

## ATTACHMENT B

### Summary of Revised Pages

Proposed changes to Appendix A, Technical Specifications of Facility Operating License NPF-72 and NPF-77, Byron Station.

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Added pages: 3/4 7-27a  
3/4 7-27b

Proposed changes to Appendix A, Technical Specifications of Facility Operating License NPF-72 and NPF-77, Braidwood Station.

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# LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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### 3/4.7.8 SNUBBERS

#### LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers shall be OPERABLE. Snubbers excluded from this requirement 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 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

Snubbers are categorized as <sup>Categories</sup> 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 hydraulic and mechanical snubbers. If all snubbers of each type are found OPERABLE during the first inservice visual inspection, the second inservice visual inspection of that type shall be performed at the first refueling outage. Otherwise, subsequent visual inspections of a given type shall be performed in accordance with the following schedule.\*

INSERT A

~~\*The visual inspection of the inaccessible snubbers for Unit 1, Cycle 3 must be completed by January 24, 1990.~~

INSERT A

determined by Table 4.7-2. The visual inspection interval for each category 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 prior to amendment (\*).

\* NRC will include the number of the license amendment that implements this change.

# PLANT SYSTEMS

## SURVEILLANCE REQUIREMENTS (Continued)

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

### c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage 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) 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; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8f. All snubbers <sup>found</sup> connected to an inoperable common hydraulic fluid reservoir shall be counted as ~~inoperable snubbers~~ <sup>unacceptable</sup>.

### 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 and a visual inspection of the systems within 6 months following such an event. 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 of 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 B

shall be classified as unacceptable and may be reclassified acceptable

INSERT C

for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an inoperable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

#### 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 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 the total of each type of snubber 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 that type of snubber shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested, or
- 2) A representative sample of each type of snubber 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 of a type 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 "Reject" region, all snubbers of that type shall be functionally tested. 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 the "Reject" 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

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

~~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 of that type of snubber 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.~~

Testing equipment failure during functional testing may invalidate that day's testing and allow the 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 the snubbers of each type 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 of each type. 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;
- 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.



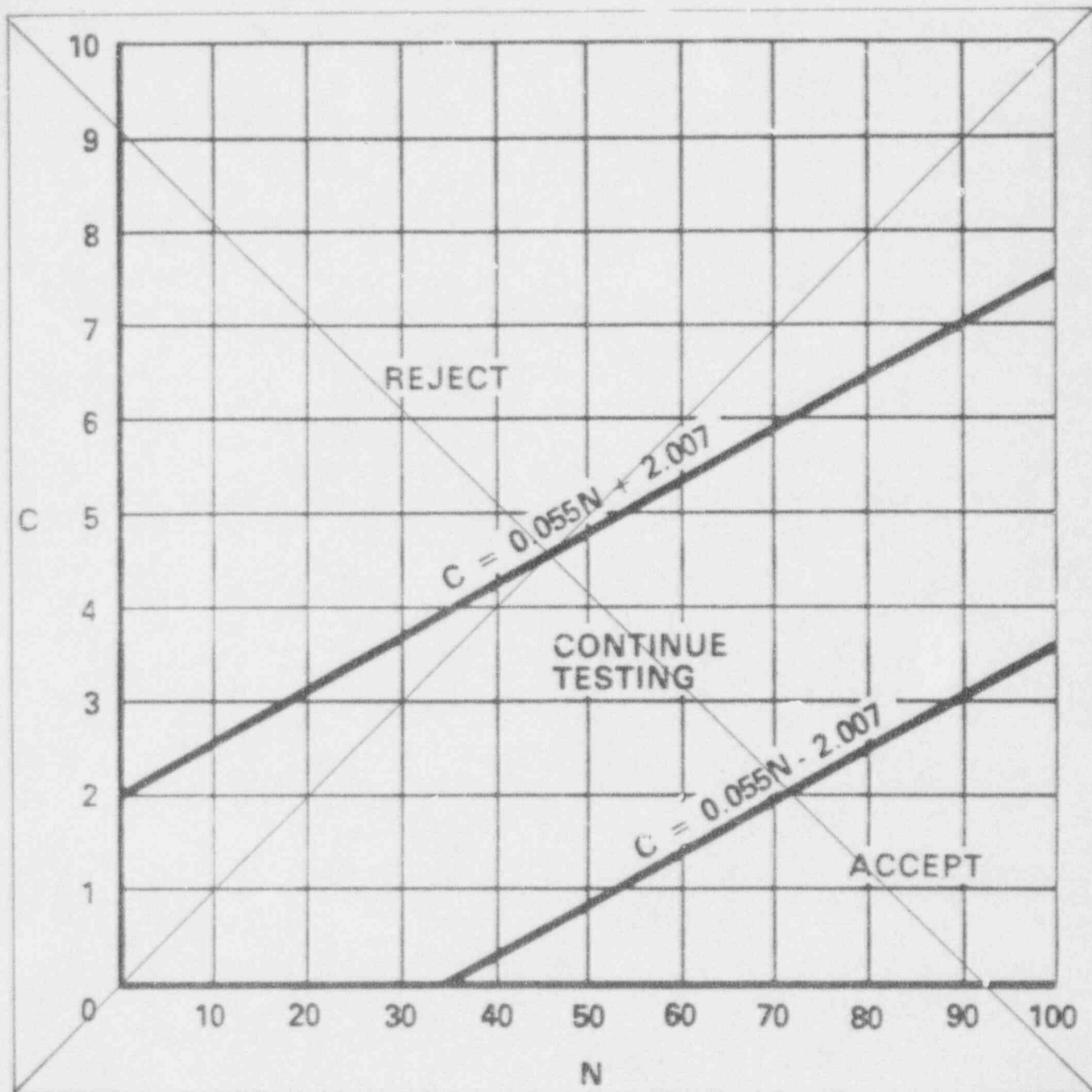


FIGURE 4.7-1  
 (THIS FIGURE NOT USED)  
 SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST

TABLE 4.7-2  
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1&2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3&6)	Column B Repeat Interval (Notes 4&6)	Column C Reduce Interval (Notes 5&6)
1-79	0	0	1
80-99	0	0	2
100-149	0	1	4
150-199	0	3	8
200-299	2	5	13
300-399	5	12	25
400-499	8	18	36
500-599	12	24	48
750-999	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 shall 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.

TABLE 4.7-2 (Continued)

NOTATIONS (Continued)

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. The previous interval shall be reduced by a factor of one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column C 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.

BYRON - UNITS 1 & 2

*New page*  
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AMENDMENT NO.

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BASES

USNRC Generic Letter 90-09 "Alternative Requirements for Snubber Visual Inspections Intervals and Corrective Actions" provide information necessary to establish a method of extending or shortening the subsequent visual inspection frequency based upon the failure rates from the previous inspection.

SNUBBERS (Continued)

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 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 require 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. For example, if 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.

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

1. ~~Functionally test 10% of each type of snubber with an additional 10% tested for each functional testing failure, or~~ <sup>at least</sup> <sup>each</sup> <sup>shall be functionally tested at least once per 18 months</sup>
2. ~~Functionally test a sample size and determine sample acceptance or rejection using Figure 4.7-1, or~~
3. ~~Functionally test a representative sample size and determine sample acceptance or rejection using the stated equation.~~

~~Figure 4.7-1 was developed using "Wald's Sequential Probability Ratio Plan" as described in "Quality Control and Industrial Statistics" by Acheson J. Duncan.~~

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubber for the applicable design conditions at either the completion of their fabrication or at a subsequent date. Snubbers so exempted shall be listed in the list of individual snubbers indicating the extent of the exemptions.

The service life of a snubber is established via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubbers, 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.



## LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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##### 3/4.7.7 NON-ACCESSIBLE AREA EXHAUST FILTER PLENUM VENTILATION SYSTEM..... 3/4 7-17

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### 3/4.7.8 SNUBBERS

#### LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers shall be OPERABLE. Snubbers excluded from this requirement 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 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

Snubbers are categorized as <sup>categories</sup> 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 hydraulic and mechanical snubbers. If all snubbers of each type are found OPERABLE during the first inservice visual inspection, the second inservice visual inspection of that type shall be performed at the first refueling outage. Otherwise, subsequent visual inspections of a given type shall be performed in accordance with the following schedule:~~

INSERT A →

INSERT A on page 3/4 7-20

determined by Table 4.7-2. The visual inspection interval for each type 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.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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

#### c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage 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) 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; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8f. All snubbers connected to an inoperable common hydraulic fluid reservoir shall ~~be counted as inoperable snubbers~~ found

INSERT B

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#### 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 and a visual inspection of the systems within 6 months following such an event. 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 of 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 B on page 3/4 7-21

shall be classified as unacceptable and may be reclassified acceptable

INSERT C on page 3/4 7-21

unacceptable for determining the next inspection interval. 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.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

#### e. Functional Tests

A

~~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 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) ~~a. At least 10% of the total of each type of snubber 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 that type of snubber shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested; or~~
- 2) ~~A representative sample of each type of snubber 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 of a type 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 "Reject" region, all snubbers of that type shall be functionally tested. 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 the "Reject" 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~~



## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

~~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 of that type of snubber 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.~~

Testing equipment failure during functional testing may invalidate that day's testing and allow the 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 the snubbers of each type 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 of each type. 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;
- 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.

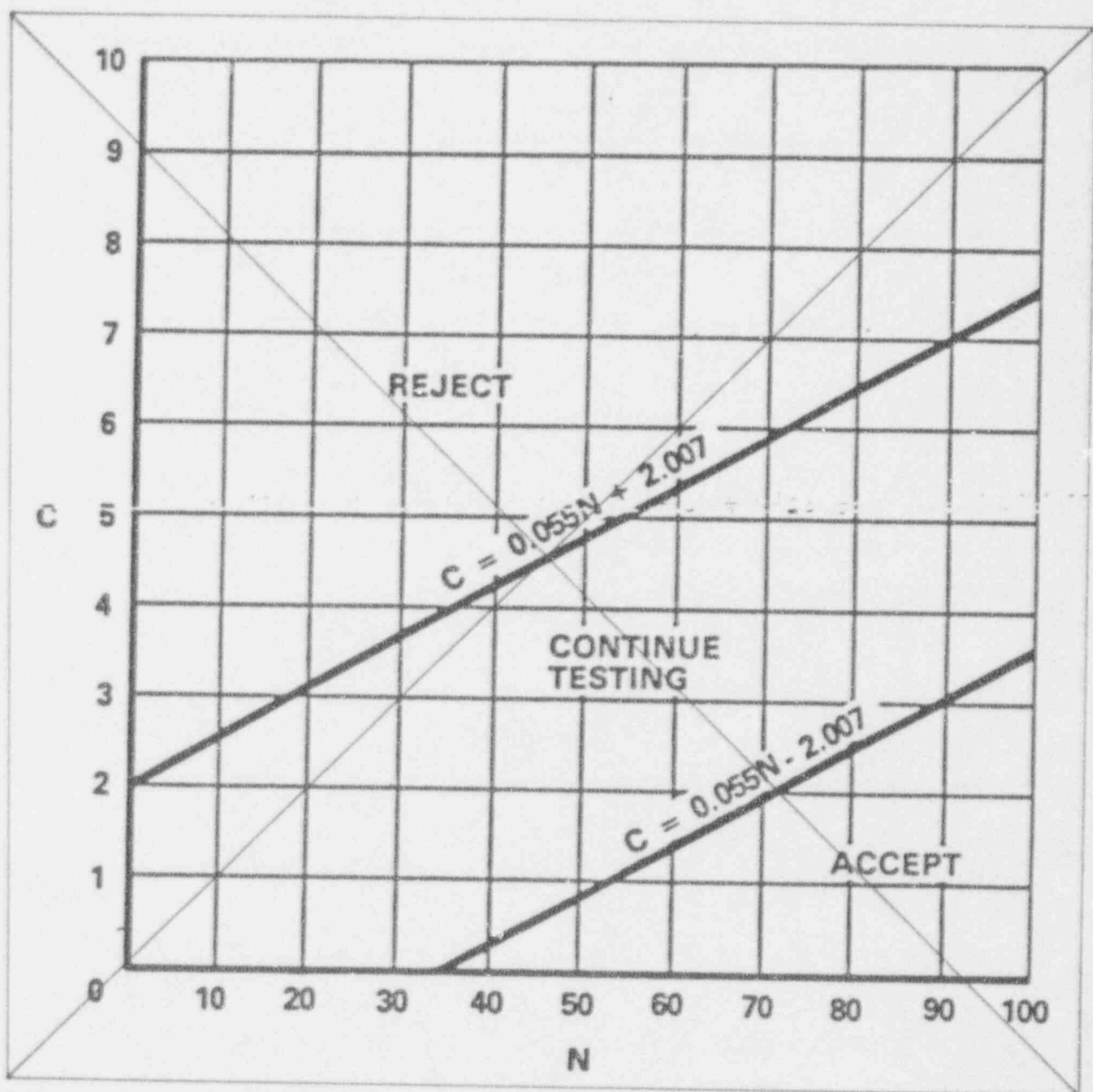


FIGURE 4.7-1

~~SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST~~  
 (THIS FIGURE NOT USED)

TABLE 4.7-2  
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1&2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3&6)	Column B Repeat Interval (Notes 4&6)	Column C Reduce Interval (Notes 5&6)
1-79	0	0	1
80-99	0	0	2
100-149	0	1	4
150-199	0	3	8
200-299	2	5	13
300-399	5	12	25
400-499	8	18	36
500-599	12	24	48
750-999	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 shall 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.

New page

TABLE 4.7-2 (Continued)

NOTATIONS (Continued)

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.

## BASES

SNUBBERS (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection during an earthquake or severe transient. Therefore, the required inspection interval varies inversely with the observed snubber failures on a given type and is determined by the number of inoperable snubbers found during an inspection of each type. 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 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 require a shorter inspection interval will override the previous schedule.~~

INSERT D →

The acceptance criteria are to be used in the visual inspection to determine OPERABILITY of the snubbers. For example, if a fluid port or a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable and shall not be determined OPERABLE via functional testing.

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

1. ~~Functionally test 10% of a type of snubber with an additional 10% tested for each functional testing failure, or~~ <sup>at least each</sup> *shall be functionally tested at least once per 18 months*
2. ~~Functionally test a sample size and determine sample acceptance or rejection using Figure 4.7-1, or~~
3. ~~Functionally test a representative sample size and determine sample acceptance or rejection using the stated equation.~~

~~Figure 4.7-1 was developed using "Wald's Sequential Probability Ratio Plan" as described in "Quality Control and Industrial Statistics" by Acheson J. Duncan.~~

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubber for the applicable design conditions at either the completion of their fabrication or at a subsequent date. Snubbers so exempted shall be listed in the list of individual snubbers indicating the extent of the exemptions.

The service life of a snubber is established via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubbers, seal replaced, spring replaced, in high radiation area, in high temperature area,



INSERT D on page B 3/4 7-5

USNRC Generic Letter 90-09, "Alternate Requirements for Snubber Visual Inspection Intervals and Corrective Actions" provides information necessary to establish a method of extending or shortening the subsequent visual inspection frequency based upon the failure rates from the previous inspection.

## ATTACHMENT C

### Summary of the No Significant Hazards Considerations

Commonwealth Edison has evaluated this proposed amendment and determined that it involves no significant hazards considerations. According to 10 CFR 50.92 (c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility is in accordance with the proposed amendment and would not:

1. Involve a significant increase in the probability or consequence 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 basis for this determination of no significant hazards consideration is presented below.

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

The amended surveillance requirement adds a table that addresses the maximum number of snubber failures that can be tolerated prior to reducing the inspection interval. This number is a function of the population size of a particular type of snubber. The revised requirement will allow the inspection intervals to be compatible with the 24 month fuel cycles, and provisions are included to extend the inspection interval up to 48 months. A provision is included to allow an evaluation to determine operability to justify continued operation with a snubber that is unacceptable.

The purpose of the amendment request is to provide for alternative inspection intervals that take the size of the population of a snubber type into account. The proposed change provides the same confidence level and allows snubber inspection and corrective action to be performed during refueling outages. This allows the plant to avoid a mid-cycle outage due to a small number of snubber failures.

The proposed change allows for a small percentage of snubbers in each category to fail the required visual examination without adjusting the inspection frequency. If a statistically significant percentage of snubbers fail, the visual examination inspection interval is reduced based on the percentage of failed snubbers.

The proposed change has no direct or indirect impact on reactivity management activities.

The change is not expected to have an impact on equipment failures. Any snubbers that fail, to meet the visual examination acceptance criteria are either functionally tested to the as-found condition to verify continued acceptability, or an evaluation is performed to demonstrate the acceptability of continued operation with an unacceptable snubber. No new equipment is being introduced and no systems are operated in a configuration that has not been evaluated, so no new failure modes are introduced.

The affected transients are the design basis earthquake and the spectrum of event initiating transients, with the capability of imposing significant dynamic loads or otherwise which impact the structural integrity of the Reactor Coolant System (RCS).

The snubbers are installed to ensure the structural integrity of the RCS and required support systems. Their failure is passive in nature. The probability of a transient initiating event occurring is unrelated to the existence or condition of equipment that is designed to perform a mitigating function. The snubbers are installed to ensure an acceptable system response to a dynamic load, and their availability does not impact the frequency of occurrence of earthquakes or other transient resulting in significant dynamic loading.

The revised testing provisions are designed to allow some flexibility while still maintaining a high probability that the installed snubbers will be capable of performing their intended function when required. The revised surveillances appropriately consider the size of the population of a particular type of snubber, and are sufficient to ensure the consequences of an accident will be unchanged when the revised requirements are implemented. By maintaining a statistically high level of confidence in the function of the plant's snubbers, the system response to transient initiating events will be as designed and thus, the off-site dose projected to occur of any affected transient will remain acceptably low.

As previously stated, the revised surveillance provides a high confidence that the affected systems will remain intact and functional. Evaluation of the effects of operating with a degraded snubber is required to ensure that adequate margin exists to support continued plant operation. If this evaluation cannot adequately justify continued operation, the appropriate action statement will be applied. These provisions are sufficient to assure that the probability of an equipment malfunction will not increase.

The consequences of equipment malfunction will not increase. Sufficient redundancy exists to accommodate the complete failure of one train of required equipment. The requisite electrical and physical separation are sufficient to ensure that the redundant train remains unaffected. This redundancy is adequate to ensure that the undetected failure of a snubber will not have a severe impact on overall system response to a transient.

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

The possibility of a new or different type of accident is not created by this change. No new or different equipment is being introduced, and no system will be operated in a different configuration without first having the effects of the new configuration evaluated. The new configuration would be system and/or plant operation with a snubber installed that has failed its visual examination. The required evaluation must be sufficient to provide confidence that continued operation is acceptable; otherwise, the provisions of the action statement will be observed.

3. The proposed changes do not involve a significant reduction in the margin of safety.

No reduction in the margin of safety will occur as a result of this proposed change. As previously described, the controls in place will provide a high confidence the affected systems will continue to be functional. No significant increase in the rate of occurrence of undetected inoperable snubbers is expected to occur, and the allowable failures prior to applying an increased test frequency is still a small percentage of the total snubber population.

Therefore, based on the above evaluation, Commonwealth Edison has concluded that these changes do not involve a significant hazards consideration.

## **ATTACHMENT D**

### **Environmental Assessment Statement**

Commonwealth Edison has evaluated the proposed amendment against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. It has been determined that the proposed change meets the criteria for a categorical exclusion as provided for under 10 CFR 51.22 (c) (9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50. The amendment changes an inspection or surveillance requirement, and the change involves no significant hazards considerations. There is no change in the amount or type of releases made off-site, and there is no significant increase in individual or cumulative occupational radiation exposure.