

ATTACHMENT 2

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

The proposed change to Technical Specifications (Appendix A to Operating License DPR-57) would be incorporated as follows:

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3/4.6.L SNUBBERS

LIMITING CONDITION FOR OPERATION

3.6.L All snubbers listed in Tables 3.6-1a and 3.6-1b shall be OPERABLE.

APPLICABILITY: Conditions 1, 2, and 3.

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.6.L.3 on the supported component or declare the supported system inoperable and follow the appropriate limiting condition of operation statement(s) for that system.

SURVEILLANCE REQUIREMENTS

4.6.L Each snubber shall be demonstrated OPERABLE by performance of the following inservice inspection program.

1. Visual Inspections

All safety-related snubbers listed in Tables 3.6-1a and 3.6-1b shall be visually examined to verify snubber operability. Visual inspections shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers per Inspection Period</u>	<u>Subsequent Visual Inspection Period*</u>
0	18 months \pm 25%
1	12 months \pm 25%
2	6 months \pm 25%
3, 4	124 days \pm 25%
5, 6, 7	21 days \pm 25%
8 or more	31 days \pm 25%

The snubbers may be categorized into two groups: Those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

2. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) for mechanical snubbers where snubber movement can be manually induced, the snubbers shall be inspected as follows: (a) At each refueling,

*The inspection interval shall not be lengthened more than one step at a time.

3/4.6.L SNUBBERS

SURVEILLANCE REQUIREMENTS (Continued)

safety-related systems associated with the snubbers listed in Table 3.6-lb shall be inspected to determine if there has been a severe dynamic event. (b) In the event of a severe dynamic event, snubbers in that system which experienced the event shall be inspected during the refueling outage to assure the snubbers have freedom of movement and are not frozen up. The inspection shall consist of verifying freedom of motion using one of the following: (i) Manually induced snubber movement; (ii) stroking the mechanical snubber through its full range of travel. If one or more mechanical snubbers are found to be frozen up during this inspection, those snubbers shall be replaced (or overhauled) before returning to power. Re-inspection shall subsequently be performed according to the schedule of 4.6.L.1, but the scope of the examination shall be limited to the safety-related systems associated with the snubbers listed in Table 3.6-lb. 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 (2) the affected snubber is functionally tested in the "as found" condition and determined OPERABLE per Specification 4.6.L.4 or 4.6.L.5, as applicable. However, if a hydraulic snubber is found to contain less than the required minimum volume of reserve fluid or if visible signs of leakage are present, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

3. Functional Tests

At least once per 18 months during shutdown*, a representative sample of 10% of the total of each type (hydraulic or mechanical) safety-related snubber 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 4.6.L.4 or 4.6.L.5, an additional sample of at least 1/2 the size of the initial lot of that type of snubber shall be functionally tested.

Functional testing shall continue until no additional inoperable snubbers of a particular type are found within a sample or until all snubbers listed in Table 3.6-la or 3.6-lb, as applicable, have been functionally tested.

*The requirements of this section for functionally testing mechanical snubbers may be waived pending acquisition of a conversion module for existing snubber test equipment or new test equipment by the next refueling outage.

3/4.6.L SNUBBERS

SURVEILLANCE REQUIREMENTS (Continued)

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. The representative sample shall be selected randomly from the total population identified in Tables 3.6-1a and 3.6-1b.

Snubbers identified in Tables 3.6-1a and 3.6-1b as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative sample*. Tables 3.6-1a and 3.6-1b may be used jointly or separately as the basis for the sampling plan.

In addition to the regular sample, snubbers placed in the same location as snubbers which failed the previous functional test shall be retested during the next test period. Test results of these snubbers shall not be included in the sampling plan.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components 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.

4. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

- a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
- b. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

*Permanent or other exemptions from functional testing for individual snubbers in those categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

3/4.6.L SNUBBERS

SURVEILLANCE REQUIREMENTS (Continued)

5. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The snubber operates freely over the stroke in both tension and compression.
2. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. Specified maximum drag force is nominally five (5) pounds or one percent (1%) of rated snubber load, whichever is greater.

6. Unit Outage Inaccessible Snubber Inspection

In the event that all inaccessible snubbers are inspected, functionally tested, and repaired as necessary during a unit outage, and that it is thus demonstrated that all inaccessible snubbers are operable, the schedule in Specification 4.6.L.1 may be re-entered on a 6-month inspection interval for the inaccessible snubbers.

7. 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 6.10.2.1.

Concurrent with the inservice visual inspection performed at the end of the 5th refueling cycle and at least once per 18 months thereafter, the installation and maintenance records for each snubber listed in Tables 3.6-1a and 3.6-1b shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded by more than 10% prior to the next scheduled snubber service life review. If the indicated service life will be exceeded by more than 10% prior to the next scheduled snubber service life review, the snubber service life shall be reevaluated 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. The results of the reevaluation may be used to justify a change to the service life of the snubber. This reevaluation replacement or reconditioning shall be indicated in the records.

TABLE 3.6-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>Nuclear Boiler System</u>				
SS-1 (1)	Az. 720, El. 150'	I	No	No
SS-2 (1)	Az. 720, El. 150'	I	No	No
SS-3 (1)	Az. 00, El. 140	I	No	No
SS-4 (1)	Az. 50, El. 128'	I	No	No
SS-5 (1)	Az. 00, El. 140'	I	No	No
SS-6 (1)	Az. 1080, El. 150'	I	No	No
SS-7 (1)	Az. 900, El. 150'	I	No	No
SS-8 (1)	Az. 1600, El. 151	I	No	No
SS-9 (1)	Az. 950, El. 144'	I	No	No
SS-10 (1)	Az. 900, El. 142'	I	No	Yes
SS-11 (1)	Az. 1000, El. 138'	I	No	Yes
SS-12 (1)	Az. 850, El. 144'	I	No	Yes
SS-13 (1)	Az. 820, El. 143'	I	No	No
SS-14 (1)	Az. 3150, El. 150'	I	No	No
SS-15 (1)	Az. 900, El. 145'	I	No	No
SS-16 (1)	Az. 900, El. 144'	I	No	No
SS-17 (1)	Az. 1700, El. 145'	I	No	Yes
SS-18 (1)	Az. 1600, El. 145'	I	No	Yes
SS-19 (1)	Az. 1600, El. 134'	I	No	No
SS-20 (1)	Az. 1600, El. 145'	I	No	Yes

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<u>Nuclear Boiler System (Continued)</u>				
SS-21 (1)	Az. 135 ⁰ , El. 158'	I	No	No
SS-22 (1)	Az. 160 ⁰ , El. 152'	I	No	No
SS-23 (1)	Az. 278 ⁰ , El. 150'	I	No	No
SS-24 (1)	Az. 270 ⁰ , El. 150'	I	No	No
SS-26 (1)	Az. 275 ⁰ , El. 145'	I	No	No
SS-27 (1)	Az. 270 ⁰ , El. 138'	I	No	No
SS-28 (1)	Az. 270 ⁰ , El. 142'	I	No	Yes
SS-29 (1)	Az. 270 ⁰ , El. 140'	I	No	No
SS-31 (1)	Az. 270 ⁰ , El. 139'	I	No	No
SS-32 (1)	Az. 275 ⁰ , El. 125'	I	No	No
SS-33A (1)	Az. 285 ⁰ , El. 123'	I	No	No
SS-33B (1)	Az. 285 ⁰ , El. 123'	I	No	No
SS-34 (1)	Az. 280 ⁰ , El. 120'	I	No	No
SS-35 (1)	Az. 292 ⁰ , El. 120'	I	No	No
SS-36 (1)	Az. 307 ⁰ , El. 148'	I	No	No
SS-37 (1)	Az. 315 ⁰ , El. 150'	I	No	No
SS-38 (1)	Az. 90, El. 128'	I	No	No
SS-39 (1)	Az. 90, El. 128'	I	No	No
SS-40 (1)	Az. 00, El. 123'	I	No	No
SS-41 (1)	Az. 345 ⁰ , El. 155'	I	No	No

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<u>Nuclear Boiler System (Continued)</u>				
SS-42 (1)	Az. 3470, El. 151'	I	No	No
SS-43 (1)	Az. 3400, El. 155'	I	No	No
SS-44 (1)	Az. 3430, El. 155'	I	No	No
SS-45 (1)	Az. 670, El. 118'	I	No	No
SS-46 (1)	Az. 670, El. 120'	I	No	No
MVVH-23 (1)	Az. 2700, El. 144'	I	No	Yes
MVVH-24 (1)	Az. 2700, El. 144'	I	No	Yes
MVVH-25 (1)	Az. 2700, El. 144'	I	No	Yes
MVVH-27 (1)	Az. 2250, El. 124'	I	No	No
MVVH-28 (1)	Az. 2500, El. 128'	I	No	No
MVVH-29 (1)	Az. 2500, El. 128'	I	No	No
MVVH-31 (1)	Az. 1400, El. 149'	I	No	No
MVVH-32 (1)	Az. 1400, El. 148'	I	No	No
MVVH-33 (1)	Az. 1400, El. 145'	I	No	No
MVVH-35 (1)	Az. 900, El. 126'	I	No	No
MVVH-36 (1)	Az. 900, El. 126'	I	No	No
MVVH-37 (1)	Az. 900, El. 126'	I	No	No
FDH-11 (2)	Az. 160, El. 147'	I	No	No
FDH-12 (2)	Az. 00, El. 147'	I	No	No
FDH-13 (1)	Az. 400, El. 148'	I	No	No

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<u>Nuclear Boiler System (Continued)</u>				
FDH-14 (1)	Az. 75 ⁰ , El. 148'	I	No	No
FDH-15 (1)	Az. 53 ⁰ , El. 148'	I	No	No
FDH-16 (1)	Az. 79 ⁰ , El. 146'	I	No	No
FDH-17 (1)	Az. 280 ⁰ , El. 148'	I	No	No
FDH-18 (1)	Az. 281 ⁰ , El. 146'	I	No	No
FDH-19 (1)	Az. 98 ⁰ , El. 150'	I	No	No
FDH-21 (2)	Az. 150 ⁰ , El. 165' & 210 ⁰ ,	I	No	No
FDH-22 (2)	Az. 120 ⁰ , El. 165' & 240 ⁰ ,	I	No	No
FDH-23 (1)	Az. 60 ⁰ , El. 164'	I	No	No
FDH-24 (1)	Az. 30 ⁰ , El. 167'	I	No	No
FDH-25 (1)	Az. 330 ⁰ , El. 164'	I	No	No
FDH-26 (1)	Az. 310 ⁰ , El. 167'	I	No	No
DFDH-28 (1)	4'S47-8'ERA, El. 132'	I	No	No
DFDH-30 (1)	4'NR7-8'ERA, El. 132'	I	No	No
DFDH-32 (1)	Az. 14 ⁰ , El. 132'	I	No	No
DFDH-36 (1)	Az. 0 ⁰ , El. 132'	I	No	No

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<u>RHR System</u>				
S-1 (1)	Az. 270 ⁰ , El. 141'	I	No	No
S-2 (1)	Az. 270 ⁰ , El. 141'	I	No	No
S-4 (1)	Az. 210 ⁰ , El. 141'	I	No	No
S-5 (1)	Az. 240 ⁰ , El. 141'	I	No	No
S-15 (1)	Az. 185 ⁰ , El. 139'	I	No	Yes
SM-1 (1)	Az. 180 ⁰ , El. 134'	I	No	No
SM-2 (1)	Az. 180 ⁰ , El. 140'	I	No	Yes
SM-3 (1)	Az. 225 ⁰ , El. 146'	I	No	Yes
SM-4 (1)	Az. 225 ⁰ , El. 146'	I	No	Yes
SM-8 (1)	Az. 90 ⁰ , El. 146'	I	No	No
<u>Recirc System</u>				
SS-A1 (1)	Az. 315 ⁰ , El. 123'	I	No	No
SS-A2 (1)	Az. 315 ⁰ , El. 123'	I	No	No
SS-A3 (1)	Az. 315 ⁰ , El. 123'	I	No	No
SS-A4 (1)	Az. 310 ⁰ , El. 131'	I	No	No
SS-A5 (1)	Az. 320 ⁰ , El. 131'	I	No	No
SS-A6 (1)	Az. 315 ⁰ , El. 134'	I	No	No
SS-A7 (1)	Az. 15 ⁰ , El. 134'	I	No	No

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<u>Recirc System (Continued)</u>				
SS-A8 (1)	Az. 100, El. 134'	I	No	No
SS-A12 (1)	Az. 2700, El. 145'	I	No	No
SS-A13 (1)	Az. 2700, El. 145'	I	No	No
SS-A14 (1)	Az. 2700, El. 122'	I	No	No
SS-B1 (1)	Az. 1400, El. 120'	I	No	No
SS-B2 (1)	Az. 1350, El. 123'	I	No	No
SS-B3 (1)	Az. 1350, El. 123'	I	No	No
SS-B4 (1)	Az. 1450, El. 131'	I	No	No
SS-B5 (1)	Az. 1350, El. 131'	I	No	No
SS-B6 (1)	Az. 1350, El. 137'	I	No	Yes
SS-B7 (1)	Az. 1850, El. 140'	I	No	No
SS-B8 (1)	Az. 1800, El. 140'	I	No	No
SS-B12 (1)	Az. 900, El. 145'	I	No	No
SS-B13 (1)	Az. 900, El. 145'	I	No	No
SS-B14 (1)	Az. 900, El. 116'	I	No	No
<u>Core Spray System</u>				
CSH-75 (1)	10"NR 3- 7"WRL, El. 125'	A	No	No
CSH-71 (1)	7"NR13-10"WRL, El. 121'	A	No	No
CSH-79 (1)	2"NR 9- 7"WRH, El. 172'	A	No	No

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<u>HPCI System</u>				
HPCIH- 9 (1)	13'SR1- 6'ERC, El. 88'	A	No	No
HPCIH-13 (1)	7'SR1- 2'WRL, El. 94'	A	No	No
HPSEH- 2 (1)	12'NR2-10'WRL, El. 92'	A	No	No
HPSEH- 8 (2)	6'NR2- 4'NRC, El. 112'	A	No	No
HPSEH-12 (1)	5'NR3- 3'ERF, El. 123'-8"	A	No	No
HPSEH-13 (2)	4'NR3- 3'ERF, El. 123'-6"	A	No	No
HPSEH-17 (1)	5'NR3-14'ERF, El. 123'-6"	A	No	No
HPSEH-55 (1)	8'SR1-25'WRL, El. 98'	A	No	No
HPSEH-57 (1)	1'SR1-18'WRL, El. 99'-6"	A	No	No
HPSEH-58 (1)	4'SR1-18'WRL, El. 99'	A	No	No
HPSEH-60 (2)	4'NR2- 4'NRC, El. 120'	A	No	No
HPSEH-61 (1)	3'NR5-11'ERH, El. 123'	A	No	No
HPSEH-62 (1)	3'NR5-11'ERH, El. 123'	A	No	No
HPSEH-63 (1)	8'NR7-13'ERH, El. 123'	A	No	No
HPSEH-66 (1)	13'SR9- 2'ERH, El. 122'	A	No	No
HPSEH-67 (1)	8'SR11-6'ERH, El. 123'	A	No	No
HPSEH-72 (1)	11'SR 2-6'ERH, El. 124'	A	No	No
HPSEH-73 (1)	11'SR 2-5'ERH, El. 124'	A	No	No
HPSEH-74 (1)	7'SR3-11'ERH, El. 122'	A	No	No
HPSEH-76 (1)	1'NR3- 7'WRF, El. 123'	A	No	No

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TABLE 3.6-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>HPCI System (Continued)</u>				
HPSEH-77 (1)	8'NR3-13'WRF, El. 123'	A	No	No
HPSEH-80 (1)	11'NR13-6'ERH, El. 126'	A	No	No
HPSEH-81 (1)	12'NR13-5'ERL, El. 126'	A	No	No
HPSEH-82 (1)	3'SR11-5'WRH, El. 123'	A	No	No
HPSEH-83 (1)	6'NR11-1'ERF, El. 123'	A	No	No
HPSEH-84 (1)	8'NR11-13'WRF, El. 123'	A	No	No
HPSEH-85 (1)	7'NR11-11'WRF, El. 122'	A	No	No
HPSEH-87 (1)	1'SR11- 7'WRF, El. 125'	A	No	No
HPSEH-88 (1)	12'NR2-12' WRL, El. 120'	A	No	No
HPSEH-89 (2)	11'SR2- 3' ERG, El. 123'	A	No	No
HPSEH-90 (1)	5'NR3-13' ERF, El. 125'	A	No	No
HPSEH-91 (2)	5'SR3- 8' ERF, El. 123'-6"	A	No	No
HPSEH-92 (1)	8'NR3- 3' ERH, El. 123'	A	No	No
HPSEH-93 (1)	8'NR3- 3' ERH, El. 123'	A	No	No
<u>RCIC System</u>				
RCSEH-2 (1)	2'SR11-15'ERA, El. 101'	A	No	No
RCSEH-20 (1)	1'NR11-14'ERA, El. 98'	A	No	No
RCSEH-21 (1)	7'SR 9- 5'ERA, El. 120'	A	No	Yes
RCSEH-23 (2)	14'SR 7- 9'ERA, El. 122'	A	No	Yes

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TABLE 3.6-1a
SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>RHR System</u>				
RHRH-184 (1)	3'SR3-17'ERH, El. 90'	A	No	No
RHRH-185 (1)	3'SR3-17'ERH, El. 91'	A	No	No
RHRH-186 (2)	0'SR3-12'ERH, El. 88'	A	No	No
RHRH-187 (2)	4'NR3- 8'ERH, El. 89'	A	No	No
RHRH-188 (1)	5'SR5- 5'WRL, El. 90'	A	No	No
RHRH-189 (1)	2'NR5- 8'WRL, El. 90'	A	No	No
RHRH-192 (1)	9'NR3-18'ERH, El. 123'	A	No	No
RHRH-193 (1)	9'NR3-17'ERH, El. 123'	A	No	No
RHRH-195 (1)	6'SR3-18'WRL, El. 125'	A	No	No
RHRH-196 (1)	6'SR3-18'WRL, El. 120'	A	No	No
RHRH-199 (1)	10'SR3- 3'WRL, El. 123'	A	No	No
RHRH-202 (1)	6'SR7- 7'ERH, El. 110'	A	No	No
RHRH-207 (2)	10'SR7-15'ERH, El. 151'	A	No	No
RHRH-209 (2)	6'NR3-16'WRL, El. 105'	A	No	No
RHRH-210 (1)	9'NR3-16'WRL, El. 108'	A	No	No
RHRH-211 (2)	7'NR3-10'WRL, El. 100'	A	No	No
RHRH-212 (1)	6'NR3-12'WRL, El. 104'	A	No	No
RHRH-213 (1)	3'SR2-12'WRL, El. 124'	A	No	No
RHRH-214 (1)	3'SR2- 2'WRL, El. 119'	A	No	No
RHRH-215 (2)	3'SR2-12'WRL, El. 118'	A	No	No

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TABLE 3.6-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>RHR System (Continued)</u>				
RHRH-216 (1)	11'NR3-16'WRL, El. 122'	A	No	No
RHRH-217 (1)	11'NR3-19'WRL, El. 121'	A	No	No
RHRH-218 (1)	9'SR2-13'ERH, El. 116'	A	No	No
RHRH-220 (1)	4'SR7-12'WRL, El. 126'	A	No	No
RHRH-221 (1)	2'SR7-10'WRL, El. 122'	A	No	No
RHRH-222 (2)	2'SR7-10'WRL, El. 120' & 122'	A	No	No
RHRH-223 (1)	1/2'NR11-4'ERH, El. 125'	A	No	No
RHRH-224 (1)	3'SR11-7'ERH, El. 123'	A	No	No
RHRH-225 (1)	9'NR13-13'ERH, El. 117'	A	No	No
RHRH-226 (1)	12'SR11-19'WRL, El. 121'	A	No	No
RHRH-227 (1)	12'SR11-17'WRL, El. 122'	A	No	No
RHRH-228 (1)	3'NR13-12'WRL, El. 124'	A	No	No
RHRH-229 (1)	3'NR13-12'WRL, El. 120'	A	No	No
RHRH-230 (2)	3'NR13-12'WRL, El. 116' & 119'	A	No	No
RHRH-231 (2)	9'SR11-17'WRL, El. 104'	A	No	No
RHRH-232 (1)	9'SR11-17'WRL, El. 107'	A	No	No
RHRH-233 (1)	7'SR11-10'WRL, El. 97'	A	No	No
RHRH-234 (1)	6'SR11-12'WRL, El. 104'	A	No	No
RHRH-237 (2)	2'NR 9- 3'ERH, El. 155'	A	No	No
RHRH-238 (2)	2'NR 9- 4'WRH, El. 159'	A	No	No

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TABLE 3.6-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>RHR System (Continued)</u>				
RHRH-239 (1)	2'NR 9- 4'WRH, El. 160'	A	No	No
RHRH-240 (2)	6'NR 5-25'WRL, El. 147'	A	No	No
RHRH-242 (1)	3'SR 4- 4'WRH, El. 150'	A	No	No
RHRH-244 (2)	10'SR11- 4'ERF, El. 121'	A	No	No
RHRH-245 (1)	10'SR11- 3'ERF, El. 121'	A	No	No
RHRH-246 (1)	10'SR11- 3'ERF, El. 122'	A	No	No
RHRH-249 (1)	11'SR11-10'ERF, El. 118'	A	No	No
RHRH-250 (2)	10'NR 3- 4'ERF, El. 121'	A	No	No
RHRH-251 (1)	10'NR 3- 3'ERF, El. 119'	A	No	No
RHRH-252 (1)	10'NR 3- 3'ERF, El. 121'	A	No	No
RHRH-254 (1)	11'NR 3-10'ERF, El. 118'	A	No	No
RHRH-279 (2)	3'SR 5- 3'WRL, El. 116'	A	No	No
RHRH-282 (1)	1/2'SR4- 7'ERG, El. 121'	A	No	No
RHRH-286 (2)	3'SR 2-17'WRL, El. 116'	A	No	No
RHRH-288 (2)	3'NR 9- 3'WRL, El. 116'	A	No	No
RHRH-292 (1)	4'SR 2- 6'ERH, El. 124'	A	No	No
RHRH-299 (1)	4'SR13- 6'ERH, El. 122'	A	No	No
RHRH-305 (1)	5'NR 3- 4'ERH, El. 123'	A	No	No
RHRH-306 (2)	3'NR 3- 7'ERH, El. 121'	A	No	No
RHRH-307 (1)	10'SR 5-17'ERH, El. 132'	A	No	No
RHRH-309 (1)	9'SR11-18'ERH, El. 115'	A	No	No

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TABLE 3.6-la

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>RHR System (Continued)</u>				
RHRH-310 (1)	9'SR11-18'ERH, El. 124'	A	No	No
RHRH-312 (1)	6'NR11-18'WRL, El. 124'	A	No	No
RHRH-313 (1)	6'NR11-18'WRL, El. 125'	A	No	No
RHRH-316 (1)	10'NR11- 4'WRL, El. 123'	A	No	No
RHRH-319 (2)	9'NR 9-17'ERH, El. 136'	A	No	No
RHRH-320 (1)	4'NR11-17'ERH, El. 90'	A	No	No
RHRH-321 (1)	3'NR11-15'ERH, El. 91'	A	No	No
RHRH-322 (2)	3'SR11-12'ERH, El. 89'	A	No	No
RHRH-323 (2)	1'SR11- 9'ERH, El. 89'	A	No	No
RHRH-324 (1)	3'NR 9- 5'WRL, El. 91'	A	No	No
RHRH-325 (1)	2'SR 9- 9'WRL, El. 90'	A	No	No
RHRH-332 (1)	2'SR 6- 2'WRH, El. 190'	A	No	No
RHRH-344 (1)	1/2'NR10-1'WRH, El. 122'	A	No	No
RHRH-348 (2)	3'NR13-17'WRL, El. 117'	A	No	No
RHRH-399 (1)	6'NR 5- 6'ERH, El. 148'	A	No	No
RHRH-400 (1)	6'NR 5- 1'ERH, El. 148'	A	No	No

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TABLE 3.6-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
<u>Nuclear Boiler System</u>				
B21-DFDH-16 (1)	6'SR7-27'WRF, El.131'-5"	I	No	Yes
B21-DFDH-33 (1)	2'NR7- 2'ERE, El.132'-2"	I	No	Yes
B21-DFDH-43 (1)	2'-10"SR7-3'ERA, El.134'-5"	I	No	Yes
B21-DFDH-43 (1)	4'-2"SR7-3'ERA, El.134'-5"	I	No	Yes
B21-FDH-20 (1)	Az.262 ⁰ , El.149'-9"	I	No	Yes
B21-X28-1F19-H001 (1)	Az.180 ⁰ , El.192'-0"	I	No	Yes
B21-X28-1F19-H001A (1)	Az.180 ⁰ , El.193'-0"	I	No	Yes
B21-X29-1F17-H002 (1)	Az. 10 ⁰ , El.173'-0"	I	No	Yes
B21-X29-1F17-H003A (2)	Az. 0 ⁰ , El.188'-0"	I	No	Yes
B21-X29-1F17-H003B (2)	Az. 0 ⁰ , El.182'-0"	I	No	Yes
B21-X29-1F17-H003C (2)	Az. 0 ⁰ , El.177'-0"	I	No	Yes
B21-X28-1F19-H004A (2)	Az.180 ⁰ , El.177'-0"	I	No	Yes
B21-X28-1F19-H004B (2)	Az.180 ⁰ , El.182'-0"	I	No	Yes
B21-X28-1F19-H004C (2)	Az.180 ⁰ , El.188'-0"	I	No	Yes
B21-X29-1F24-H002 (1)	Az. 0 ⁰ , El.192'-0"	I	No	Yes
B21-X29-1F24-H003 (1)	Az. 0 ⁰ , El.192'-0"	I	No	Yes
B21-X29-1F18-H004 (1)	Az. 4 ⁰ , El.173'-0"	I	No	Yes
B21-F5-H005 (1)	Az. 0 ⁰ , El.197'-0"	I	No	Yes
B21-F22-H001 (1)	Az. 0 ⁰ , El.138'-0"	I	No	Yes
B21-F23-H001 (1)	Az. 0 ⁰ , El.137'-0"	I	No	Yes

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TABLE 3.6-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>Nuclear Boiler System Continued)</u>				
B21-F24-H001 (1)	Az. 0 ⁰ , El. 137'-0"	I	No	Yes
B21-F25-H001 (1)	Az. 0 ⁰ , El. 137'-0"	I	No	Yes
B21-F38-H005 (1)	3'-6" NR7-8' ERA, El. 133'-0"	I	No	Yes
B21-F38-H005 (1)	8' ERA-6'-5" SR7, El. 133'-0"	I	No	Yes
B21-F16-H008 (1)	Az. 40 ⁰ , El. 190'-0"	I	No	Yes
B21-F5-H020 (1)	Az. 45 ⁰ , El. 201'-0"	I	No	Yes
B21-F5-H021 (1)	Az. 45 ⁰ , El. 201'-0"	I	No	Yes
<u>Recirc System</u>				
B31-X31-1F5-H001 (2)	Az. 90 ⁰ , El. 124'-0"	I	No	Yes
B31-X33-1F5-H001 (1)	Az. 90 ⁰ , El. 132'-0"	I	No	Yes
B31-X32-1F6-H001 (1)	Az. 290 ⁰ , El. 123'-0"	I	No	Yes
B31-X32-1F6-H002 (1)	Az. 295 ⁰ , El. 121'-0"	I	No	Yes
B31-X32-1F7-H001 (1)	Az. 340 ⁰ , El. 116'-0"	I	No	Yes
B31-X34-1F16-H001 (1)	Az. 135 ⁰ , El. 124'-0"	I	No	Yes
B31-X28-1F16-H811 (1)	Az. 217 ⁰ , El. 172'-0"	I	No	Yes
B31-X28-1F16-H812 (1)	Az. 217 ⁰ , El. 172'-0"	I	No	Yes
B31-F3-H800 (1)	Az. 315 ⁰ , El. 115'-0"	I	No	Yes
B31-F14-H800 (1)	Az. 180 ⁰ , El. 115'-0"	I	No	Yes

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TABLE 3.6-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>RHR System</u>				
E11-F20-H001 (1)	22'SR7-23'ERH, El.139'-0"	I	No	Yes
E11-F20B-H001 (1)	Az.270 ⁰ , El.138'-0"	I	No	Yes
E11-RHR-405 (1)	Az.155 ⁰ , El.211'-2"	I	No	Yes
<u>Core Spray System</u>				
E21-F1-H001 (2)	Az. 80 ⁰ , El.175'-0"	I	No	Yes
E21-F1-H002 (2)	Az.270 ⁰ , El.174'-0"	I	No	Yes
<u>RCIC System</u>				
E51-X40B-1F4-H001 (1)	Az.330 ⁰ , El.156'-0"	I	No	Yes
<u>RWCU System</u>				
G31-SM-5 (1)	Az.160 ⁰ , El.168'-11"	I	No	Yes
G31-SM-6 (1)	Az.160 ⁰ , El.168'-11"	I	No	Yes

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TABLE 3.6-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>Equipment & Floor Drain System</u>				
T45-F17-H001 (1)	Az. 90 ⁰ , El. 117'-0"	I	No	Yes
<u>RHR System</u>				
E11-F8-H001 (1)	22'SR7-23'ERH, El. 123'-0"	A	No	No
E11-F93-H001 (1)	17'NR7-24'WRL, El. 124'-0"	A	No	No
E11-F93-H002 (1)	17'NR7-24'WRL, El. 122'-0"	A	No	No
<u>Primary Containment Purge & Inerting System</u>				
T48-F30-H001 (1)	Az. 45 ⁰ , El. 120'-0"	A	No	No
T48-F30-H002 (1)	Az. 45 ⁰ , El. 120'-0"	A	No	No

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3/4.6.L SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 18 month intervals. Observed failures of sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

BASES

3/4.6.L SNUBBERS (Continued)

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

ADMINISTRATIVE CONTROL

RECORD RETENTION (Continued)

- c. Records of radiation exposure for all individuals entering radiation control areas.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those unit components identified in Table 5.7.1-1.
- f. Records of reactor tests and experiments.
- g. Records of training and qualification for current members for the unit staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- 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 PRB and SRB.
- l. Records of the service lives of all hydraulic and mechanical snubbers listed on Tables 3.6-1a and 3.6-1b including the date at which the service life commences and associated installation and maintenance records.

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 CFR20, each 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 requiring issuance of a Radiation Work Permit*. Any individual or group of individuals permitted

*Health Physics personnel, or personnel escorted by Health Physics personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

ATTACHMENT 3

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

The proposed change to Technical Specifications (Appendix A to Operating License NPF-5) would be incorporated as follows:

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PLANT SYSTEMS

3/4.7.4 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.4 All snubbers listed in Tables 3.7.4-1a and 3.7.4-1b shall be OPERABLE.

APPLICABILITY: Conditions 1, 2, and 3.

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.4.c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.4 Each snubber shall be demonstrated OPERABLE by performance of the following inservice inspection program and the requirements of Specification 4.0.5.

a. Visual Inspections

All safety-related snubbers listed in Tables 3.7.4-1a and 3.7.4-1b shall be visually examined to verify snubber operability. Visual inspections shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers per Inspection Period</u>	<u>Subsequent Visual Inspection Period*#</u>
0	18 months + 25%
1	12 months + 25%
2	6 months + 25%
3, 4	124 days + 25%
5, 6, 7	62 days + 25%
8 or more	31 days + 25%

The snubbers may be categorized into two groups: Those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

*The inspection interval shall not be lengthened more than one step at a time.

#The provisions of Specification 4.0.2 are not applicable.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) for mechanical snubbers where snubber movement can be manually induced, the snubbers shall be inspected as follows: (a) At each refueling, safety-related systems associated with the snubbers listed in Table 3.7.4-1b shall be inspected to determine if there has been a severe dynamic event. (b) In the event of a severe dynamic event, snubbers in that system which experienced the event shall be inspected during the refueling outage to assure the snubbers have freedom of movement and are not frozen up. The inspection shall consist of verifying freedom of motion using one of the following: (i) Manually induced snubber movement; (ii) stroking the mechanical snubber through its full range of travel. If one or more mechanical snubbers are found to be frozen up during this inspection, those snubbers shall be replaced (or overhauled) before returning to power. Re-inspection shall subsequently be performed according to the schedule of 4.7.4.a, but the scope of the examination shall be limited to the safety-related systems associated with the snubbers listed in Table 3.7.4-1b. 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 (2) the affected snubber is functionally tested in the "as found" condition and determined OPERABLE per Specification 4.7.4.d or 4.7.4.e, as applicable. However, if a hydraulic snubber is found to contain less than the required minimum volume of reserve fluid or if visible signs of leakage are present, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

c. Functional Tests

At least once per 18 months during shutdown*, a representative sample of 10% of the total of each type (hydraulic or mechanical) safety-related snubber in use in the plant shall be

*The requirements of this section for functionally testing mechanical snubbers may be waived pending acquisition of a conversion module for existing snubber test equipment or new test equipment by the next refueling outage.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.4.d or 4.7.4.e, an additional sample of at least 1/2 the size of the initial lot of that type of snubber shall be functionally tested.

Functional testing shall continue until no additional inoperable snubbers of a particular type are found within a sample or until all snubbers listed in Table 3.7.4-la or 3.7.4-lb, as applicable, have been functionally tested

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. The representative sample shall be selected randomly from the total population identified in Tables 3.7.4-la and 3.7.4-lb.

Snubbers identified in Tables 3.7.4-la and 3.7.4-lb as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative sample*. Tables 3.7.4-la and 3.7.4-lb may be used jointly or separately as the basis for the sampling plan.

In addition to the regular sample, snubbers placed in the same location as snubbers which failed the previous functional test shall be retested during the next test period. Test results of these snubbers shall not be included in the sampling plan.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components 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.

*Permanent or other exemptions from functional testing for individual snubbers in those categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

e. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The snubber operates freely over the stroke in both tension and compression.
2. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. Specified maximum drag force is nominally five (5) pounds or one percent (1%) of rated snubber load, whichever is greater.

f. Unit Outage Inaccessible Snubber Inspection

In the event that all inaccessible snubbers are inspected, functionally tested, and repaired as necessary during a unit outage, and that it is thus demonstrated that all inaccessible snubbers are operable, the schedule in Specification 4.7.4.a may be re-entered on a 6-month inspection interval for the inaccessible snubbers.

g. 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 6.10.2.1.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Concurrent with the inservice visual inspection performed at the end of the 2nd refueling cycle and at least once per 18 months thereafter, the installation and maintenance records for each snubber listed in Tables 3.7.4-1a and 3.7.4-1b shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded by more than 10% prior to the next scheduled snubber service life review. If the indicated service life will be exceeded by more than 10% prior to the next scheduled snubber service life review, the snubber service life shall be reevaluated 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. The results of the reevaluation may be used to justify a change to the service life of the snubber. This reevaluation, replacement or reconditioning shall be indicated in the records.

TABLE 3.7.4-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON. LOCATION AND ELEVATION Reactor Building	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
<u>2E11-RHR SYSTEM</u>				
R86 (1)	8' NR19 - 1' ERJ, E1. 212'	A	No	No
R88 (1)	10' NR17 - 3' WRJ, E1. 119'	A	No	No
R90 (1)	R15 - 3' ERH, E1. 119'	A	No	No
R93 (2)	8' SR14 - 11' ERF, E1. 118'	A	No	No
R94 (1)	8' SR14 - 10' ERF, E1. 118'	A	No	No
R98 (2)	10' SR19 - 1' ERJ, E1. 121'	A	No	No
R100 (1)	10' SR21 - 3' WRJ, E1. 119'	A	No	No
R101 (1)	12' SR21 - 5' WRJ, E1. 119'	A	No	No
R102 (1)	R23 - 3' ERH, E1. 119'	A	No	No
R128 (1)	6' NR23 - 16' ERF, E1. 123'	A	No	No
R129 (2)	18' SR21 - 16' ERF, E1. 123'	A	No	No
R146 (2)	5' SR21 - 8' WRL, E1. 120'	A	No	Yes
R221 (1)	18' NR19 - 12' WRL, E1. 90'	A	No	No
R222 (1)	18' SR19 - 12' WRL, E1. 90'	A	No	No
R223 (1)	18' SR14 - 23' WRL, E1. 90'	A	No	No
R227 (1)	18' NR24 - 23' WRL, E1. 90'	A	No	No
R231 (2)	3' SR19 - 9' WRL, E1. 102'	A	No	No
R238 (2)	12' SR15 - 3' WRL, E1. 107'	A	No	Yes
R241 (2)	3' NR23 - 9' WRL, E1. 102'	A	No	No
R245 (2)	12' NR23 - 3' WRL, E1. 107'	A	No	Yes

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7.4-1a provided that a revision to Table 3.7.4-1a is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that the revision to Table 3.7.4-1a is included with the next License Amendment request.

TABLE 3.7.4-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION Reactor Building	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
<u>2E11-RHR SYSTEM (Continued)</u>				
R250 (1)	11' SR14 - 15' WRL, E1. 119'	A	No	No
R251 (2)	11' SR14 - 15' WRL, E1. 120'	A	No	No
R252 (1)	15' SR14 - 15' WRL, E1. 112'	A	No	No
R253 (1)	15' SR14 - 15' WRL, E1. 120'	A	No	No
R254 (1)	17' SR14 - 17' WRL, E1. 112'	A	No	No
R256 (1)	17' SR14 - 17' WRL, E1. 112'	A	No	Yes
R258 (1)	22' SR14 - 13' WRL, E1. 99'	A	No	No
R264 (1)	21' SR14 - 9' WRL, E1. 104'	A	No	Yes
R267 (2)	15' SR14 - 3' WRL, E1. 102'	A	No	No
R268 (1)	11' NR24 - 15' WRL, E1. 119'	A	No	No
R269 (2)	11' NR24 - 15' WRL, E1. 120'	A	No	No
R270 (1)	15' NR24 - 15' WRL, E1. 112'	A	No	No
R271 (1)	15' NR24 - 15' WRL, E1. 120'	A	No	No
R272 (1)	17' NR24 - 17' WRL, E1. 112'	A	No	No
R274 (1)	17' NR24 - 17' WRL, E1. 112'	A	No	No
R276 (1)	22' NR24 - 13' WRL, E1. 99'	A	No	No
R282 (1)	21' NR24 - 9' WRL, E1. 104'	A	No	Yes
R285 (2)	15' NR24 - 3' WRL, E1. 102'	A	No	No
R315 (2)	10' NR19 - 6' ERJ, E1. 123'	A	No	No
R374 (2)	23' SR14 - 15' WRL, E1. 106'	A	No	Yes

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7.4-1a provided that a revision to Table 3.7.4-1a is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that the revision to Table 3.7.4-1a is included with the next License Amendment request.

TABLE 3.7.4-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION Reactor Building	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
<u>2E11-RHR SYSTEM (Continued)</u>				
R375 (2)	23' SR14 - 12' WRL, El. 108'	A	No	No
R376 (1)	23' SR14 - 12' WRL, El. 109'	A	No	No
R377 (2)	23' NR24 - 15' WRL, El. 106'	A	No	Yes
R378 (2)	23' NR24 - 12' WRL, El. 108'	A	No	No
R379 (1)	23' NR24 - 12' WRL, El. 109'	A	No	No
<u>2E11-RHR SERVICE WATER SYSTEM</u>				
R 15 (2)	7' SR14 - 11' ERH, El. 115'	A	No	No
R 23 (2)	7' NR24 - 11' ERH, El. 115'	A	No	No
<u>2E21-CORE SPRAY SYSTEM</u>				
R 35 (1)	8' SR14 - 6' WRL, El. 95'	A	No	No
R 40 (1)	7' SR14 - 31' WRL, El. 95'	A	No	No
R 53 (2)	10' SR14 - 6' WRL, El. 106'	A	No	No
R 72 (2)	10' NR24 - 6' WRL, El. 102'	A	No	No
R 80 (1)	8' NR24 - 6' WRL, El. 95'	A	No	No
R 87 (1)	7' NR24 - 6' WRL, El. 90'	A	No	No
R107 (2)	39' NR24 - 15' WRL, El. 123'	A	No	No

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7.4-1a provided that a revision to Table 3.7.4-1a is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that the revision to Table 3.7.4-1a is included with the next License Amendment request.

TABLE 3.7.4-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
<u>Reactor Building</u>				
<u>2T46-SGTS SYSTEM</u>				
R 65 (2)	6' NR24 - 9' WRB, E1. 198'	A	No	Yes
R 66 (1)	2' NR24 - 9' WRB, E1. 186'	A	No	No
R 67 (1)	2' NR24 - 9' WRB, E1. 180'	A	No	Yes
R 68 (2)	6' NR24 - 9' ERA, E1. 198'	A	No	Yes
R 69 (1)	2' NR24 - 9' ERB, E1. 186'	A	No	No
R 70 (2)	2' NR24 - 9' ERA, E1. 179'	A	No	Yes
<u>2B31-REACTOR RECIRCULATION SYSTEM</u>				
SSA1 (1)	Az 315 ⁰ , E1. 117'	I	No	No
SSA2 (1)	Az 328 ⁰ , E1. 125'	I	No	Yes
SSA3 (1)	Az 302 ⁰ , E1. 125'	I	No	Yes
SSA4 (1)	Az 328 ⁰ , E1. 131'	I	No	Yes
SSA5 (1)	Az 301 ⁰ , E1. 131'	I	No	No
SSA6 (1)	Az 315 ⁰ , E1. 137'	I	No	Yes
SSA7 (1)	Az 018 ⁰ , E1. 124'	I	No	Yes
SSA8 (1)	Az 342 ⁰ , E1. 123'	I	No	Yes
SSA12 (1)	Az 255 ⁰ , E1. 129'	I	No	No
SSA13 (1)	Az 285 ⁰ , E1. 129'	I	No	No
SSA14 (1)	Az 270 ⁰ , E1. 121'	I	No	No
SSA15 (1)	Az 323 ⁰ , E1. 144'	I	No	Yes
SSA16 (1)	Az 217 ⁰ , E1. 144'	I	No	Yes

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7.4-1a provided that a revision to Table 3.7.4-1a is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that the revision to Table 3.7.4-1a is included with the next License Amendment request.

TABLE 3.7.4-1a

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION Reactor Building	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
2B31-REACTOR RECIRCULATION SYSTEM (Continued)				
SSA17 (1)	Az 270 ⁰ , El. 125'	I	No	Yes
SSA19 (1)	Az 270 ⁰ , El. 138'	I	No	Yes
SSA20 (1)	Az 270 ⁰ , El. 138'	I	No	Yes
SSA21 (1)	Az 0 ⁰ , El. 140'	I	No	Yes
SSA22 (1)	Az 0 ⁰ , El. 140'	I	No	Yes
SSB1 (1)	Az 135 ⁰ , El. 117'	I	No	Yes
SSB2 (1)	Az 148 ⁰ , El. 125'	I	No	No
SSB3 (1)	Az 122 ⁰ , El. 125'	I	No	Yes
SSB4 (1)	Az 148 ⁰ , El. 131'	I	No	Yes
SSB5 (1)	Az 122 ⁰ , El. 131'	I	No	Yes
SSB6 (1)	Az 135 ⁰ , El. 137'	I	No	No
SSB7 (1)	Az 198 ⁰ , El. 124'	I	No	Yes
SSB8 (1)	Az 162 ⁰ , El. 123'	I	No	Yes
SSB12 (1)	Az 075 ⁰ , El. 129'	I	No	Yes
SSB13 (1)	Az 105 ⁰ , El. 129'	I	No	No
SSB14 (1)	Az 090 ⁰ , El. 121'	I	No	No
SSB15 (1)	Az 143 ⁰ , El. 144'	I	No	No
SSB16 (1)	Az 037 ⁰ , El. 144'	I	No	Yes
SSB17 (1)	Az 90 ⁰ , El. 126'	I	No	Yes
SSB19 (1)	Az 90 ⁰ , El. 138'	I	No	Yes
SSB20 (1)	Az 90 ⁰ , El. 138'	I	No	Yes
SSB21 (1)	Az 180 ⁰ , El. 140'	I	No	Yes
SSB22 (1)	Az 180 ⁰ , El. 140'	I	No	Yes

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7.4-1a provided that a revision to Table 3.7.4-1a is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that the revision to Table 3.7.4-1a is included with the next License Amendment request.

TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION		ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
	<u>Reactor Building</u>			DURING SHUTDOWN** (Yes or No)	
<u>2B21-Nuclear Boiler System</u>					
MS-R34 (1)	Az. 110 ⁰	El. 155'	I	No	Yes
MS-R35 (1)	Az. 145 ⁰	El. 150'	I	No	Yes
MS-R36 (1)	Az. 145 ⁰	El. 150'	I	No	Yes
MS-R37 (2)	Az. 145 ⁰	El. 150'	I	No	Yes
MS-R38 (2)	Az. 72 ⁰	El. 167'	I	No	Yes
MS-R39 (2)	Az. 95 ⁰	El. 150'	I	No	Yes
MS-R41 (1)	Az. 100 ⁰	El. 150'	I	No	Yes
MS-R42 (1)	Az. 140 ⁰	El. 150'	I	No	Yes
MS-R43 (1)	Az. 130 ⁰	El. 150'	I	No	Yes
MS-R44 (2)	Az. 140 ⁰	El. 150'	I	No	Yes
MS-R45 (1)	Az. 250 ⁰	El. 156'	I	No	Yes
MS-R46 (1)	Az. 250 ⁰	El. 156'	I	No	Yes
MS-R47 (1)	Az. 220 ⁰	El. 150'	I	No	Yes
MS-R48 (1)	Az. 220 ⁰	El. 150'	I	No	Yes
MS-R49 (2)	Az. 288 ⁰	El. 167'	I	No	Yes
MS-R50 (2)	Az. 270 ⁰	El. 150'	I	No	Yes
MS-R52 (1)	Az. 265 ⁰	El. 150'	I	No	Yes
MS-R53 (2)	Az. 235 ⁰	El. 150'	I	No	Yes
MS-R54 (1)	Az. 235 ⁰	El. 150'	I	No	Yes
MS-R55 (1)	Az. 235 ⁰	El. 150'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>2B21-Nuclear Boiler System (Continued)</u>				
MSRV-R36 (1)	Az. 230 ⁰ El. 137'	I	No	Yes
MSRV-R37 (1)	Az. 230 ⁰ El. 133'	I	No	Yes
MSRV-R38 (1)	Az. 230 ⁰ El. 133'	I	No	Yes
MSRV-R40 (1)	Az. 230 ⁰ El. 125'	I	No	Yes
MSRV-R41 (1)	Az. 225 ⁰ El. 122'	I	No	Yes
MSRV-R45 (2)	Az. 165 ⁰ El. 119'	I	No	Yes
MSRV-R46 (2)	Az. 250 ⁰ El. 155'	I	No	Yes
MSRV-R50 (1)	Az. 270 ⁰ El. 150'	I	No	Yes
MSRV-R52 (2)	Az. 175 ⁰ El. 150'	I	No	Yes
MSRV-R53 (1)	Az. 105 ⁰ El. 149'	I	No	Yes
MSRV-R54 (1)	Az. 80 ⁰ El. 137'	I	No	Yes
MSRV-R56 (1)	Az. 70 ⁰ El. 131'	I	No	Yes
MSRV-R57 (1)	Az. 70 ⁰ El. 135'	I	No	Yes
MSRV-R58 (1)	Az. 70 ⁰ El. 125'	I	No	Yes
MSRV-R59 (2)	Az. 125 ⁰ El. 154'	I	No	Yes
MSRV-R60 (2)	Az. 120 ⁰ El. 152'	I	No	Yes
MSRV-R62 (1)	Az. 90 ⁰ El. 131'	I	No	Yes
MSRV-R63 (1)	Az. 90 ⁰ El. 132'	I	No	Yes
MSRV-R64 (1)	Az. 90 ⁰ El. 125'	I	No	Yes
MSRV-R65 (1)	Az. 100 ⁰ El. 120'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>		<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
	<u>Reactor Building</u>		<u>(A or I)</u>	<u>(Yes or No)</u>	<u>(Yes or No)</u>
<u>2B21-Nuclear Boiler System (Continued)</u>					
MSRV-R67 (2)	Az. 235 ⁰	El. 146'	I	No	Yes
MSRV-R68 (1)	Az. 235 ⁰	El. 146'	I	No	Yes
MSRV-R69 (1)	Az. 235 ⁰	El. 141'	I	No	Yes
MSRV-R70 (1)	Az. 235 ⁰	El. 137'	I	No	Yes
MSRV-R71 (1)	Az. 245 ⁰	El. 133'	I	No	Yes
MSRV-R72 (1)	Az. 245 ⁰	El. 133'	I	No	Yes
MSRV-R73 (1)	Az. 245 ⁰	El. 130'	I	No	Yes
MSRV-R75 (1)	Az. 255 ⁰	El. 154'	I	No	Yes
MSRV-R76 (1)	Az. 250 ⁰	El. 146'	I	No	Yes
MSRV-R77 (1)	Az. 250 ⁰	El. 137'	I	No	Yes
MSRV-R78 (1)	Az. 250 ⁰	El. 136'	I	No	Yes
MSRV-R79 (1)	Az. 250 ⁰	El. 133'	I	No	Yes
MSRV-R80 (1)	Az. 250 ⁰	El. 132'	I	No	Yes
MSRV-R82 (1)	Az. 95 ⁰	El. 148'	I	No	Yes
MSRV-R83 (2)	Az. 95 ⁰	El. 145'	I	No	Yes
MSRV-R84 (1)	Az. 90 ⁰	El. 137'	I	No	Yes
MSRV-R87 (1)	Az. 65 ⁰	El. 132'	I	No	Yes
MSRV-R88 (1)	Az. 65 ⁰	El. 127'	I	No	Yes
MSRV-R89 (1)	Az. 65 ⁰	El. 125'	I	No	Yes
MSRV-R90 (1)	Az. 115 ⁰	El. 145'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE</u> <u>DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>2B21-Nuclear Boiler System (Continued)</u>				
MSRV-R91 (1)	Az. 110 ⁰ El. 137'	I	No	Yes
MSRV-R92 (1)	Az. 110 ⁰ El. 132'	I	No	Yes
MSRV-R93 (1)	Az. 110 ⁰ El. 125'	I	No	Yes
MSRV-R94 (1)	Az. 95 ⁰ El. 120'	I	No	Yes
MSRV-R96 (2)	Az. 285 ⁰ El. 152'	I	No	Yes
MSRV-R97 (1)	Az. 285 ⁰ El. 152'	I	No	Yes
MSRV-R98 (1)	Az. 290 ⁰ El. 150'	I	No	Yes
MSRV-R99 (2)	Az. 320 ⁰ El. 150'	I	No	Yes
MSRV-R100 (1)	Az. 330 ⁰ El. 146'	I	No	Yes
MSRV-R101 (1)	Az. 330 ⁰ El. 140'	I	No	Yes
MSRV-R103 (1)	Az. 340 ⁰ El. 129'	I	No	Yes
MSRV-R104 (2)	Az. 340 ⁰ El. 126'	I	No	Yes
MSRV-R105 (1)	Az. 75 ⁰ El. 152'	I	No	Yes
MSRV-R106 (1)	Az. 75 ⁰ El. 152'	I	No	Yes
MSRV-R107 (1)	Az. 60 ⁰ El. 150'	I	No	Yes
MSRV-R108 (2)	Az. 30 ⁰ El. 150'	I	No	Yes
MSRV-R109 (1)	Az. 30 ⁰ El. 150'	I	No	Yes
MSRV-R110 (1)	Az. 25 ⁰ El. 137'	I	No	Yes
MSRV-R111 (1)	Az. 22 ⁰ El. 132'	I	No	Yes
MSRV-R113 (1)	Az. 270 ⁰ El. 154'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>2B21-Nuclear Boiler System (Continued)</u>				
MSRV-R114 (1)	Az. 270 ⁰ El. 146'	I	No	Yes
MSRV-R115 (1)	Az. 270 ⁰ El. 137'	I	No	Yes
MSRV-R116 (1)	Az. 270 ⁰ El. 133'	I	No	Yes
MSRV-R118 (1)	Az. 270 ⁰ El. 125'	I	No	Yes
MSRV-R119 (1)	Az. 270 ⁰ El. 120'	I	No	Yes
MSRV-R121 (2)	Az. 230 ⁰ El. 141'	I	No	Yes
RFW-20 (2)	Az. 100 ⁰ El. 150'	I	No	Yes
RFW-31 (2)	Az. 260 ⁰ El. 150'	I	No	Yes
S67-H10 (1)	Az. 167 ⁰ El. 134'	I	No	Yes
S67-H11 (1)	Az. 114 ⁰ El. 135'	I	No	Yes
S67-H12 (1)	Az. 45 ⁰ El. 136'	I	No	Yes
S67-H13 (1)	Az. 32 ⁰ El. 136'	I	No	Yes
S67-H14 (1)	Az. 22 ⁰ El. 136'	I	No	Yes
S128-H4 (1)	Az. 240 ⁰ El. 192'	I	No	Yes
S143-H1 (1)	Az. 40 ⁰ El. 195'	I	No	Yes
S143-H2 (2)	Az. 30 ⁰ El. 189'	I	No	Yes
S143-H3 (2)	Az. 30 ⁰ El. 184'	I	No	Yes
S143-H4 (2)	Az. 30 ⁰ El. 179'	I	No	Yes
S143-H5 (1)	Az. 30 ⁰ El. 196'	I	No	Yes
S146-H6 (1)	Az. 15 ⁰ El. 191'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
	<u>Reactor Building</u>			
<u>2B21-Nuclear Boiler System (Continued)</u>				
S148-H1 (1)	Az. 212 ⁰ El. 195'	I	No	Yes
S148-H2 (2)	Az. 210 ⁰ El. 189'	I	No	Yes
S148-H3 (2)	Az. 210 ⁰ El. 184'	I	No	Yes
S148-H4 (2)	Az. 210 ⁰ El. 179'	I	No	Yes
S158-H5 (2)	Az. 212 ⁰ El. 194' & 196'	I	No	Yes
<u>2B31-Reactor Recirculation System</u>				
S14-H1 (1)	Az. 170 El. 125'	I	No	Yes
S17-H1 (1)	Az. 198 ⁰ El. 126'	I	No	Yes
S18-H1 (1)	Az. 65 ⁰ El. 126'	I	No	Yes
S24-H1 (1)	Az. 309 ⁰ El. 123'	I	No	Yes
S40-H1 (1)	Az. 110 ⁰ El. 120'	I	No	Yes
S43-H1 (1)	Az. 155 ⁰ El. 187'	I	No	Yes
<u>2E11-RHR System</u>				
R338 (1)	Az. 00 El. 146'	I	No	Yes
R339 (1)	Az. 355 ⁰ El. 155'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>2E11-RHR System (Continued)</u>				
R340 (1)	Az. 342 ⁰ El. 155'	I	No	Yes
R342 (1)	Az. 337 ⁰ El. 140'	I	No	Yes
R350 (1)	Az. 80 ⁰ El. 150'	I	No	Yes
R351 (2)	Az. 305 ⁰ El. 150'	I	No	Yes
R352 (2)	Az. 325 ⁰ El. 150'	I	No	Yes
R353 (1)	Az. 328 ⁰ El. 146'	I	No	Yes
R354 (1)	Az. 328 ⁰ El. 146'	I	No	Yes
R355 (1)	Az. 285 ⁰ El. 150'	I	No	Yes
R356 (2)	Az. 55 ⁰ El. 150'	I	No	Yes
R357 (2)	Az. 37 ⁰ El. 150'	I	No	Yes
R358 (1)	Az. 33 ⁰ El. 146'	I	No	Yes
R359 (1)	Az. 38 ⁰ El. 146'	I	No	Yes
R368 (1)	Az. 20 ⁰ El. 206'	I	No	Yes
<u>2E21-Core Spray System</u>				
R59 (2)	Az. 90 ⁰ El. 178'	I	No	Yes
R98 (2)	Az. 267 ⁰ El. 178'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> (Yes or No)	<u>ESPECIALLY DIFFICULT TO REMOVE</u> (Yes or No)
<u>2E41-HPCI System</u>				
R110 (1)	Az. 18 ⁰ El. 145'	I	No	Yes
R111 (1)	Az. 19 ⁰ El. 145'	I	No	Yes
R112 (1)	Az. 12 ⁰ El. 145'	I	No	Yes
R113 (2)	Az. 11 ⁰ El. 145'	I	No	Yes
R114 (1)	Az. 46 ⁰ El. 145'	I	No	Yes
R115 (2)	Az. 56 ⁰ El. 145'	I	No	Yes
<u>2E51-RCIC System</u>				
R114 (1)	Az. 213 ⁰ El. 146'	I	No	Yes
R116 (1)	Az. 186 ⁰ El. 142'	I	No	Yes
R117 (1)	Az. 186 ⁰ El. 142'	I	No	Yes
<u>2G31-RWCU System</u>				
R166 (1)	Az. 13 ⁰ El. 149'	I	No	Yes
R167 (2)	Az. 17 ⁰ El. 156'	I	No	Yes
R168 (1)	Az. 17 ⁰ El. 162'	I	No	Yes

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

SNUBBER NO. (Qty.)	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION <u>Reactor Building</u>	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
<u>2E11-RHR System</u>				
R91 (2)	38'SR14-23'WRL, El. 119'	A	No	No
R92 (2)	14'SR14-22'WRF, El. 119'	A	No	No
R103 (2)	35'SR14-26'WRL, El. 119'	A	No	No
R105 (2)	9'NR24-11'WRF, El. 118'	A	No	No
R106 (1)	9'NR24-11'WRF, El. 118'	A	No	No
R123 (1)	1'SR22-13'WRH, El. 169'	A	No	No
R125 (1)	6'SR22-12'WRF, El. 167'	A	No	No
R224 (1)	24'SR14-29'WRL, El. 90'	A	No	No
R225 (1)	29'SR14-29'WRL, El. 90'	A	No	No
R226 (2)	23'SR14-27'WRL, El. 90'	A	No	No
R228 (1)	18'SR14-23'WRL, El. 90'	A	No	No
R229 (1)	28'NR24-29'WRL, El. 90'	A	No	No
R230 (1)	25'SR14-30'WRL, El. 90'	A	No	No
R233 (2)	23'NR24-28'WRL, El. 90'	A	No	No
R235 (1)	13'SR14-13'WRL, El. 121'	A	No	No
R240 (1)	24'NR24-28'WRL, El. 90'	A	No	No
R289 (1)	13'NR24-13'WRL, El. 121'	A	No	No
R290 (2)	25'SR14-28'WRL, El. 120'	A	No	No
R292 (2)	36'SR14- 1'WRL, El. 118'	A	No	No
R295 (2)	25'NR24-28'WRL, El. 120'	A	No	No
R297 (2)	36'SR14-21'WRL, El. 118'	A	No	No

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TABLE 3.7.4-1b

SAFETY RELATED MECHANICAL SNUBBERS*

<u>SNUBBER NO. (Qty.)</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u> <u>Reactor Building</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> <u>(A or I)</u>	<u>HIGH RADIATION ZONE DURING SHUTDOWN**</u> <u>(Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u> <u>(Yes or No)</u>
<u>2E11-RHR System (Continued)</u>				
R326 (1)	18'SR19-17'ERH, El. 136'	A	No	No
R327 (1)	18'SR19-17'ERH, El. 136'	A	No	No
R328 (1)	18'SR19-10'WRH, El. 139'	A	No	No
R329 (1)	18'SR19-10'WRH, El. 139'	A	No	No
S4-H1 (1)	19'SR19-25'WRL, El. 123'	A	No	No
<u>2E32-MSIV Leakage Control System</u>				
S11-H1 (1)	21'NR21- 5'WRB, El. 118'	A	No	No
S17-H1 (1)	20'NR21-21'WRB, El. 118'	A	No	No
S18-H1 (1)	21'NR21- 4'WRB, El. 119'	A	No	No
S19-H1 (1)	21'NR21- 5'WRB, El. 117'	A	No	No
<u>2E41-HPCI System</u>				
R45 (2)	23'NR25-5'WRL, El. 117'	A	No	No
R50 (2)	10'NR25-4'ERG, El. 110'	A	No	No
R55 (2)	10'NR25-24'WRL, El. 96'	A	No	No
<u>2E51-RCIC System</u>				
S6-H1 (1)	5'NR19-22'ERA, El. 129'	A	No	No

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PLANT SYSTEMS

BASES

3/4.7.4 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on non-safety related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection or are similarly located or exposed to the same environmental conditions, such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdown at 18-month intervals. Observed failures of sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

PLANT SYSTEMS

BASES

3/4.7.4 SNUBBERS (Continued)

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4.7.5 SEALED SOURCE CONTAMINATION

The limitations on sealed source removable contamination ensure that the total body or individual organ irradiation does not exceed allowable limits in the event of ingestion or inhalation of the source material. The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. Quantities of interest to this specification which are exempt from the leakage testing are consistent with the criteria of 10 CFR Part 30.11-20 and 70.19. Leakage from sources excluded from the requirements of this specification is not likely to represent more than one maximum permissible body burden for total body irradiation if the source material is inhaled or ingested.

3/4.7.6 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO₂, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

ADMINISTRATIVE CONTROL

RECORD RETENTION (Continued)

- c. Records of radiation exposure for all individuals entering radiation control areas.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those unit components identified in Table 5.7.1-1.
- f. Records of reactor tests and experiments.
- g. Records of training and qualification for current members of the unit staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- 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 PRB and the SRB.
- l. Records of the service lives of all hydraulic and mechanical snubbers listed on Tables 3.7.4-1a and 3.7.4-1b, including the date at which the service life commences and associated installation and maintenance records.

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 20, each 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 requiring issuance of a Radiation Work Permit*. Any individual or groups of individuals permitted

*Health Physics personnel, or personnel escorted by Health Physics personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.