ATTACHMENT (1)
pg 1 of 3

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 (one of which may be a swing diesel generator capable of serving either Unit 1 or Unit 2) each with:

1. Separate day fuel tanks containing a minimum volume of 375 gallons of fuel,

2. A common fuel storage system consisting of two independent storage tanks each containing a minimum volume of 18,250 gallons of fuel, and

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one 500 Kv 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 X and two diesel generators to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one 500 Kv 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 X 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.

*The 69 Kv SMECo offsite power circuit described in the January 14, 1977 Safety Evaluation may be substituted for one 500 Kv offsite power circuit.

SURVEILLANCE REQUIREMENTS

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

a. Demonstrated OPERABLE, as follows:

1. For each 500 KV offsite circuit, at least once per 7 days by verifying correct breaker alignments and indicated power availability,

2. For the 69 KV SMECo offsite power circuit, within one hour of ~~use~~ substitution for a 500 KV offsite power circuit, and at least once per 8 hours thereafter during use by verifying correct breaker alignments and 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:

ELECTRICAL POWER SYSTEMS

D. C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.3 The following D. C. bus trains shall be energized and OPERABLE:

a. 125-volt D.C. bus No. 11, a 125-volt D. C. battery bank and a full capacity charger.

b. 125-volt D.C. bus No. 12, a 125-volt D. C. battery bank and a full capacity charger.

c. 125-volt D.C. bus No. 21, a 125-volt D. C. battery bank and a full capacity charger.

d. 125-volt D.C. bus No. 22, a 125-volt D. C. battery bank and a full capacity charger.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one 125-volt D.C. bus inoperable, restore the inoperable bus 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.

b. With one 125-volt D.C. battery inoperable except during surveillance testing per specifications 4.8.2.3.2.c.2, 4.8.2.3.2.d and 4.8.2.3.2.e/f:

1. Restore the inoperable battery to OPERABLE status within 2 hours, or replace the inoperable battery with the OPERABLE Reserve Battery within the next 2 hours, or

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

c. With both 125-volt D.C. battery chargers from the same D.C. bus inoperable, except during surveillance testing per specification 4.8.2.3.2.d, restore at least one 125-volt D.C. battery charger 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.

d. With one 125-volt D.C. battery inoperable during surveillance testing of the battery per Specification 4.8.2.3.2.c.2 and 4.8.2.3.2.d.2, operation may continue provided the associated bus is being powered by an operable charger and Reserve Battery.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

e. With one 125-volt D.C. battery inoperable during surveillance testing of the battery per Specification 4.8.2.3.2.~~f~~., operation may continue provided the associated bus is being powered by the Reserve Battery and an OPERABLE charger.

f. With single cells having a voltage decrease of more than 0.10 volts from the previous performance discharge test (4.8.2.3.2.~~g~~) value, but still ≥ 2.10 volts per surveillance requirement 4.8.2.3.2.b.1., either restore/replace cells or replace the affected battery with the Reserve Battery within 24 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.3.1 Each D.C. bus train shall be determined OPERABLE and energized at least once per 7 days by verifying correct breaker alignment and indicated power availability.

4.8.2.3.2 Each 125-volt battery bank and charger and the Reserve Battery shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that:

1. The electrolyte level of each pilot cell is between the minimum and maximum level indication marks.

2. The pilot cell specific gravity, corrected to 77°F and full electrolyte level is ≥ 1.200.

3. The pilot cell voltage is ≥ 2.10 volts.

4. The overall battery voltage is ≥ 125 volts.

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is ≥ 2.10 volts under float charge and has not decreased more than 0.10 volts from the value observed during the latest performance discharge test (4.8.2.3.2.~~g~~).

2. The specific gravity, corrected to 77°F and full electrolyte level, of each connected cell is ≥ 1.200 and has not decreased more than 0.02 from the value observed during the previous test.

3. The electrolyte level of each connected cell is between the minimum and maximum level indication marks.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by verifying that:

1. The cells, cell plates and battery racks show no visual indication of physical damage or deterioration.

2. The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material.

d. At least once per 18 months by verifying that the battery capacity, with the charger disconnected, is adequate to either:

1. Supply and maintain in OPERABLE status all of the actual emergency loads for at least 2 hours when the battery is subjected to a battery service test. ~~or~~ At the completion of this test surveillance 4.8.2.3.2.e shall be performed for the affected battery. The battery shall be charged to at least 95% capacity in ≤ 24 hours. or

2. Supply a dummy load of the following profile for at least 2 hours while maintaining the battery terminal voltage ≥ 100 volts:

a) Batteries 11, 21 and Reserve:

First minute ≥ 827 amperes
Next 1 minute ≥ 461 amperes
Next 117 minutes ≥ 251 amperes
Next 1 minute ≥ 325 amperes

b) Batteries 12 and 22:

First minute ≥ 193 amperes
Next 119 minutes ≥ 160 amperes

e. ~~At the completion of this battery test,~~ At least once per 18 months, the battery charger* shall be demonstrated capable of recharging the battery at a rate of ≤ 400 amperes while supplying normal D. C. loads or equivalent or greater dummy load ~~and the battery shall be charged to at least 95% capacity in ≤ 24 hours.~~

f. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test shall be performed subsequent to the satisfactory completion of the required battery service test.

*Not applicable to the charger associated with the Reserve Battery.

REACTOR COOLANT SYSTEM

REACTOR COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.13 One reactor coolant system vent path consisting of two solenoid valves in series shall be OPERABLE and closed * at each of the following locations:

a. Reactor Vessel Head

b. Pressurizer Vapor Space

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one of the above reactor coolant system vent paths inoperable, maintain the in operable vent path closed with power removed from the valve actuator of the solenoid valves in the inoperable vent path. With the above ACTION completed, the provisions of Specification 3.0.4. are not applicable; and within 72 hours, either:

1. Restore the inoperable vent path to OPERABLE status, or
2. Verify at least one PORV and its associated flow path is OPERABLE. Restore the inoperable vent path to OPERABLE status prior to entering MODE 2 from MODE 3 following the next COLD SHUTDOWN

* The solenoid valves in the vent path for the Pressurizer Vapor Space may be opened for short periods of time under administrative control.

ACTION (Cont'd):

b. With both of the above vent paths inoperable; maintain the inoperable vent paths closed with power removed from the valve actuators of all the solenoid valves in the inoperable vent paths, and within 24 hours, either:

1. Restore at least one inoperable vent path to OPERABLE status, or
2. Verify at least one PORV and its associated flow path is OPERABL and restore both inoperable vent paths to OPERABLE status prior to entering MODE 2 from MODE 3 following the next COLD SHUTDOWN

With ACTION b.1 or b.2 above completed, the provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.13.1 Each reactor coolant system vent path shall be demonstrated OPERABLE by testing each valve in the vent path per Specification 4.0.5.

4.4.13.2 Each reactor coolant system vent path shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying all manual isolation valves in each vent path are locked in the Open position.
b. Verifying flow through the reactor coolant system vent paths during venting.

3.4.13 Reactor Coolant System Vents

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

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

The functions, capabilities, and testing requirements of the reactor coolant system vent systems are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements", November 1980.

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICUL TO REMOVE (Yes or No)
2-11-1	SRW DISCH. FM #22 CONTAINMENT COOLER 30'-7"	A	No	No
2-11-2	SRW DISCH. FM #22 CONTAINMENT COOLER 30'-7"	A	No	No
2-11-3	SRW DISCH. FM #22 CONTAINMENT COOLER 25'	A	No	Yes
2-11-4	SERVICE WATER FROM TURBINE BLDG. 22'-9"	A	No	No
~~2-11-5~~	~~SERVICE WATER PUMP #21 SUCTION 16'-7"~~	A	No	No
2-11-6	SERVICE WATER PUMP #23 SUCTION 12'-8"	A	No	No
2-11-7	SERVICE WATER PUMP #23 SUCTION 12'-11"	A	No	No
2-11-8	SERVICE WATER FROM TURBINE BLDG. 19'-7"	A	No	No
~~2-11-9~~	~~SERVICE WATER PUMP DISCH. HEADER 10'-6"~~	A	No	No
2-11-10	SRW DISCH. FM. CONTAINMENT COOLERS 13'-5"	A	No	No

CALVERT CLIFFS-UNIT 2

3/4 7-27

Amendment No. ~~AUG 13 1976~~

ATTACHMENT (4)
PG 1 of 9

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICUL TO REMOVE (Yes or No)
2-11-11	SERVICE WATER PUMP DISCH. HEADER 11'-8"	A	No	No
~~2-11-12~~	~~SERVICE WATER PUMP DISCH. HEADER 10'-6"~~	~~A~~	~~No~~	~~No~~
~~2-11-13~~	~~SERVICE WATER PUMP DISCH. HEADER 10'-6"~~	~~A~~	~~No~~	~~No~~
2-11-14	SERVICE WATER PUMP DISCH. HEADER 10'-6"	A	No	No
2-11-15	SERVICE WATER PUMP DISCH. HEADER 10'-6"	A	No	No
2-11-16	SERVICE WATER PUMP #21 DISCHARGE 8'-7"	A	No	No
2-11-16A	SERVICE WATER PUMP #21 DISCHARGE 8'-7"	A	No	No
~~2-11-17~~	~~SERVICE WATER PUMP #22 DISCHARGE 8'-6"~~	~~A~~	~~No~~	~~No~~
~~2-11-17A~~	~~SERVICE WATER PUMP #22 DISCHARGE 8'-6"~~	~~A~~	~~No~~	~~No~~
~~2-11-18~~	~~SERVICE WATER PUMP #21 SUCTION 12'-1"~~	~~A~~	~~No~~	~~No~~

CALVERT CLIFFS-UNIT 2

3/4 7-28

Amendment No. ~~AUG 13 1976~~

ATTACHMENT (4)
PG 2 of 9

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
~~2-11-18A~~	~~SERVICE WATER PUMP #21 SUCTION 16' 3"~~	A	No	No
~~2-11-19~~	~~SERVICE WATER PUMP #21 SUCTION 16'-3"~~	A	No	No
~~2-11-19A~~	~~SERVICE WATER PUMP #21 SUCTION 16' 3"~~	A	No	No
~~2-11-20~~	~~SERVICE WATER PUMP #21 SUCTION 11'-8"~~	A	No	No
~~2-11-20A~~	~~SERVICE WATER PUMP #22 SUCTION 11' 8"~~	A	No	No
2-11-21	SERVICE WATER PUMP #22 SUCTION 10'-9"	A	No	No
~~2-11-22~~	~~SERVICE WATER PUMP #22 SUCTION 9' 0"~~	A	No	No
~~2-11-22A~~	~~SERVICE WATER PUMP #22 SUCTION 9'-0"~~	A	No	No
~~2-11-23~~	~~SERVICE WATER PUMP #23 SUCTION 12'-3"~~	A	No	No
~~2-11-23A~~	~~SERVICE WATER PUMP #23 SUCTION 12'-3"~~	A	No	No

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3/4 7-29

Amendment No. ~~AUG 1 5 1975~~

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICUL TO REMOVE (Yes or No)
~~2-11-24~~	~~SERVICE WATER PUMP #23 SUCTION 12'-3"~~	~~A~~	~~No~~	~~No~~
~~2-11-24A~~	~~SERVICE WATER PUMP #23 SUCTION 12'-3"~~	~~A~~	~~No~~	~~No~~
2-12-1	OUTLET #21 SERVICE WATER HEAT EXCHG. 11'-5"	A	No	No
2-12-2	OUTLET #22 SERVICE WATER HEAT EXCHG. 11'-2"	A	No	No
2-12-3	OUTLET #22 COMP. COOLING HEAT EXCHG. 14'-9"	A	No	Yes
2-12-4	OUTLET #21 COMP. COOLING HEAT EXCHG. 16'-6"	A	No	Yes
2-15-1	SUCTION HEADER-COMP. COOLING PUMPS 24'-9"	A	No	Yes
2-15-2	SUCTION HEADER-COMP. COOLING PUMPS 22'-8"	A	No	Yes
2-15-3	SUCTION HEADER-COMP. COOLING PUMPS 22'-7"	A	No	Yes
2-15-4	COMP. COOLING PUMPS - DISCH. HEADER 19'-8"	A	No	Yes

Amendment No. ~~AUG 1 3 1978~~

ATTACHMENT (4) Pg 4 of 9

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-15-5	COMP. COOLING PUMP #22 DISCH. 18'-6"	A	No	Yes
2-15-6	COMP. COOLING PUMPS DISCH. HEADER 14'-5"	A	No	Yes
2-15-7	COMP. COOLING PUMPS DISCH. HEADER 14'-5"	A	No	Yes
2-15-8	COMP. COOLING TO LIQUID WASTE EVAP. 64'	A	No	No
2-15-9	COMP. COOLING TO LIQUID WASTE EVAP. 64'	A	No	No
2-15-10	COMP. COOLING TO LIQUID WASTE EVAP. 64'	A	No	No
2-36-1	STEAM SUPPLY TO #22 AUX. SGFP 12'	A	No	No
2-36-1A	STEAM SUPPLY TO #22 AUX. SGFP 12'	A	No	No
~~2-36-2~~	~~STEAM SUPPLY TO #21 AUX. SGFP 12'~~	~~A~~	~~No~~	~~No~~
~~2-36-2A~~	~~STEAM SUPPLY TO #21 AUX. SGFP 12'~~	~~A~~	~~No~~	~~No~~
2-36-3	UNIT 2 AFW PUMP ROOM 18'	A	No	No
2-36-4	AFW INLET TO #21 STEAM GENERATOR 65'	I	Yes	No
2-36-4A	AFW INLET TO #21 STEAM GENERATOR 65'	I	Yes	No
2-36-5	AFW INLET TO #22 STEAM GENERATOR 65'	I	Yes	No

CALVERT CLIFFS - UNIT 2

3/4 7-31

Amendment No. 23, 47, 74

Attachment (2)
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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICUL TO REMOVE (Yes or No)
2-52-62	SHUTDOWN COOLING TO LPSI RETURN HDR 31'-0"	I	Yes	No
2-52-63	SHUTDOWN COOLING TO LPSI RETURN HDR 25'-0"	I	Yes	No
2-52-64	SHUTDOWN COOLING TO LPSI RETURN HDR 20'-0"	I	Yes	No
2-52-65	SHUTDOWN COOLING TO LPSI RETURN HDR 31'-0"	I	Yes	No
2-52-66	SHUTDOWN COOLING TO LPSI RETURN HDR 31'-0"	I	Yes	No
2-52-67	SHUTDOWN COOLING TO LPSI RETURN HDR 20'-0"	I	Yes	No
2-52-68	S.I. LOOP 21B CHECK VALVE LEAKAGE 47'-2"	I	Yes	No
2-52-69	S.I. LOOP 21A CHECK VALVE LEAKAGE 48'-10"	I	Yes	No
2-52-70	REFUELING WATER TANK (UPPER PENETRATION) 57'-6"	I	Yes	No
~~2-52-71~~	~~HPSI PUMP #22 SUCTION 5'-4"~~	~~I~~	~~Yes~~	~~No~~

~~AUG 19 1976~~

Amendment No.

ATTACHMENT (1)
PG 6 of 9

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-60-7	SERVICE WATER OUTLET CONT. COOLER #23 65'	I	Yes	No
2-60-8	SERVICE WATER INLET CONT. COOLER #21 43'	I	Yes	No
2-60-9	SPRAY TO CONT. CHARCOAL FILTER #23 66'	I	Yes	No
~~2-60-10~~	~~SPRAY TO CONT. CHARCOAL FILTER #23 66'~~	~~I~~	~~Yes~~	~~No~~
2-60-12	SPRAY TO CONT. CHARCOAL FILTER #23 72'	I	Yes	No
2-60-14	SPRAY TO CONT. CHARCOAL FILTER #23 66'	I	Yes	No
2-60-15	SPRAY TO CONT. CHARCOAL FILTER #23 66'	I	Yes	No
2-60-18	SPRAY TO CONT. CHARCOAL FILTER #23 68'	I	Yes	No

ATTACHMENT (4)
PG 7 of 9

CALVERT CLIFFS-UNIT 2

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Amendment No.

ATTACHMENT (4)
pg 8 of 9

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-60-18A	SPRAY TO CONT. CHARCOAL FILTER #23 66'	I	Yes	No
~~2-60-20~~	~~SPRAY HDR TO CONT. CHARCOAL FILTERS 3'~~	~~I~~	~~Yes~~	~~No~~
2-60-21	SERVICE WATER OUTLET CONT. COOLER #23 67'	I	Yes	No
2-60-22	SERVICE WATER OUTLET CONT. COOLER #21 43'	I	Yes	No
2-60-22A	SERVICE WATER OUTLET CONT. COOLER #21 43'	I	Yes	No
2-60-24	SERVICE WATER OUTLET CONT. COOLER #21 44'	I	Yes	No
2-60-24A	SERVICE WATER OUTLET CONT. COOLER #21 44'	I	Yes	No
2-60-26	SERVICE WATER INLET CONT. COOLER #21 44'	I	Yes	No
2-60-26A	SERVICE WATER INLET CONT. COOLER #21 44'	I	Yes	No

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-61-16	CONT. SPRAY HDR FOR SPRAY RING #22 70'	I	Yes	No
~~2-61-17~~	~~CONT. SPRAY HDR FOR SPRAY RING #22 46'~~	~~I~~	~~Yes~~	~~Yes~~
2-61-18	CONT. SPRAY HDR FOR SPRAY RING #22 39'	I	Yes	Yes

Amendment No. 7

3/4 7-44

Containment Systems 3/4.7

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) that the snubber installation exhibits no visual indications of detachment from foundations or supporting structures. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and/or (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.7.8.d, as applicable. When the fluid port of a hydraulic snubber* is found to be uncovered, the snubber shall be determined inoperable unless it can be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the component(s) which are supported by the snubber(s). The scope of this engineering evaluation shall be consistent with the licensee's engineering judgment and may be limited to a visual inspection of the supported component(s). The purpose of this engineering evaluation shall be to determine if the component(s) supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

c. Functional Tests

At least once per 18 months during shutdown, a representative sample of 10% of the snubbers in use in the plant shall be functionally tested either in place or in a bench test.*¶ For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8.d, an additional 5% of the snubbers shall be functionally tested until no more failures are found or until all snubbers have been functionally tested.

~~* This requirement is also applicable to snubbers served by a common hydraulic reservoir.~~

*¶ The Steam Generator snubbers 2-63-11 through 2-63-26 need not be functionally tested until the refueling outage following June 30, 1985.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

e. Snubber Service Life Monitoring*

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.m.

At least once per 18 months, the installation and maintenance records for each snubber listed in Table 3.7-4 shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review.** If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be re-evaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement, or reconditioning shall be indicated in the records.

~~f. Snubbers Served by a Common Hydraulic Reservoir~~

~~Snubbers served by a common hydraulic reservoir are indicated by a bracket in Table 3.7-4. All reservoirs serving more than one snubber shall be inspected to ensure adequate hydraulic level:~~

~~1. Within 7 days after reactor startup following a major outage or following any maintenance in the immediate virinity of these snubbers, reservoirs, or associated hydraulic piping; and~~

~~2. Every 31 days ± 25%.~~

* The Snubber Service Life Program shall be fully implemented by January 1, 1983.

**The provisions of Specification 4.0.2 are applicable.

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-61-19	CONT. SPRAY HDR FOR SPRAY RING #22 39'	I	Yes	Yes
2-63-1	S/G #22 BLOWDOWN LINE 34' 11'	A	No	No
2-63-2	S/G #22 BLOWDOWN LINE 27' 10'	A	No	No
2-63-3	NITROGEN LINE TO S/G #22 77'6"	I	Yes	No
2-63-4	NITROGEN LINE TO S/G #22 77'6"	I	Yes	No
2-63-5	S/G #21 SURFACE BLOWDOWN LINE 76'9"	I	Yes	No
2-63-6	S/G #21 SURFACE BLOWDOWN LINE 76'9"	I	Yes	No
2-63-11	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-12	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-13	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-14	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-15	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-16	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-17	STEAM GENERATOR #21 75'	I	Yes	Yes

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2-63-18	STEAM GENERATOR #21 75'	I	Yes	Yes
2-63-19	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-20	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-21	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-22	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-23	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-24	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-25	STEAM GENERATOR #22 75'	I	Yes	Yes
2-63-26	STEAM GENERATOR #22 75'	I	Yes	Yes
2-64-1	PRESSURIZER REL PIPING UPSTREAM MOV 403 81'6"	I	Yes	No
2-64-2	PRESSURIZER REL PIPING TO RV 200 79'11"	I	Yes	No
2-64-3	PRESSURIZER REL PIPING DOWNSTREAM MOV 405 84'3"	I	Yes	No

CALVERT CLIFFS-UNIT 2

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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 (one of which may be a swing diesel generator capable of serving either Unit 1 or Unit 2) each with:

1. Separate day fuel tanks containing a minimum volume of 375 gallons of fuel,

2. A common fuel storage system consisting of two independent storage tanks each containing a minimum volume of 18,250 gallons of fuel*, and

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one 500 Kv 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 SHUTDOWN within the following 30 hours.

b. With one 500 Kv 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.

*The 69 Kv SMECo offsite power circuit described in the January 14, 1977 Safety Evaluation may be substituted for one 500 Kv offsite power circuit.

* See attached

For the duration of the April 1984 Unit 2 refueling outage, with Unit 2 in MODE 5 or 6, Technical Specification 3.8.1.1 b(2) will be satisfied by:

> A common fuel oil storage system consisting of one seismic class 1 fuel oil storage tank with a minimum volume of 36,500 gallons of fuel and an alternate fuel source with 8,000 gallons of fuel connected in such a manner as not to degrade system integrity in the event of a rupture of the alternate fuel source or its connecting piping.

CONTAINMENT SYSTEMS

CONTAINMENT VENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.8 The containment vent isolation valves MOV 6900 and MOV 6901 shall be maintained closed by tagging the motor power supply breakers open and maintaining the keyed hand switches locked in the closed position.

APPLICABILITY: MODES 1, 2, 3 and 4

ACTION:

With one or both containment vent isolation valves open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.8 The containment vent isolation valves shall be determined closed at least once per 31 days by verifying that power to the motor operators is removed and the valves indicate shut.

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

PENETRATION NO.	ISOLATION CHANNEL	ISOLATION VALVE IDENTIFICATION NO.	FUNCTION	ISOLATION TIME (SECONDS)
61	NA	76Y-1	Refueling Pool Outlet	NA
	NA	293M-1		NA
	NA	293M-1		NA
	NA	293M-1		NA
62	SIAS A	MOV-6579	Containment Heating Outlet	≤13
64	NA	238-1	Containment Heating Inlet	NA

(1) Manual or remote manual valve which is closed during plant operation.

(2) May be opened below 300°F to establish shutdown cooling flow.

(3) Containment purge ~~and containment vent isolation~~ valves will be shut in MODES 1, 2, 3 and 4 per TS 3/4 6.1.7 ~~and TS 3/4 6.1.8, respectively~~.

* May be open on an intermittent basis under administrative control.

** Containment purge isolation valves isolation times will only apply for MODES 5 and 6 during which time these valves may be opened. Isolation time for containment purge ~~and containment vent~~ isolation valves is NA for MODES 1, 2, 3 and 4 per TS 3/4 6.1.7 ~~and TS 3/4 6.1.8, respectively~~, during which time these valves must remain closed.

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