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3.0 LIMITING CONDITIONS FOR OPERATION

H. Snubbers

1. Except as permitted below, all snubbers listed in Table 3.6.1 shall be operable above Cold Shutdown. Snubbers may be inoperable in Cold Shutdown and Refueling Shutdown whenever the supported system is not required to be Operable.
2. With one or more snubbers made or found to be inoperable for any reason when Operability is required, within 72 hours:
 - a. Replace or restore the inoperable snubbers to Operable status and perform an engineering evaluation or inspection of the supported components, or
 - b. Determine through engineering evaluation that the as-found condition of the snubber had no adverse effect on the supported components and that they would retain their structural integrity in the event of the design basis seismic event, or
 - c. Declare the supported system inoperable and take the action required by the Technical Specifications for inoperability of that system.

4.0 SURVEILLANCE REQUIREMENTS

3. The diffuser to lower plenum differential pressure reading on an individual jet pump is 10% or more, less than the mean of all jet pump differential pressures.

H. Snubbers

The following surveillance requirements apply to all snubbers listed in Table 3.6.1.

1. Visual inspection of snubbers shall be conducted in accordance with the following schedule:

No. of Snubbers Found Inoperable per Inspection Period	Next Required Inspection Period
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 required inspection interval shall not be lengthened more than one step at a time.

Snubbers may be categorized in two groups, "accessible" or "inaccessible" based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

3.0 LIMITING CONDITIONS FOR OPERATION

3. Snubber modifications may be made to safety related systems without prior License Amendment to Table 3.6.1 provided that a revision to the Table is included with the next License Amendment Request.

4.0 SURVEILLANCE REQUIREMENTS

2. Visual inspections shall verify (1) that there are no visible indications of damage or impaired operability and (2) attachments to the supporting structure are secure. Snubbers which appear inoperable as a result of visual inspection may be determined Operable for the purpose of establishing the next visual inspection interval by:
 - a. Clearly establishing the cause of the rejection for that particular snubber and for others that may be generically susceptible; and
 - b. Functionally testing the affected snubber in the as-found condition and finding it Operable per Specification 4.6.H.4.

However, when the fluid plunger gauge of a hydraulic snubber is below low range, the snubber shall be considered inoperable for the purposes of establishing the next visual inspection interval.

3.0 LIMITING CONDITIONS FOR OPERATION

4.0 SURVEILLANCE REQUIREMENTS

3. Functional testing of snubbers shall be conducted at least once per 18 months + 25% during cold shutdown. Ten percent of the total number of such brand of snubber shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria in Specification 4.6.H.4 below, an additional ten percent of that brand shall be functionally tested until no more failures are found or all snubbers of that brand have been tested.

The representative sample selected for functional testing shall, to the extent it is practical, include the various configurations, operating environments, and the range of size and capacity of the snubbers.

In addition to the regular sample and specified re-samples, snubbers which failed the previous functional test shall be retested during the next test period if they were reinstalled as a safety-related snubber. If a spare snubber has been installed in place of a failed safety related snubber, it shall be tested during the next period.

If any snubber selected for functional testing either fails to lockup or fails to move (i.e. frozen in place) the cause shall 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.

3.0 LIMITING CONDITIONS FOR OPERATION

4.0 SURVEILLANCE REQUIREMENTS

4. Hydraulic snubber functional tests 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, is demonstrated.
5. An engineering evaluation or inspection shall be performed for all components supported by inoperable snubbers where the possibility exists the components were adversely affected to ensure they remain capable of meeting the designed service.
6. The installation and maintenance records for each snubber listed in Table 3.6.1 shall be reviewed at least once every 18 months to verify that the indicated service life will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned 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.

TABLE 3.6.1
SAFETY RELATED HYDRAULIC SNUBBERS

SNUBBER NO.	SYSTEM	LOCATION	ELEVATION	AZIMUTH (AIRLOCK 0 REF)	ACCESSIBLE -A (INACCESSIBLE-1)
PS1-H2	MAIN STEAM	DRYWELL	955	071	1
PS1-H3	MAIN STEAM	DRYWELL	950	148	1
PS2-H2	MAIN STEAM	DRYWELL	950	120	1
PS3-H2	MAIN STEAM	DRYWELL	950	240	1
PS4-H3	MAIN STEAM	DRYWELL	950	212	1
RV24-H3	SAFETY-RELIEF	DRYWELL	950	110	1
RV24-H4	SAFETY-RELIEF	DRYWELL	935	100	1
RV24-H4A	SAFETY-RELIEF	DRYWELL	935	100	1
RV24-H5	SAFETY-RELIEF	DRYWELL	935	110	1
RV24-N1	SAFETY-RELIEF	DRYWELL	955	090	1
RV24A-H4A	SAFETY-RELIEF	DRYWELL	947	048	1
RV24A-H7	SAFETY-RELIEF	DRYWELL	953	115	1
RV24A-H8	SAFETY-RELIEF	DRYWELL	939	032	1
RV24A-N1	SAFETY-RELIEF	DRYWELL	950	086	1
RV25-H1	SAFETY-RELIEF	DRYWELL	953	180	1
RV25-H1A	SAFETY-RELIEF	DRYWELL	953	180	1
RV25-H2	SAFETY-RELIEF	DRYWELL	948	190	1
RV25-H2A	SAFETY-RELIEF	DRYWELL	948	190	1
RV25-H3	SAFETY-RELIEF	DRYWELL	934	180	1
RV25A-H2	SAFETY-RELIEF	DRYWELL	945	120	1
RV25A-H2A	SAFETY-RELIEF	DRYWELL	945	120	1
RV25A-H7	SAFETY-RELIEF	DRYWELL	953	135	1
RV26-H1	SAFETY-RELIEF	DRYWELL	953	200	1
RV26-H1A	SAFETY-RELIEF	DRYWELL	953	200	1
RV26-H2	SAFETY-RELIEF	DRYWELL	947	200	1
RV26-H2A	SAFETY-RELIEF	DRYWELL	947	200	1
RV26-N1	SAFETY-RELIEF	DRYWELL	956	200	1
RV26A-H2	SAFETY-RELIEF	DRYWELL	940	250	1
RV26A-H2A	SAFETY-RELIEF	DRYWELL	935	250	1
RV26A-N1	SAFETY-RELIEF	DRYWELL	950	250	1
RV26A-N2	SAFETY-RELIEF	DRYWELL	951	250	1
RV27-H1	SAFETY-RELIEF	DRYWELL	950	320	1
RV27-H1A	SAFETY-RELIEF	DRYWELL	950	230	1
RV27-H5	SAFETY-RELIEF	DRYWELL	945	270	1
RV27-H6	SAFETY-RELIEF	DRYWELL	945	270	1
RV27-N1	SAFETY-RELIEF	DRYWELL	956	270	1
RV27A-H2A	SAFETY-RELIEF	DRYWELL	953	290	1
RV27A-H3	SAFETY-RELIEF	DRYWELL	953	290	1
RV27A-H9	SAFETY-RELIEF	DRYWELL	938	290	1
RV27A-N1	SAFETY-RELIEF	DRYWELL	956	270	1
SS-1	MAIN STEAM	DRYWELL	953	279	1
SS-1A	RECIRCULATION	DRYWELL	922	315	1
SS-1B	RECIRCULATION	DRYWELL	922	135	1
SS-11	FEEDWATER	DRYWELL	952	302	1
SS-12	FEEDWATER	DRYWELL	952	058	1
SS-13	FEEDWATER	DRYWELL	952	258	1
SS-14	FEEDWATER	DRYWELL	952	096	1

TABLE 3.6.1
SAFETY RELATED HYDRAULIC SNUBBERS

SNUBBER NO.	SYSTEM	LOCATION	ELEVATION	AZIMUTH (AIRLOCK 0 REF)	ACCESSIBLE -A INACCESSIBLE-I
SS-17A	RHK	DRYWELL	904	072	I
SS-17B	RHR	DRYWELL	904	072	I
SS-18A	RHR	DRYWELL	904	288	I
SS-18B	RHR	DRYWELL	904	288	I
SS-19	RHK	DRYWELL	904	341	I
SS-2	MAIN STEAM	DRYWELL	953	061	I
SS-2AK	RECIRCULATION	DRYWELL	927	302	I
SS-2BR	RECIRCULATION	DRYWELL	927	122	I
SS-2C	RHR	DRYWELL	904	019	I
SS-3	MAIN STEAM	DRYWELL	950	212	I
SS-3AK	RECIRCULATION	DRYWELL	927	328	I
SS-3BK	RECIRCULATION	DRYWELL	927	148	I
SS-4	MAIN STEAM	DRYWELL	950	148	I
SS-4AR(A)	RECIRCULATION	DRYWELL	934	302	I
SS-4AR(B)	RECIRCULATION	DRYWELL	934	323	I
SS-4BR(A)	RECIRCULATION	DRYWELL	934	120	I
SS-4BR(B)	RECIRCULATION	DRYWELL	934	149	I
SS-40	HPCI	MAIN STEAM CHASE			I
SS-5AR	RECIRCULATION	DRYWELL	941	315	I
SS-5BK	RECIRCULATION	DRYWELL	941	135	I
SS-6AR	RECIRCULATION	DRYWELL	953	261	I
SS-6BR	RECIRCULATION	DRYWELL	953	099	I
SS-7	MAIN STEAM	DRYWELL	953	240	I
SS-7AK	RECIRCULATION	DRYWELL	953	323	I
SS-7BK	RECIRCULATION	DRYWELL	953	032	I
SS-8	MAIN STEAM	DRYWELL	953	120	I
SS-8AK	RECIRCULATION	DRYWELL	927	270	I
SS-8BK	RECIRCULATION	DRYWELL	927	090	I
SS-21	RHK	TORUS FL LV - S WALL			A
SS-22	RHR	TORUS FL LV - S WALL			A
SS-23	RHK	B RHR ROOM FL LV			A
SS-24	RHR	A RHR ROOM FL LV			A
SS-25	RHR	TEGRUS CATWK-SE WALL			A
SS-26	COKE SPRAY	B RHR ROOM FL LVL			A
SS-27	COKE SPRAY	B RHR ROOM FL LVL			A
SS-28A	COKE SPRAY	A RHR ROOM FL LVL			A
SS-28B	COKE SPRAY	A RHR ROOM FL LVL			A
SS-29	RHR	OVER N2 ANALYZER	954		A
SS-30	RHR	OVER N2 ANALYZER	954		A
SS-31	RHK	TORUS CATWK			A
SS-32A	RHK	A RHR ROOM - EY HX	916		A
SS-32B	RHR	A RHR ROOM - BY HX	916		A
SS-33	RHK	ABOVE TORUS			A
SS-34	RHK	ABOVE TORUS			A
SS-35	HPCI	HPCI ROOM - N WALL	912		A
SS-36A	HPCI	HPCI ROOM - FL LVL			A
SS-36B	HPCI	HPCI ROOM - FL LVL			A

TABLE 3.6.1
SAFETY RELATED HYDRAULIC SNUBBERS

SNUBBER NO.	SYSTEM	LOCATION	ELEVATION	AZIMUTH (AIRLOCK 0 REF)	ACCESSIBLE -A INACCESSIBLE-I
SS-37	HPCI	HPCI ROOM - W WALL	905		A
SS-38A	RCIC	RCIC ROOM - W WALL	906		A
SS-38B	RCIC	RCIC ROOM - W WALL	906		A
SS-41	CORE SPRAY	ABOVE TORUS CATWALK	927		A
SS-42	HPCI	ABOVE TORUS RING HDR	906		A

Bases Continued 3.6 and 4.6:

A nozzle-riser system failure could also generate the coincident failure of a jet pump body; however, the converse is not true. The lack of any substantial stress in the jet pump body makes failure impossible without an initial nozzle-riser system failure.

H. Snubbers

All snubbers are required to be operable above Cold Shutdown 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 feature directly related to rejection of the snubber.

When a snubber is found inoperable, an engineering evaluation or inspection 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 evaluation or inspection will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

H. Snubbers (continued)

To provide assurance of snubber functional reliability, a representative sample of 10% of the installed snubbers will be functionally tested during plant shutdowns at intervals of no more than 18 months + 25%. Observed failures of these sample snubbers will require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer input and 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.

All safety-related snubbers installed or planned for use at Monticello are hydraulic snubbers. No mechanical snubbers are used on safety related systems at Monticello. If installed in the future, appropriate Technical Specification changes will be proposed within 60 days of installation.

5. Principal maintenance activities, including inspection, repairs and substitution or replacement of principal items of equipment pertaining to nuclear safety.
6. Records of changes to plant procedures and records of special tests and experiments.
7. Records of wind speed and direction.
8. Records of individual plant staff members showing qualifications, training and retraining.
9. Reportable Occurrences.

B. Records Retained for Plant Life

Records and logs relative to the following items shall be retained for the life of the plant:

1. Liquid and gaseous radioactive releases to the environs
2. ~~Radiation exposures for all plant, visitor and contractor personnel~~
3. Off-site environmental monitoring surveys
4. Fuel accountability including new and spent fuel inventories and transfers, and fuel assembly histories
5. Radioactive shipments
6. Plant radiation and contamination surveys
7. Changes made to the plant as it is described in the Final Safety Analysis Report, reflected in updated, corrected and as-built drawings
8. Cycling beyond normal limits for those components that have been designed to operate safely for a limited number of cycles beyond such limits
9. Reactor coolant system in-service inspections
10. Minutes of meetings of the Safety Audit Committee

B. Records Retained for Plant Life (continued)

11. Records for Environmental Qualification which are covered under the provisions of paragraph 6.8.
12. Records of the service lives of all safety-related snubbers, including the date at which the service life commences and associated installation and maintenance records.