

## PLANT SYSTEMS

### 3/4.7.4 SNUBBERS

#### LIMITING CONDITION FOR OPERATION

3.7.4 All snubbers shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3. OPERATIONAL CONDITIONS 4 and 5 for snubbers located on systems required OPERABLE in those OPERATIONAL CONDITIONS.

#### 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.g on the attached component or declare the attached 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 augmented inservice inspection program and the requirements of Specification 4.0.5.

##### a. Inspection Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

##### b. Visual Inspections *A visual inspection of all snubbers shall be performed according to the schedule determined by Table 4.7.4-1.*

*Categories* Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these groups (inaccessible and accessible) may be inspected independently, according to the schedule below. The first inservice visual inspection of each type of snubber shall be performed after 4 months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If all snubbers of each type are found OPERABLE during the first inservice visual inspection, the second inservice visual inspection shall be performed at the first refueling outage. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule: ↑

*The visual inspection for each type of snubber shall be determined based on the criteria provided in Table 4.7.4-1 and the initial inspection interval utilizing this criteria shall be 18 months, beginning from the conclusion of the last visual inspection conducted during RFO 4.*

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

No. Inoperable Snubbers of Each Type per Inspection Period	Subsequent Visual Inspection Period*#
0	18 months $\pm$ 25%
1	12 months $\pm$ 25%
2	6 months $\pm$ 25%
3,4	124 days $\pm$ 25%
5,6,7	62 days $\pm$ 25%
8 or more	31 days $\pm$ 25%

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify <sup>that</sup> (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are secure. 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 irrespective of type on that system that may be generically susceptible; and/or (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specifications 4.7.4.f. For those snubbers common to more than one system, the OPERABILITY of such snubbers shall be considered in assessing the surveillance schedule for each of the related systems.

shall be classified as unacceptable; however, they may be reclassified acceptable

d. Transient Event Inspection

An inspection shall be performed of all snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients, as determined from a review of operational data or a visual inspection of the systems, within 72 hours for accessible systems and 6 months for inaccessible systems following this determination. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement; or (2) evaluation of in-place snubber piston setting; or (3) stroking the mechanical snubber through its full range of travel.

\*The inspection interval for each type of snubber shall not be lengthened more than one step at a time unless a generic problem has been identified and corrected; in that event the inspection interval may be lengthened one step the first time and two steps thereafter if no inoperable snubbers of that type are found.

#The provisions of Specification 4.0.2 are not applicable.

TABLE 4.7.4-1  
 SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, PNPP must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use the next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

TABLE 4.7.4-1 (continued)

- Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.
- Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.
- Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation; that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the snubbers in Columns B and C.
- Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

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 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.

Snubbers are classified and grouped by design and manufacturer but not by size. For example, mechanical snubbers utilizing the same design features of the 2-kip, 10-kip, and 100-kip capacity manufactured by Company "A" are of the same type. The same design mechanical snubbers manufactured by Company "B" for the purposes of this Technical Specification would be of a different type, as would hydraulic snubbers from either manufacturer.

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with Section 50.71(c) of 10 CFR Part 50. The accessibility of each snubber shall be determined and approved by the Plant Operations Review Committee. The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guide 8.8 and 8.10. The addition or deletion of any snubber shall be made in accordance with Section 50.59 of 10 CFR Part 50.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to each safety-related system. Therefore, the required inspection interval varies inversely with the observed snubber failures on a given system and is determined by the number of inoperable snubbers found during an inspection of each system. In order to establish the inspection frequency for each type of snubber on a safety-related system, it was assumed that the frequency of snubber failures and initiating events is constant with time and that the failure of any snubber on that system could cause the system to be unprotected and to result in failure during an assumed initiating event. 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 required a shorter inspection interval will override the previous schedule.

The acceptance criteria are to be used in the visual inspection to determine OPERABILITY of the snubbers.

To provide assurance of snubber functional reliability one of three functional testing methods is used with the stated acceptance criteria:

the total population or category size for each snubber type, and the previous inspection interval.



## SIGNIFICANT HAZARDS CONSIDERATION

The standards used to arrive at a determination that a proposed amendment involves a no significant hazards consideration are included in the Commission's Regulations, 10 CFR 50.92, which state that the operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The proposed change has been reviewed for PNPP and has been determined not to involve a significant hazards consideration based on the following.

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Implementing the guidance recommended in GL 90-09 will not introduce any new failure mode and will not alter any assumptions previously made in evaluating the consequences of an accident. As stated in the GL, the proposed alternate schedule for visual inspections of snubbers will maintain the same operability confidence level as the existing schedule. Also, the surveillance requirement and schedule for snubber functional testing remains the same, providing a 95 percent confidence level that 90 percent to 100 percent of the snubbers operate within the specified acceptance limits. The proposed visual inspection schedule is separate from the functional testing and provides additional confidence that the installed snubbers will serve their design function and are being maintained operable. The proposed change does not affect limiting safety system settings or operating parameters, and does not modify or add any accident initiating events or parameters. No hardware modifications are associated with these changes. Therefore, the proposed change does not significantly increase the probability or consequences of an accident previously evaluated.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Implementing the recommendations provided in GL 90-09 does not involve any physical alterations to plant equipment, changes to setpoints or operating parameters, nor does it involve any accident initiating event. As stated in the GL, the alternate schedule for snubber visual inspections maintains the same confidence level as the existing schedule. In addition to the visual inspections, functional testing of snubbers, which provides a 95 percent confidence level that 90 percent to 100 percent of the snubbers operate within specified acceptance limits, will continue to be performed. Since this TS change does not physically alter the plant equipment and the snubber confidence level remains the same there will not be any new or different accident resulting from snubber failure from any accident previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

The proposed change incorporates surveillance requirements for snubber visual inspection intervals that are consistent with the guidance provided in GL 90-09. As stated in the GL, the proposed snubber visual inspection interval maintains the same confidence level as the existing snubber visual inspection interval. This surveillance requirement does not alter the current Limiting Condition for Operation or the accompanying actions for the snubber(s). The requirement for functional testing of safety-related snubbers is unchanged and remains the basis for the established margin of safety and assures a 95 percent confidence level that 90 percent to 100 percent of the snubbers operate within the specified acceptance limits. The functional testing along with the proposed visual inspection provides adequate assurance that the snubber will perform its intended function. Therefore, the proposed change does not involve a significant reduction in a margin of safety.