

ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

CORRECTED PROPOSED TECHNICAL SPECIFICATION PAGE CHANGES

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PALISADES PLANT TECHNICAL SPECIFICATIONS
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1.4 MISCELLANEOUS DEFINITIONS

Operable

A system or component is operable if it is capable of fulfilling its design functions.

Operating

A system or component is operating if it is performing its design functions.

Control Rods

All full-length shutdown and regulating rods.

Containment Integrity

Containment integrity is defined to exist when all of the following are true:

- a. All nonautomatic containment isolation valves and blind flanges are closed (operable) except as noted in Table 3.6.1. /
- b. The equipment door is properly closed and sealed.
- c. At least one door in each personnel air lock is properly closed and sealed.
- d. All automatic containment isolation valves are operable (as demonstrated by satisfying isolation times specified in Table 3.6.1 and leakage criterion in Specification 4.5.2) or are locked closed. /
- e. The uncontrolled containment leakage satisfies Specification 4.5.1. /

Dose Equivalent I-131

Dose Equivalent I-131 shall be that concentration of I-131 (uC/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

E - Average Disintegration Energy

E shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MEV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total noniodine activity in the coolant.

1.4 MISCELLANEOUS DEFINITIONS (Continued)

Safety

Safety as used in these Technical Specifications refers to those safety issues related to the nuclear process and, for example, does not encompass OSHA considerations.

Reportable Event

A reportable event shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50.

(Note - no changes in text, included for continuity only)

CONTAINMENT SYSTEM

Applicability

Applies to the reactor containment building.

Objective

To assure the integrity of the reactor containment building.

Specifications

3.6.1 Containment Integrity

- a. Containment integrity as defined in Specification 1.4 shall not be violated unless the reactor is in the cold shutdown condition. /
- b. Containment integrity shall not be violated when the reactor vessel head is removed unless the boron concentration is greater than refueling concentration. /
- c. Except for testing one rod at a time, positive reactivity changes shall not be made by control rod motion or boron dilution to less than cold shutdown boron concentration unless the containment integrity is intact. /

ACTION: /

With one or more containment isolation valve(s) inoperable (including during performance of valve testing), maintain at least one isolation valve operable in each affected penetration that is open and either: /

- a. Restore the inoperable valve(s) to operable status within 4 hours, or /
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or /
- c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or /
- d. Be in at least hot shutdown within the next 6 hours and in cold shutdown within the following 30 hours. /

BASIS

The operability of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. /

3.6 CONTAINMENT SYSTEM (Continued)

3.6.1 BASIS (Continued)

Containment isolation ensures that the release of radioactive material to the environment will be consistent with the assumptions used in Section 14 events of the Palisades FSAR. /
/
/

The above Action requirements provide time in which troubleshooting, repairs and pressure testing of isolation valves may occur. /
/
/

TABLE 3.6.1
CONTAINMENT PENETRATIONS AND VALVES

| PEN NUMBER | SYSTEM NAME AND SERVICE LINE SIZE | VALVE ID NO | REMARKS |
|------------|---|----------------------|--|
| 1A | PURGE AIR EXHAUST (8") | CV-1805 CV-1806 | Auto isolation valve; required closure time = 25 seconds |
| 1C | PURGE AIR EXHAUST (8") | CV-1807 CV-1808 | Auto isolation valve; required closure time = 25 seconds |
| 5 | S/G (E-50A) BOTTOM BLOWDOWN (2") | CV-0767 CV-0771 | Auto isolation valve; required closure time = 25 seconds |
| 6 | S/G (E-50B) BOTTOM BLOWDOWN (2") | CV-0768 CV-0770 | Auto isolation valve; required closure time = 25 seconds |
| 11 | CONDENSATE TO SHIELD COOLING SURGE TANK (1 1/2") | CV-0939 CK-CD401 | Auto isolation valve; required closure time = 25 seconds |
| 14 | COMPONENT COOLING WATER IN (10") | CV-0910 CK-CC0910 | Auto isolation valve; required closure time = 25 seconds |
| 15 | COMPONENT COOLING WATER OUT (10") | CV-0911 CV-0940 | Auto isolation valve; required closure time = 25 seconds |
| 16 | S/G (E-50A) SURFACE BLOWDOWN (2") | CV-0739 | Auto isolation valve; required closure time = 25 seconds |

3-40b

Amendment No. (#)
(Date)

TABLE 3.6.1
CONTAINMENT PENETRATIONS AND VALVES

| PEN NUMBER | SYSTEM NAME AND SERVICE LINE SIZE | VALVE ID NO | REMARKS |
|------------|---|----------------------------------|--|
| 21 | H ₂ MONITOR (1/2") | SV-2415A SV-2415B | Auto isolation valve; required closure time = 25 seconds |
| 21A | H ₂ MONITOR (1/2") | SV-2413A SV-2413B | Auto isolation valve; required closure time = 25 seconds |
| 25 | CLEAN WASTE RECEIVER TANK VENT TO STACK (2") | CV-1064 CV-1065 | Auto isolation valve; required closure time = 25 seconds |
| 26 | NITROGEN TO CONTAINMENT (1") | CV-1358 CK-N ₂ 400 | Auto isolation valve; required closure time = 25 seconds |
| 33 | SAFETY INJECTION TANK DRAIN (2") | MV-ES3234 MV-ES3234A | These valves are allowed to be open for testing/sampling no more than 4 hours per sample |
| 36 | LETDOWN TO PURIFICATION ION EXCHANGER (2") | CV-2009 | Auto isolation valve; required closure time = 25 seconds |
| 37 | PRIMARY SYSTEM DRAIN TANK PUMP RECIRC (1 1/2") | CV-1001 CK-CRW403 | Auto isolation valve; required closure time = 25 seconds |
| 38 | CONDENSATE RETURN FROM STEAM HEATING UNITS (2") | CV-1501 CV-1502 | Auto isolation valve; required closure time = 25 seconds |

3-40c

Amendment No. (#)
(Date)

TABLE 3.6.1
CONTAINMENT PENETRATIONS AND VALVES

| PEN NUMBER | SYSTEM NAME AND SERVICE LINE SIZE | VALVE ID NO | REMARKS |
|------------|---|---|--|
| 39 | CONTAINMENT HEATING SYSTEM (4") | CV-1503 Blind flange in place during power operation | Auto isolation valve; required closure time = 25 seconds |
| 40 | PRI-COOLANT SYSTEM SAMPLE LINE (1/2") | CV-1910 CV-1911 | Auto isolation valve; required closure time = 25 seconds |
| 40A | H ₂ MONITOR (1/2") | SV-2414A SV-2414B | Auto isolation valve; required closure time = 25 seconds |
| 40B | H ₂ MONITOR (1/2") | SV-2412B SV-2412B | Auto isolation valve; required closure time = 25 seconds |
| 41 | DEGASIFIER PUMP DISCHARGE (3") | CV-1004 CK-CRW407 | Auto isolation valve; required closure time = 25 seconds |
| 42 | DEMINERALIZED WATER TO QUENCH TANK (2") | CV-0155 CK-V0155B | Auto isolation valve; required closure time = 25 seconds |
| 44 | CONTROLLED BLEED-OFF FROM RCP'S (3/4") | CV-2083 CV-2099 | Auto isolation valve; required closure time = 25 seconds |
| 46 | CONTAINMENT VENT HEADER (4") | CV-1101 CV-1102 | Auto isolation valve; required closure time = 25 seconds |

3-40d

Amendment No. (#)
(Date)

TABLE 3.6.1
CONTAINMENT PENETRATIONS AND VALVES

| PEN NUMBER | SYSTEM NAME AND SERVICE LINE SIZE | VALVE ID NO | REMARKS |
|------------|--|----------------------|--|
| 47 | PRIMARY SYSTEM DRAIN TANK PUMP SUCTION (4") | CV-1002 CV-1007 | Auto isolation valve; required closure time = 25 seconds |
| 49 | CLEAN WASTE RECEIVER TANK CIRCULATION PUMP SUCTION (3") | CV-1038 CV-1036 | Auto isolation valve; required closure time = 25 seconds |
| 52 | CONTAINMENT SUMP DRAIN TO DIRTY WASTE TANK (4") | CV-1103 CV-1104 | Auto isolation valve; required closure time = 25 seconds |
| 55 | S/G (E-50B) SURFACE BLOWDOWN (2") | CV-0738 | Auto isolation valve; required closure time = 25 seconds |
| 67 | CLEAN WASTE RECEIVER TANK PUMP RECIRC (3") | CV-1037 CK-CRW408 | Auto isolation valve; required closure time = 25 seconds |
| 68 | AIR SUPPLY TO AIR ROOM (12") | CV-1813 CV-1814 | Auto isolation valve; required closure time = 25 seconds |
| 69 | CLEAN WASTE RECEIVER TANK PUMP SUCTION (4") | CV-1045 CV-1044 | Auto isolation valve; required closure time = 25 seconds |

3-40e

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3.6 CONTAINMENT SYSTEM (Continued)

~~3.6.2~~ The internal pressure shall not exceed 3 psig (except for containment leak rate tests).

3.6.3 Prior to the reactor going critical after a refueling outage, an administrative check will be made to confirm that all "locked-closed" manual containment isolation valves are closed and locked.

BASIS

The primary coolant system conditions of cold shutdown assure that no steam will be formed and, hence, there would be no pressure buildup in the containment if the primary coolant system ruptures. The shutdown margins are selected based on the type of activities that are being carried out. The refueling boron concentration provides shutdown margin which precludes criticality under any circumstances.

Regarding internal pressure limitations, the containment design pressure of 55 psig would not be exceeded if the internal pressure before a major loss-of-coolant accident were as much as 4 psig. ⁽¹⁾

The containment integrity will be protected if the visual check of all "locked-closed" manual isolation valves to verify them closed is made prior to plant start-up after an extended outage where one or more valves could inadvertently be left open.

References

(1) FSAR, Section 14.18.

3.6.4 Two independent containment hydrogen recombiners shall be operable when the reactor is at power or at hot standby. With one hydrogen recombiner system inoperable, restore the inoperable system to operable status within 30 days or be in at least hot shutdown within the next 12 hours.

3.6.5 Containment Purge and Ventilation Systems

- a. The containment purge and ventilation isolation valves CV 1805, CV 1806, CV 1807 CV 1808 and air room supply isolation valves CV 1813 and CV 1814 shall be electrically locked closed whenever the reactor is in a HOT SHUTDOWN, HOT STANDBY, or POWER OPERATION condition.
- b. With one containment purge exhaust isolation valve or one air room supply isolation valve open, close the open valve within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

BASIS

The containment purge and ventilation isolation valves are required to be closed in conditions above COLD SHUTDOWN, until it can be demonstrated that the valves meet the requirements of Standard Review Plan 6.2.4 and Branch Technical Position CSB 6-4. To ensure that the valves are closed and that the seals have not degraded, a between the valves leak rate test will be performed. Maintaining these valves closed during plant operations ensures that excessive quantities of radioactive materials will not be released via the containment purge or ventilation systems as detailed in a & b above. /

The current method of maintaining Containment Building pressure below one psig is by the removal of non-condensable gases from the Containment Building through a clean waste receiver tank whose rupture disc has been removed and then ultimately to the Plant stack. This path is isolated by two automatic isolation valves prior to entry into the Plant stack. /

4.5 CONTAINMENT TESTS (Contd)

~~4.5.4~~ Surveillance for Prestressing System (Contd)

- f. If any element of the prestressing system fails to meet the acceptance criteria of 4.5.4e., the reporting provision of Specification 6.9.2 shall apply.

4.5.5 End Anchorage Concrete Surveillance

- a. A VT-1 visual examination shall be performed on the end anchorage concrete surface at the surveillance tendon anchor points for signs of cracking, popouts, spalling, or corrosion. Concrete cracks having widths greater than 0.010 shall be evaluated and documented.
- b. The end anchorage concrete surveillance inspection interval shall be the same as tendon surveillance interval.
- c. Acceptance criteria
 - 1. Crack widths shall be measured by using optical comparators or wire feeler gauge. Movements shall be measured by using demountable mechanical extensometers.
 - 2. Concrete anchorage areas are acceptable if no concrete cracks are wider than 0.010 inches and no signs of new or progressive deterioration since the previous inspection are found.
 - 3. Concrete surface conditions exceeding those stated in 4.5.5c.2 above shall be evaluated for the effect on tendon and containment structural integrity. The results of evaluation shall be included in the final surveillance report.

4.5.6 Containment Isolation Valves

- a. The isolation valves shall be demonstrated operable by performance of a cycling test and verification of isolation time for auto isolation valves prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit. /
/
/
/
/
/

4.5 CONTAINMENT TESTS (Continued)

4.5.6 Containment Isolation Valves (Continued)

- b. Each isolation valve shall be demonstrated operable by verifying that on each containment isolation right channel or left channel test signal, applicable isolation valves actuate to their required position during cold shutdown or at least once per refueling cycle. /
- c. The isolation time of each power operated or automatic valve shall be determined to be within its limit as specified in Table 3.6.1 when tested in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. /

4.5.7 Deleted /

4.5.8 Dome Delamination Surveillance

If, as a result of a prestressing system inspection under Section 4.5.4, corrective retensioning of five percent (8) or more of the total number of dome tendons is necessary to restore their liftoff forces to within the limits of Specification 4.5.4, a dome delamination inspection shall be performed within 90 days following such corrective retensioning. The results of this inspection shall be reported to the NRC.