

ADMINISTRATIVE CONTROLS

- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components identified in Table 5.7-1.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual *as lifetime records.*
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the POSRC and the OSSRC.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR Part 20:

- a. A high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Special or Radiation Work Permit and any individual or group of individuals permitted to enter such areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area.

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PLANT SYSTEMS

FIRE HOSE STATIONS

LIMITING CONDITIONS FOR OPERATION

3.7.11.4 The fire hose stations shown in Table 3.7-5 shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

- a. With one or more of the fire hose stations shown in Table 3.7-5 inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) from an OPERABLE hose station within 1 hour.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.11.4 Each of the fire hose stations shown in Table 3.7-5 shall be demonstrated OPERABLE:

- a. At least once per 31 days by visual inspection of the station to assure all required equipment is at the station. HOSE STATIONS LOCATED IN THE CONTAINMENT SHALL BE VISUALLY INSPECTED ON EACH REACTOR SHUTDOWN, BUT NOT MORE FREQUENTLY THAN EVERY 31 DAYS.
- b. At least once per 18 months by:
 1. Removing the hose for inspection and re-racking, and
 2. Replacement of all degraded gaskets in couplings.
- c. At least once per 3 years by:
 1. Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.
 2. Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station or replacement with a new hose.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2.1 At least two steam turbine driven steam generator auxiliary feedwater pumps, associated flow paths, and actuation system instrumentation shall be OPERABLE.

3.7.1.2.2 At least two auxiliary feedwater actuation system instrumentation channels shall be OPERABLE within the limits specified in Tables 3.7-3 and 3.7-4.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- A. With one auxiliary feedwater pump inoperable, restore at least two auxiliary feedwater pumps to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- B. With one actuation system instrument channel inoperable take the ACTION shown in Table 3.7-5.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At least once per 31 days by:

- 1. Verifying that the steam turbine driven pump develops a Total Dynamic Head of ≥ 2800 ft. on recirculation flow when the secondary steam supply pressure is greater than 800 psig.
- 2. Verifying that each valve (manual, power operated, or automatic) in the flow path is in its correct position. Whenever the pump discharge manual valve is shut (during periodic testing) a dedicated individual will be stationed at the valve. This operator will be in communication with the Control Room. Upon completion of periodic testing the valve will be returned to its proper position and verified in its proper position by an independent operator check.

b. At least once per quarter verify the operability of remotely operated valves.

4.7.1.2.2 After a Cold Shutdown period of 14 days or greater, a flow test shall be performed to verify the flow path from #12 Condensate Storage Tank to both steam generators.

TABLE 3.7-3

AUXILIARY FEEDWATER ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

<u>FUNCTIONAL UNIT</u>	<u>TRIP VALUE</u>	<u>ALLOWABLE VALUE</u>
A. Manual	Not Applicable	Not Applicable
B. Feedwater Flow-Low	15%	15%

TABLE 3.7-4

AUXILIARY FEEDWATER ACTUATION SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>INITIATING SIGNAL & FUNCTION</u>	<u>RESPONSE TIME IN SECONDS</u>
A. Manual	Not applicable
B. Feedwater Flow-Low	180-300

TABLE 3.7-5

AUXILIARY FEEDWATER ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL # OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
A. Manual	2	1	1	1 #	A *
B. Feedwater Flow-Low	2	1	1	1 #	A*

*The provisions of Specification 3.0.4 are not applicable

#At power levels greater than 15%

ACTION STATEMENT

Action A With the number of OPERABLE channels one less than the total number of channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

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SURVEILLANCE REQUIREMENTS

4.7.1.2.3 Each auxiliary feedwater actuation instrumentation channel shall be demonstrated operable by the performance of the channel check, channel calibration, and channel functional test operations during the Modes and at the frequencies shown in Table 4.7.1-1.

TABLE 4.7.1 - 1

AUXILIARY FEEDWATER ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>EMERGENCY FEEDWATER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE IS REQUIRED</u>
A. Manual Initiation	N/A	N/A	M	1
B. Feedwater Flow-Low	N/A	R	M	1

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ADMINISTRATIVE CONTROLS

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for the Radiation Safety and Chemistry Engineer who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Chief Engineer and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Chief Engineer and shall meet or exceed the requirements of Section 27 of the NFPA Code-~~1976~~.

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6.5 REVIEW AND AUDIT

6.5.1 PLANT OPERATIONS AND SAFETY REVIEW COMMITTEE (POSRC)

FUNCTION

6.5.1.1 The POSRC shall function to advise the Chief Engineer on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The POSRC shall be composed of the:

- Chairman: Chief Engineer
- Member: Nuclear Plant Engineer - Operations
- Member: Nuclear Plant Engineer - Maintenance
- Member: Nuclear Engineer
- Member: Radiation Safety and Chemistry Engineer
- Member: Supervisor - Technical Support
- Member: Performance Engineer

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the POSRC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in POSRC activities at any one time.

CALVERT CLIFFS-UNIT 1

3/4 7-31

Amendment No. 30, 38

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO:</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-36-1	SUCTION #11 AUX. FEED PUMP 12'	A	No	No
1-36-1A	SUCTION #11 AUX. FEED PUMP 12'	A	No	No
1-38-1	PRESSURIZER SAMPLE LINES 13'	I	Yes	No
1-38-2	PRESSURIZER SAMPLE LINES 13'	I	Yes	No
1-38-4	PRESSURIZER SAMPLE LINES 38'	I	Yes	No
1-38-5	PRESSURIZER SAMPLE LINES 24'	I	Yes	No
1-38-6	PRESSURIZER SAMPLE LINES 37'	I	Yes	No
1-24-1	DIESEL GENERATOR #12 EXHAUST 92'	A	No	No
1-24-2	DIESEL GENERATOR #11 EXHAUST 92'	A	No	No

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CALVERT CLIFFS-UNIT 1

3/4 7-32

1809 345

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-24-3	EMERGENCY DIESEL #12 EXHAUST 61'	A	No	No
1-24-3A	EMERGENCY DIESEL #12 EXHAUST 61'	A	No	No
1-24-4	EMERGENCY DIESEL #11 EXHAUST 61'	A	No	No
1-24-4A	EMERGENCY DIESEL #11 EXHAUST 61'	A	No	No
1-24-5	DIESEL GENERATOR #21 EXHAUST 92'	A	No	No
1-24-6	DIESEL GENERATOR #21 EXHAUST 62'	A	No	No
1-24-6A	DIESEL GENERATOR #21 EXHAUST 62'	A	No	No
1-41-1	SUCTION #13 CHARGING PUMP -10'	A	No	No
1-41-2	AUX. SPRAY 65'	I	Yes	No
1-41-3	AUX. SPRAY 65'	I	Yes	No

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-69-1	AUX. STEAM SUPPLY TO WASTE EVAPORATORS 33'	A	No	No
1-71-1	DESUPERHEATED STEAM TO WASTE EVAPORATORS 83'	A	No	No
1-71-2	MISC. WASTE EVAP. STEAM SUPPLY 69'	A	No	No
1-71-2A	MISC. WASTE EVAP. STEAM SUPPLY 69'	A	No	No
1-71-3	LETDOWN H/X RELIEF TO RC WASTE RECEIVER TANK #12 40'	A	No	Yes
1-71-4	DRAINS TO RC DRAIN TANK #11 24'	I	Yes	No
1-83-1	MAIN STEAM FROM S.G. #11 27'	A	No	Yes
1-83-2	MAIN STEAM FROM S.G. #11 27'	A	No	Yes
1-83-3	MAIN STEAM FROM S.G. #12 27'	A	No	Yes
1-83-4	MAIN STEAM FROM S.G. #12 27'	A	No	No

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3/4 7-55

1809 3477

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-64-21	PRESSURIZER SURGE LINE 46'	I	Yes	No
1-64-22	PRESSURIZER SURGE LINE 42'	I	Yes	No
1-64-23	PRESSURIZER SURGE LINE 42'	I	Yes	No
1-64-24	PRESSURIZER SURGE LINE 42'	I	Yes	No
1-64-25	PRESSURIZER SURGE LINE 42'	I	Yes	No
1-64-26	LINE FROM MOV 403 TO ERV 402 84'	I	Yes	No
1-64-27	LINE TO PRESS. SAFETY RV 200 81'	I	Yes	No
1-64-28	LINE TO PRESS. SAFETY RV 201 81'	I	Yes	No
1-64-29	LETDOWN TO REGEN H/X 34'	I	Yes	No
1-64-31	LETDOWN FROM LOOP 12A 33'	I	Yes	No
1-64-32	LETDOWN FROM LOOP 12A 26'	I	Yes	No
1-64-33	LETDOWN FROM LOOP 12A 26'	I	Yes	No
1-64-34	LETDOWN FROM LOOP 12A 26'	I	Yes	No
1-64-35	LETDOWN FROM LOOP 12A 26'	I	Yes	No

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TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

CALVERT CLIFFS-UNIT 2

3/4 7-31

1809 348

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<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
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
2-36-1	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
2-36-4	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
2-38-1	Rx. Coolant Sys. Aux. Piping to sample Cooler 13'	I	YES	No
2-38-2	Rx. Coolant Sys. Aux. Piping to sample cooler 54' 1"	I	YES	No

*Change No. 7
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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)
2-61-19	CONT. SPRAY HDR FOR SPRAY RING #22 39'	I	Yes	Yes
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
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

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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)
2-15-5	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
2-36-1	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
2-36-4	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
2-15-8	COMP COOLING TO LIQUID WASTE EVAP 24'	A	No	No
2-15-9	COMP COOLING TO LIQUID WASTE EVAP 14'	A	No	No

CALVERT CLIFFS-UNIT 2

3/4 7-31

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