bank are OPERABLE and that the most withdrawn rod and the least withdrawn rod of the bank are within a maximum of 12 steps of each other at least once per 8 hours, or

2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.2 Each digital rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Digital Rod Position Indication System agree within 12 steps at least once per 12 hours except during time intervals when the rod position deviation monitor is inoperable, then compare the Demand Position Indication System and the Digital Rod Position Indication System at least once per 4 hours.

4.1.3.3 Each of the required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full range of rod travel at least once per 18 months.

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## 3/4.6 CONTAINMENT SYSTEMS

## 3/4.6.1 CONTAINMENT

### CONTAINMENT INTEGRITY

### LIMITING CONDITION FOR OPERATION

3.6.1.1 CONTAINMENT INTEGRITY shall be maintained.

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

ACTION:

Without CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

4.6.1.1 CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.

c. By performing containment leakage rate testing, except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days.

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SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.3 The isolation time of each testable power-operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cycling, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.1d. for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.6 $L_a$.

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3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

BACKGROUND

The Remote Shutdown Instrumentation and Controls provide the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System allows extended operation in MODE 3 from outside the control room until such a time that either control is transferred back to the control room or a cooldown is initiated.

In the event that the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

The OPERABILITY of the remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION (Continued)

performed only during a unit outage.) Operating experience demonstrates that remote shutdown control channels usually pass the Surveillance test when performed at the 18 month Frequency.

NOTE: A surveillance of the reactor trip breaker OPERABILITY is not required as part of the SURVEILLANCE REQUIREMENT for 4.3.3.5.2 since a TRIP ACTUATING DEVICE OPERATIONAL TEST of the reactor trip breakers is performed as part of the SURVEILLANCE REQUIREMENT for TS 3/4.3.1 (See Table 4.3-1 Item 21 and Note 10).

REFERENCES

1. 10 CFR 50, Appendix A, GDC 19.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. The normal plant instrument channels specified are suitable for use as post-accident instruments. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," May 1983, and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.7 Deleted

3/4.3.3.10 EXPLOSIVE GAS MONITORING INSTRUMENTATION

The explosive gas instrumentation is provided for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GASEOUS RADWASTE SYSTEM.

3/4.3.4 Deleted

## 3/4.6.1 CONTAINMENT

### 3/4.6.1.1 CONTAINMENT INTEGRITY

CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with the leakage rate limitation, will limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during accident conditions.

The limitations on containment leakage rates specified in the Containment Leakage Rate Testing Program ensure that the total containment leakage volume will not exceed the value assumed in the safety analyses at the peak accident pressure, $P_a$. As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to 0.75 $L_a$ during performance of the periodic test to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring leakage rates as specified in the Containment Leakage Rate Testing Program is consistent with Regulatory Guide 1.163 dated September 1995, and the requirements of Option B of 10 CFR Part 50 Appendix J.

### 3/4.6.1.2 Deleted

### 3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provide assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

### 3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere of 3.5 psig, and (2) the containment peak pressure does not exceed the design pressure of 47 psig during LOCA conditions.

The maximum peak pressure expected to be obtained from a LOCA event is less than 47 psig, which is the maximum design pressure of containment. This includes the limit of 1.2 psig for initial positive containment pressure. The total pressure is less than design pressure and is consistent with the safety analyses.

3/4.6.1.5 AIR TEMPERATURE

The limitations on containment average air temperature ensure that the overall containment average air temperature does not exceed the initial temperature condition assumed in the safety analysis for a LOCA.

3/4.6.1.6 Deleted

3/4.6.1.7 CONTAINMENT VENTILATION SYSTEM

Use of the containment purge lines is restricted to two of the three following lines: (1) a supply line, (2) an exhaust line of the purge system, and (3) the vacuum/pressure relief line to ensure that the SITE BOUNDARY dose guidelines of 10 CFR Part 100 would not be exceeded in the event of a loss-of-coolant accident during containment purging operations. The vacuum/pressure relief valves must be blocked to open no more than 50° because these valves have not yet been qualified to close under accident conditions.

Operation will be limited to 200 hours during a calendar year. The 200-hour limit shall not become effective until after initial criticality. The total time the Containment Purge (vent) System isolation valves may be open during MODES 1, 2, 3, and 4 in a calendar year is a function of anticipated need and operating experience.

A.C. Sources, D.C. Sources, and ONSITE POWER DISTRIBUTION (Continued)

The Technical Specifications required minimum fuel oil in each EDG day tank is a contained quantity sufficient for EDG operation at full load for a nominal one-hour period. One hour is adequate time for an operator to take corrective action to restore the fuel oil supply to the affected day tank. The EDG day tank 31-day surveillance frequency is adequate to assure that a sufficient supply of fuel oil is available, since the transfer pumps auto-starts are at a level above the Technical Specification's minimum contained volume. Therefore, normal EDG operation will not result in day tank levels below the Technical Specifications minimum required volume. Additional assurance of sufficient day tank contained volume is provided by a low level alarm.

For proper operation of the EDGs, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators," Revision 1, October 1979, as supplemented by ANSI N195-1976, addresses the recommended fuel oil practices. The surveillance frequencies of Technical Specifications 4.8.1.1.2d. and 4.8.1.1.3b. for checking and removing accumulated water from the day tank and main storage tank, respectively, are established by Regulatory Guide 1.137, Revision 1. The Surveillance Requirements of Technical Specification 4.8.1.1.3e.1) for draining the fuel stored in the fuel oil storage tanks, removing accumulated sediment, and tank cleaning are in accordance with the recommendations of Regulatory Guide 1.137, Revision 1. Surveillance Requirements for the assurance of fuel oil quality are in accordance with the ASTM Standards specified in Technical Specification 4.8.1.1.3.

The Surveillance Requirements applicable to diesel generator fuel oil storage requires cleaning the fuel oil storage tanks on a 10-year frequency. Conducting this surveillance requires the tank to be taken out of service. For this infrequent event, the inventory in the remaining tank is sufficient to support operation of the emergency diesel generator to power the minimum required loads to maintain safe conditions for a time period of 4 days, considering one unit in Mode 1 through 6 operation and one unit in Mode 6 operation with at least 23 feet of water above the reactor vessel flange or with the reactor defueled.

3/4.8.4 Deleted