Attachment I

Proposed Technical Specification Changes

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 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.

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 resto 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 in lieu of 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 page)

Snubbers are categorized as inaccessible or accessible during reactor operation. ~~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 hydraulic and mechanical 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:~~

INSERT "B" (see attached page)

~~No. of Inoperable Snubbers of Each Type Found During Inspection~~	~~Subsequent Visual 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 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.~~

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 the 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 number of the license amendment 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 (cont'd)

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.

SURVEILLANCE REQUIREMENTS (Continued)

and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) the snubber has ~~there are~~ no visible indications of damage or impaired OPERABILITY ~~, and~~ (2) attachments to the foundation or supporting structure are functional. 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)~~ i. the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers ~~(regardless of type)~~ that may be generically susceptible; and ~~(2)~~ ii. 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 may be determined OPERABLE via functional testing only if 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.~~

INSERT "C" (see attached page)

Shall be classified as unacceptable and may be reclassified acceptable

d. 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 the 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; or (2) evaluation of in-place snubber piston setting; or (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 independent of the requirements of this specification.

e. Functional Tests

During the first refueling shutdown and at least once per 18 months thereafter during shutdown, a representative sample of snubbers of each type shall be tested using one of the following sample plans. The large-bore steam generator hydraulic snubbers shall be treated as

INSERT C

All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable and may be reclassified as acceptable for determining the next inspection interval provided that criterion (i) and (ii) above are met. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

SURVEILLANCE REQUIREMENTS (Continued)

e. Functional Tests (Continued)

a separate type (population) for functional test purposes. A 10% random sample shall be tested at least once per 18 months during refueling with continued testing based on a failure evaluation. The sample plan shall be selected prior to the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan selected for each snubber type prior to the test period or the sample plan used in the prior test period shall be implemented:

1) At least 10% of all snubbers shall be functionally tested either in-place or in a bench test. For each snubber of a type that does not meet the functional test acceptance criteria of Specification 4.7.8f., an additional 10% of all 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 all snubbers shall be functionally tested in accordance with Figure 4.7-1. "C" is the total number of snubbers of a type found not meeting the acceptance requirements of Specification 4.7.8f. The cumulative number of snubbers tested is denoted by "N". At the end of each day's testing, the new values of "N" and "C" (previous day's total plus current day's increments) shall be plotted on Figure 4.7-1. If at any time the point plotted falls in the "Accept" region, testing of snubbers of that type may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers of that type shall be tested until the point falls in the "Accept" region or all the snubbers of that type have been tested; or

3) An initial representative sample of 55 snubbers shall be functionally tested. For each snubber type 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. The results from this sample plan shall be plotted using an "Accept" line which follows the equation $N = 55(1 + C/2)$. Each snubber point should be plotted as soon as the snubber is tested. If the point plotted falls on or below the "Accept" line, testing may be terminated. If the point plotted falls above the "Accept" line, testing must continue until the point falls in the "Accept" region or all the snubbers of that type have been tested.

SURVEILLANCE REQUIREMENTS (Continued)

e. Functional Tests (Continued)

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 provided all snubbers tested with the failed equipment during the day of equipment failure are retested. The representative sample selected for the functional test sample plans shall be randomly selected from all snubbers and reviewed before beginning the testing. The review shall ensure, as far as practicable, that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers. Snubbers placed in the same location 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 test 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) For mechanical snubbers, the force required to initiate or maintain motion of the snubber is within the specified range in both directions 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.

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.

SURVEILLANCE REQUIREMENTS (Continued)

g. Functional Test Failure Analysis (Continued)

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 lock up 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 functionally tested. 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 results 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 the freedom-of-motion test must have been performed within 12 months before being installed in the unit.

i. Snubber Service Life Program

The service performance of all snubbers shall be monitored. If a service life limit is associated (established) with any snubber (or critical part), based on manufacturer's information, qualification tests, or historical service results, then the service life shall be monitored to ensure that the service life is not exceeded between surveillance inspections. Established snubber service life shall be extended or shortened based on monitored test results and failure history. The replacements (snubbers or critical parts) shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.

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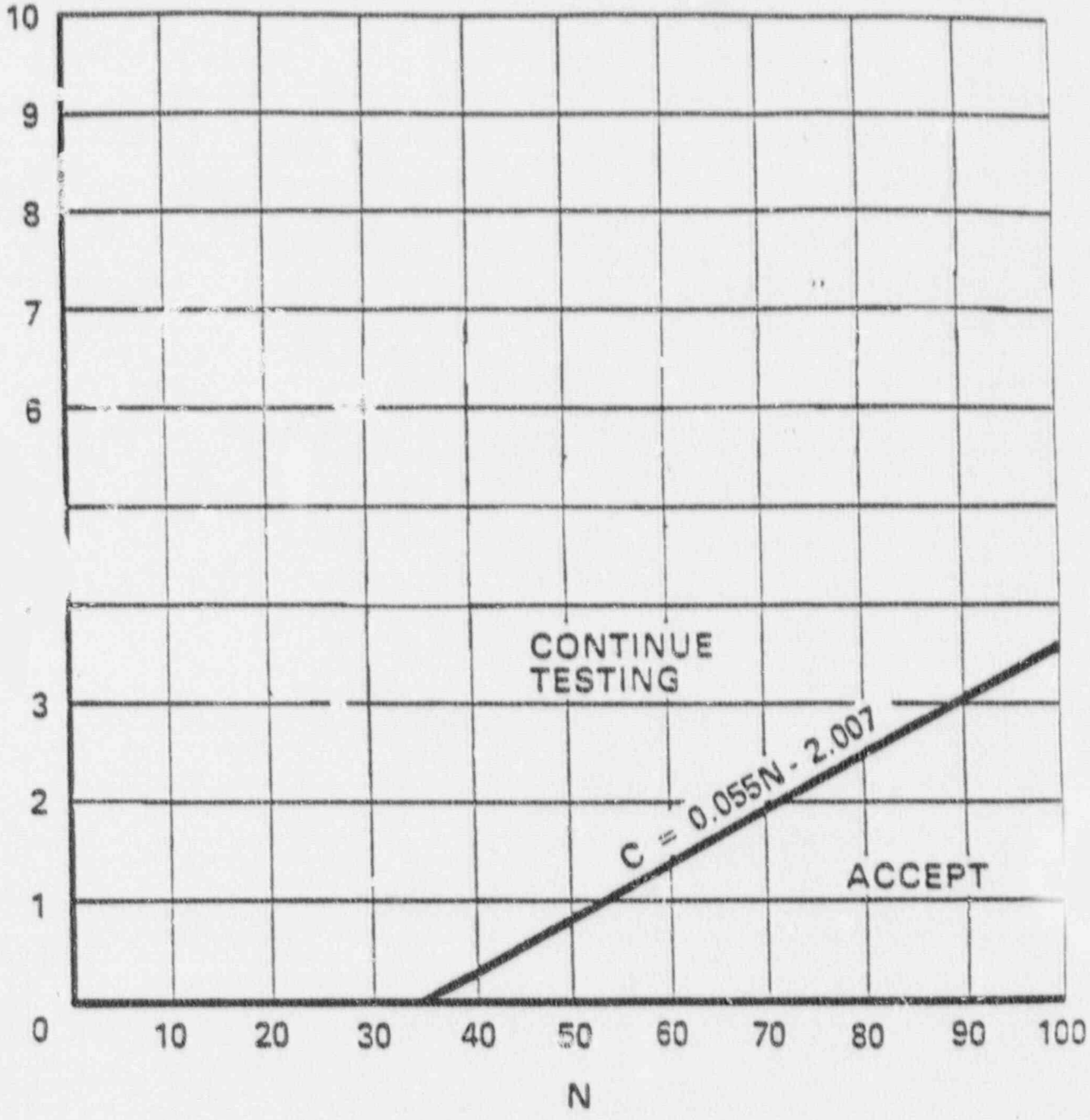

FIGURE 4.7-1
SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST

ATTACHMENT 2

Duke Power Company
Catawba 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 Catawba Nuclear Station Technical Specifications, Snubbers, based on guidance provided by Generic Letter 90-09 dated December 11, 1990. Revisions to the wording of the Generic Letter 90-09 proposed Technical Specifications were made to maintain consistency with the current Catawba Technical Specification definition of snubber categorization and disposition of visual failures. These revisions were discussed with the NRC Staff prior to this submittal. Attachment I provides proposed revisions to Catawba Technical Specifications 4.7.8 b and 4.7.8 c. 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, and revise the visual inspection acceptance criteria to mirror the visual inspection acceptance criteria contained in the Generic Letter.

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 Catawba 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 of Attachment I. The results would be as follows:

	UNIT 1		UNIT 2	
	Accessible	Inaccessible	Accessible	Inaccessible
Number of Inoperable Snubbers From Last Inspection:	0	0	1	0
Date of Last Inspection:	2/20/90	3/12/90	4/17/90	8/22/90
Current Inspection Interval:	18 month	18 month	12 month	18 month
Next Surveillance Date: (25% extension)	8/20/91	9/12/91	4/17/91 (7/17/91)	2/22/92
New Inspection Interval:	36 month	36 month	24 month	36 month
New Surveillance Date:	2/20/93	3/12/93	4/17/92	8/22/93

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.

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 co. ndence level in the number of snubbers available 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.