Attachment I

Proposed Technical Specification Changes

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

***-To be filled in by NRC.

PLANT SYSTEMS

3/4.7.8 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers shall be OPERABLE. The only snubbers excluded from the requirements are those installed on non-safety-related systems and then only if the failure or the failure of the system on which they are installed would not have an adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES.

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 4.7.8g. on the attached component or declare the attached system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.8 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

Insert A (see attached sheet)

Snubbers are categorized as inaccessible or accessible during reactor operation and may be treated independently. ~~The accessibility of each snubber shall be determined and approved by the Station Health Physicist or qualified designee, prior to performing each visual inspection. The determination shall be based upon the plant existing radiation levels in each snubber location and the expected time to perform the visual inspection and shall be in accordance with the recommendations of Regulatory Guides 8.8 and 8.10.~~

~~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 less than two snubbers of each type are found inoperable during the first inservice visual inspection, the second inservice visual inspection shall be performed 12 months ± 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:~~

SURVEILLANCE REQUIREMENTS (Continued)

INSERT B (see attached sheet)

No. Inoperable Snubbers of Each Type Found During Inspection	Time Until Subsequent Visual Inspection*#
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%

c. Refueling Outage Inspections

At each refueling, the systems which have the potential for a severe dynamic event, specifically, the main steam system (upstream of the main steam isolation valves) the main steam safety and power-operated relief valves and piping, auxiliary feedwater system, main steam supply to the auxiliary feedwater pump turbine, and the letdown and charging portion of the CVCS system shall be inspected to determine if there has been a severe dynamic event. In case of a severe dynamic event, mechanical snubbers in that system which experienced the event shall be inspected during the refueling outage to assure that the mechanical snubbers have freedom of movement and are not frozen up. The inspection shall consist of verifying freedom of motion using one of the following: (1) manually induced snubber movement; (2) evaluation of in-place snubber piston setting; (3) 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 repaired before returning to power. The requirements of Specification 4.7.8b. are independendent of the requirements of this specification.

d. Visual Inspection Acceptance Criteria

Visual inspections shall verify: (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundation or supporting structure 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, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible;

INSERT C

* 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.

d. Visual Inspection Acceptance Criteria (Continued)

INSERT A (see attached sheet)

and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.7.8f. ~~When a fluid port of a hydraulic snubber is found to be uncovered the snubber shall be declared inoperable and shall not be determined OPERABLE via functional testing unless the test is started with the piston in the as-found setting, extending the piston rod in the tension mode direction. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.~~

e. Functional Tests

During the first refueling shutdown and at least once per refueling thereafter, a representative sample of snubbers shall be tested using one of the following sample plans. The large bore steam generator hydraulic snubbers shall be treated as a separate population for functional test purposes. A 10% random sample from previously untested snubbers shall be tested at least once per refueling outage until the entire population has been tested. This testing cycle shall then begin anew. For each large bore steam generator hydraulic snubber that does not meet the functional test acceptance criteria, at least 10% of the remaining population of untested snubbers for that testing cycle shall be tested. The sample plan shall be selected prior to the test period and cannot be changed during the test period. The NRC shall be notified of the sample plan selected prior to the test period.

1) At least 10% of the snubbers required by Specification 3.7.8 shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8f., an additional 10% of the snubbers shall be functionally tested until no more failures are found or until all snubbers have been functionally tested; or

2) A representative sample of the snubbers required by Specification 3.7.8 shall be functionally tested in accordance with Figure 4.7-1. "C" is the total number of snubbers found not meeting the acceptance requirements of Specification 4.7.8f (failures). The cumulative number of snubbers tested is denoted by "N." Test results shall be plotted sequentially in the order of sample assignment (i.e., each snubber shall be plotted by its order in the random sample assignments, not by the order of testing). If at any time the point plotted falls in the "Accept" region, testing of snubbers may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers shall be tested until the point falls in the "Accept" region, or all the snubbers required by Specification 3.7.8 have been tested. Testing equipment failure during functional testing may invalidate that day's testing and allow that day's testing to resume anew at a later time, providing all snubbers tested with the failed equipment during the day of equipment failure are retested; or

No Changes Into Only

SURVEILLANCE REQUIREMENTS (Continued)

e. Functional Tests (Continued)

3) An initial representative sample of fifty-five (55) snubbers shall be functionally tested. For each snubber which does not meet the functional test acceptance criteria, another sample of at least one-half the size of the initial sample shall be tested until the total number tested is equal to the initial sample size multiplied by the factor, 1 + C/2, where "C" is the number of snubbers found which do not meet the functional test acceptance criteria. This can be plotted using an "Accept" line which follows the equation N = 55(1 + C/2). Each snubber should be plotted as soon as it is tested. If the point plotted falls on or below the "Accept" line, testing may be discontinued. If the point plotted falls above the "Accept" line, testing must continue unless all snubbers have been tested.

The representative samples for the functional test sample plans shall be randomly selected from the snubbers required by Specification 3.7.8 and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of sizes, and capacities. Snubbers placed in the same locations as snubbers which failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan. If during the functional testing, additional sampling is required due to failure of only one type of snubber, the functional testing results shall be reviewed at that time to determine if additional samples should be limited to the type of snubber which has failed the functional testing.

f. Functional Test Acceptance Criteria

The snubber functional test shall verify that:

1) Activation (restraining action) is achieved within the specified range in both tension and compression, except that inertia dependent, acceleration limiting mechanical snubbers may be tested to verify only that activation takes place in both directions of travel;

2) Snubber bleed, or release rate where required, is present in both tension and compression, within the specified range;

3) Where required, the force required to initiate or maintain motion of the snubber is within the specified range in both direction of travel; and

4) For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement.

Testing methods may be used to measure parameters indirectly or parameters other than those specified if those results can be correlated to the specified parameters through established methods.

No Changes
Info Only

SURVEILLANCE REQUIREMENTS (Continued)

g. Functional Test Failure Analysis

An engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested in an effort to determine the OPERABILITY of other snubbers irrespective of type which may be subject to the same failure mode.

For the snubbers found inoperable, an engineering evaluation shall be performed on the components to which the inoperable snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the inoperable snubbers are attached were adversely affected by the inoperability of the snubbers in order to ensure that the component remains capable of meeting the designed service.

If any snubber selected for functional testing either fails to activate 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 type subject to the same defect shall be evaluated in a manner to ensure their OPERABILITY. This testing requirement shall be independent of the requirements stated in Specification 4.7.8e. for snubbers not meeting the functional test acceptance criteria.

h. Functional Testing of Repaired and Replaced Snubbers

Snubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect the functional test result shall be tested to meet the functional test criteria before installation in the unit. Mechanical snubbers shall have met the acceptance criteria subsequent to their most recent service, and freedom-of-motion test must have been performed within 12 months before being installed in the unit.

i. Snubber Seal Replacement Program

The seal service life of hydraulic snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The expected service life for the various seals, seal materials, and applications shall be determined and established based on engineering information and the seals shall be replaced so that the expected service life will not be exceeded during a period when the snubber is required to be OPERABLE. The seal replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.

INSERT A

Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-2. The visual inspection interval for each category of snubber shall be determined based upon the criteria provided in Table 4.7-2 and tne first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment (*).

* NRC will include the License Amendment number that implements this change.

INSERT B

Table 4.7-2

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, the licensee 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 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.

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 that the number in Column A, the next inspection interval shall be the same as the previous interval.

INSERT B

Table 4.7-2 (Continued)

SNUBBER VISUAL INSPECTION 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 numbers 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.

INSERT C

"shall be classified as unacceptable and may be reclassified acceptable"

INSERT D

A hydraulic snubber found with the fluid port uncovered and all hydraulic snubbers found connected to an inoperable common reservoir, shall be classified as unacceptable and may be reclassified acceptable by functionally testing each snubber with the piston in the as-found setting, extending the piston rod in the tension direction.

ATTACHMENT 2

Duke Power Company
McGuire Nuclear Station, Units 1 and 2

Justification for Proposed Changes and
Evaluation of No Significant Hazards Consideration

JUSTIFICATION FOR PROPOSED CHANGE

The proposed amendment in this submittal includes changes to Section 4.7.8 of the McGuire Nuclear Station Technical Specifications, Snubbers, based on guidance provided by Generic Letter 90-09 dated December 11, 1990. Attachment I provides proposed revisions to McGuire Technical Specifications 4.7.8 b and 4.7.8 d. The proposed revisions would replace the current snubber visual inspection schedule with a new snubber visual inspection schedule, Table 4.7-2 of Attachment I.

The current schedule for visual inspections is based on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population. Since McGuire Nuclear Station has a large snubber population, this visual inspection schedule has proven to be excessively restrictive. Complying with the visual examination schedule has resulted in the spending of a significant amount of resources and subjecting plant personnel to unnecessary radiological exposure. This new schedule would maintain the same confidence level that the snubbers will operate within the specified acceptance levels and generally will allow visual inspections and corrective actions to be performed during plant outages.

This amendment, if implemented, would reduce future occupational radiation exposure and would be highly cost effective. Such action is consistent with the Commission's policy statement on Technical Specification improvements.

Upon approval of this amendment request, the current snubber visual inspection schedules will be recalculated by taking the number of inoperable snubbers found in the previous visual inspection and applying the criteria in Table 4.7-2. The start date for this newly calculated surveillance interval will remain the date of the last visual inspection.

With the addition of new Table 4.7-2, an administrative change to the TS Index is requested. Also, the current TS Index shows 2 Tables (3.7-4a & 3.7-4b) that were deleted in a previous TS amendment. These Tables should be deleted from the Index.

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

This proposed amendment would incorporate the guidance contained in the NRC's Generic Letter 90-09, dated December 11, 1990. The Generic Letter provided guidance for replacing the current snubber visual inspection schedule with an alternate snubber visual inspection schedule which maintains the same confidence level.

This proposed amendment has been developed based on the Generic Letter guidance.

10 CFR 50.92 states that a proposed amendment involves no significant hazards considerations if operation 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 amendment does not involve an increase in the probability or consequences of any previously evaluated accident. This amendment provides an alternate schedule for the visual inspection of snubbers which maintains the same confidence level in the snubbers ability to operate within a specified acceptance level. The accident analyses are therefore unaffected by this proposal.

The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated since the snubbers ability to operate within a specified acceptance level has not been changed.

The proposed amendment does not involve a significant reduction in a margin of safety. This amendment provides an alternate schedule for the visual inspection of snubbers which maintains the same confidence level in the snubbers ability to operate within a specified acceptance level. The margin of safety is therefore unaffected by this proposal.

For the above reasons, Duke Power concludes that this proposed amendment does not involve any Significant Hazards Consideration.

The proposed TS change has been reviewed against the criteria of 10 CFR 51.22(c)(9) for environmental considerations. The proposed change does not involve any significant hazards consideration, nor increase the types or amounts of effluents that may be released offsite, nor increase the individual or cumulative occupational radiation exposure. Based on this, the proposed Technical Specification change meets the criteria given in 10 CFR 51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.