

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3
PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

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ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 1
PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

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LIST OF TABLES (Cont'd)

SEP 22 1993

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation	3.2/4.2-53
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	3.2/4.2-54
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation.	3.2/4.2-56
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	3.2/4.2-57
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	3.2/4.2-58
4.2.K	Explosive Gas Instrumentation Surveillance	3.2/4.2-62
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance	3.2/4.2-63a
3.5-1	Minimum RHRSW and EEGW Pump Assignment	3.5/4.5-11
4.9.A	Auxiliary Electrical Systems	3.9/4.9-16
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start . . .	3.9/4.9-18
6.2.A	Minimum Shift Crew Requirements.	6.0-4

4.6.H-1 SNUBBER VISUAL INSPECTION INTERVAL 3.6/4.6-23b

JAN 19 1989

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6.H. Snubbers.

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1.

PLANT All safety-related snubbers are listed in Surveillance Instructions, ~~BF SI 4.6.H.1~~ and ~~BF SI 4.6.H.2~~.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in PLANT. Surveillance Instructions.

~~BF SI 4.6.H.1 and BF SI 4.6.H.2.~~

1. ~~Inspection Groups~~

~~The snubbers may be categorized into two major groups based on whether the snubbers are accessible or inaccessible during REACTOR POWER OPERATION. These major groups may be further subdivided into groups based on design, environment, or other features which may be expected to affect the operability of the snubbers within the group. Each group may be inspected independently in accordance with 4.6.H.2 through 4.6.H.9.~~

2. ~~Visual Inspection, Schedule, and Lot Size~~

~~The first inservice visual inspection of snubbers not previously included in these technical specifications and whose visual inspection has~~

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4.6.H. Snubbers

4.6.H.2. (Cont'd)

~~not been performed and documented previously, shall be performed within six months for accessible snubbers and before resuming power after the first refueling outage for inaccessible snubbers subsequent to being included in these specifications. The results of these inspections shall be used in the schedule table below to determine the subsequent visual inspection period. Snubbers previously included in these technical specifications shall continue on their previously earned inspection schedule without affect from adding snubbers not within their group.~~

No. Inoperable Snubbers per Inspection Period	*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 shall not be lengthened more than one step at a time.~~

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TABLE AND
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4.6.H. Snubbers

3. ~~Visual Inspection
Performance and
Evaluation~~

~~Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) bolts attaching the snubber to the foundation or supporting structure are secure, and (3) snubbers attached to sections of safety related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY.~~

~~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 that may be generically susceptible; and (2) the affected snubber is functionally tested, if applicable, in the as found condition and determined OPERABLE per Specification 4.6.H.5.~~

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4.6.H.1 Inspection Types

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

4.6.H.2 Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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.

4.6.H.3 Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the



4.6.H.3 (continued)

result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.

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4.6.H. Snubbers

4.6.H.3 (Cont'd)

~~Also, snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other such random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.~~

4. FUNCTIONAL TEST Schedule, Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of each ~~group~~ of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

TYPE

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within ~~the groups~~. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

TYPES

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.



4.6.H. Snubbers

4.6.H.5 (Cont'd)

- e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that ~~group~~ of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original ~~inspection group~~ have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.

TYPE

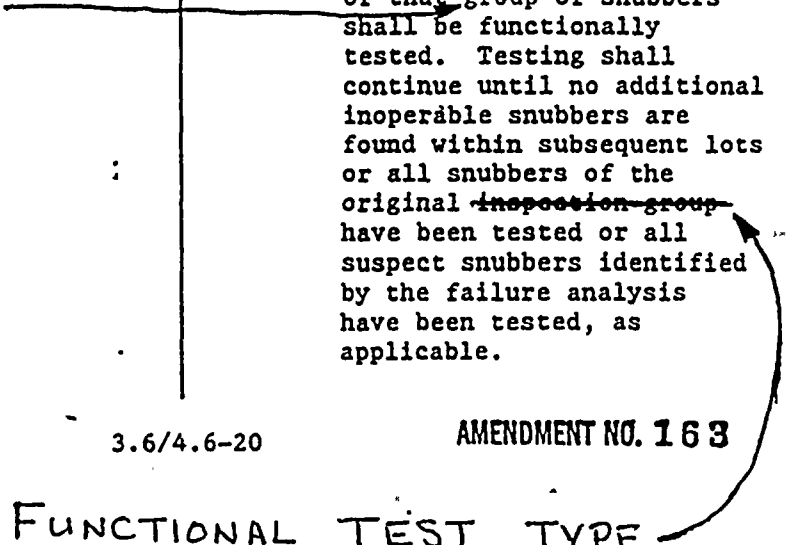




TABLE 4.6.H-1

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 more	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 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 numbers in Columns B and C.

Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.



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3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same defect shall be functionally tested. A thorough inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified. VISUAL

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.



3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. ~~Thus, the required inspection interval varies inversely with the observed snubber failures.~~ The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be ~~exempted from being counted as inoperable.~~ Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration. Inspection ~~groups~~ ^{RECLASSIFIED} may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection ~~groups~~ ^{TYPES} is inspected and tested separately unless an engineering analysis indicates the inspection ~~group~~ is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection ~~groupings~~.

TYPE

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 2
PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

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<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation.	3.2/4.2-53
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4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation.	3.2/4.2-57
4.2.J	Seismic Monitoring Instrument Surveillance Requirements.	3.2/4.2-58
4.2.K	Explosive Gas Instrumentation Surveillance.	3.2/4.2-62
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance	3.2/4.2-63a
3.5-1	Minimum RHRSW and EECW Pump Assignment.	3.5/4.5-11
4.9.A	Diesel Generator Reliability.	3.9/4.9-16
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start.	3.9/4.9-18
6.2.A	Minimum Shift Crew Requirements	6.0-4

4.6.H-1 SNUBBER VISUAL INSPECTION INTERVAL 3.6/4.6-23b

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6.H. Snubbers

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1.

PLANT

All safety-related snubbers are listed in Surveillance Instructions, ~~BF SI 4.6.H.1~~ and ~~BF SI 4.6.H.2~~.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in PLANT Surveillance Instructions.

~~BF SI 4.6.H.1 and BF SI 4.6.H.2~~

1. ~~Inspection Groups~~

~~The snubbers may be categorized into two major groups based on whether the snubbers are accessible or inaccessible during REACTOR POWER OPERATION. These major groups may be further subdivided into groups based on design, environment, or other features which may be expected to affect the operability of the snubbers within the group. Each group may be inspected independently in accordance with 4.6.H.2 through 4.6.H.4~~

2. ~~Visual Inspection, Schedule, and Lot Size~~

~~The first inservice visual inspection of snubbers not previously included in these technical specifications and whose visual inspection has~~

SEE ATTACHED SHEETS FOR REVISED PARAGRAPH

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

4.6.H.2 (Cont'd)

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~~not been performed and documented previously, shall be performed within six months for accessible snubbers and before resuming power after the first refueling outage for inaccessible snubbers subsequent to being included in these specifications. The results of these inspections shall be used in the schedule table below to determine the subsequent visual inspection period. Snubbers previously included in these technical specifications shall continue on their previously earned inspection schedule without affect from adding snubbers not within their group.~~

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TABLE AND
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~~No. Inoperable *Subsequent
Snubbers per Visual
Inspection Inspection
Period 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 shall not be lengthened more than one step at a time.~~

4.6.H. Snubbers

3. ~~Visual Inspection
Performance and
Evaluation~~

~~Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) bolts attaching the snubber to the foundation or supporting structure are secure, and (3) snubbers attached to sections of safety related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY.~~

~~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 that may be generically susceptible; and (2) the affected snubber is functionally tested, if applicable, in the as found condition and determined OPERABLE per Specification 4.6.H.5.~~

SEE ATTACHED
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4.6.H.1 Inspection Types

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

4.6.H.2 Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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.

4.6.H.3 Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the



4.6.H.3 (continued)

result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.



LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

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4.6.H Snubbers

4.6.H.3 (Cont'd)

~~Also, snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other such random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.~~

4. FUNCTIONAL TEST Schedule, TYPE Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of each ~~group~~ of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within the ~~groups~~. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

TYPES

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.



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LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

4.6.H.5 (Cont'd)

- e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that group of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original ~~inspection group~~ have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.

TYPE

FUNCTIONAL TEST TYPE

TABLE 4.6.H-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 more	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 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 numbers in Columns B and C.

Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.



3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same VISUAL defect shall be functionally tested. A thorough inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified.

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.

3.6/4.6 BASES

3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. ~~Thus, the required inspection interval varies inversely with the observed snubber failures.~~ The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be ~~exempted from being counted as inoperable.~~ Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration. Inspection ~~groups~~ ^{RECLASSIFIED} may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection ~~groups~~ ^{TYPES} is inspected and tested separately unless an engineering analysis indicates the inspection ~~group~~ is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection ~~groupings~~.

TYPE

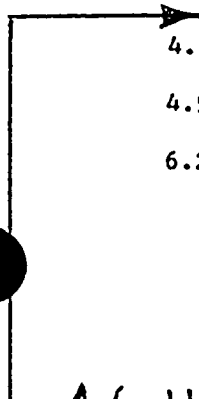
ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

MARKED PAGES

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation.	3.2/4.2-52
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	3.2/4.2-53
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation.	3.2/4.2-55
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	3.2/4.2-56
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	3.2/4.2-57
4.2.K	Explosive Gas Instrumentation Surveillance	3.2/4.2-61
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance.	3.2/4.2-62a
3.5-1	Minimum RHRSW and EECW Pump Assignment.	3.5/4.5-11
4.9.A	Auxiliary Electrical System	3.9/4.9-15
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start.	3.9/4.9-17
6.2.A	Minimum Shift Crew Requirements	6.0-4



4.6.H-1 SNUBBER VISUAL INSPECTION INTERVAL 3.6/4.6-23b



LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6.H. Snubbers

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1.

PLANT

All safety-related snubbers are listed in Surveillance Instructions, ~~BF-SI 4.6.H-1~~ and ~~BF-SI 4.6.H-2~~.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in PLANT Surveillance Instructions.

~~BF-SI 4.6.H-1 and BF-SI 4.6.H-2.~~

1. ~~Inspection Groups~~

~~The snubbers may be categorized into two major groups based on whether the snubbers are accessible or inaccessible during REACTOR POWER OPERATION. These major groups may be further subdivided into groups based on design, environment, or other features which may be expected to affect the operability of the snubbers within the group. Each group may be inspected independently in accordance with 4.6.H.2 through 4.6.H.9.~~

2. ~~Visual Inspection Schedule and Lot Size~~

~~The first inservice visual inspection of snubbers not previously included in these technical specifications and whose visual inspection has~~

SEE
ATTACHED
SHEETS
FOR REVISED
PARAGRAPHS



LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

4.6.H.2 (Cont'd)

SEE ATTACHED SHEETS FOR REVISED PARAGRAPH

~~not been performed and documented previously, shall be performed within six months for accessible snubbers and before resuming power after the first refueling outage for inaccessible snubbers subsequent to being included in these specifications. The results of these inspections shall be used in the schedule table below to determine the subsequent visual inspection period. Snubbers previously included in these technical specifications shall continue on their previously earned inspection schedule without affect from adding snubber. not within their group.~~

ADD NEW PAGE FOR NEW TABLE AND NOTES, SEE ATTACHED SHEET.

No. Inoperable Snubbers per Inspection Period	*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 shall not be lengthened more than one step at a time.~~

4.6.H. Snubbers3. ~~Visual Inspection
Performance and
Evaluation~~

~~Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) bolts attaching the snubber to the foundation or supporting structure are secure, and (3) snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY.~~

~~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 that may be generically susceptible, and (2) the affected snubber is functionally tested, if applicable, in the as found condition and determined OPERABLE per Specification 4.6.H.5.~~

SEE ATTACHED
SHEETS FOR
REVISED
PARAGRAPH



4.6.H.1 Inspection Types

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

4.6.H.2 Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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.

4.6.H.3 Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the



4.6.H.3 (continued)

result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.



JAN 19 1989

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

SEE ATTACHED
SHEETS FOR
REVISED
PARAGRAPH

4.6.H Snubbers

4.6.H.3 (Cont'd)

~~Also, snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other such random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.~~

4. FUNCTIONAL TEST Schedule, Lot Size, and Composition TYPE

During each refueling outage, a representative sample of 10% of the total of each group of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within the groups. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

TYPES →

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

4.6.H.5 (Cont'd)

- e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure.

The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that group of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original inspection group have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.

TYPE

BFN
Unit 3

3.6/4.6-20

AMENDMENT NO. 134

FUNCTIONAL TEST TYPE

TABLE 4.6.H-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 more	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 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 numbers in Columns B and C.

Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.

JAN 19 1989

3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads, as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same **VISUAL** defect shall be functionally tested. A thorough inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified.

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.

3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. ~~Thus, the required inspection interval varies inversely with the observed snubber failures.~~ The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

RECLASSIFIED

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be ~~exempted from being counted as~~ ~~inoperable~~. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

~~Inspection groups~~ may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection ~~groups~~ is inspected and tested separately unless an engineering analysis indicates the inspection ~~group~~ is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection ~~groupings~~.

TYPE

TYPES



ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3
PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

REVISED PAGES

I. AFFECTED PAGE LIST

vii
3.6/4.6-15
3.6/4.6-16
3.6/4.6-17
3.6/4.6-18
3.6/4.6-20
3.6/4.6-23b
3.6/4.6-23c
3.6/4.6-34
3.6/4.6-35

(Revised pages are the same for Units 1, 2, and 3)

II. REVISED PAGES (SEE ATTACHED)

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 1

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

REVISED PAGES



LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation	3.2/4.2-53
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	3.2/4.2-54
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation.	3.2/4.2-56
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	3.2/4.2-57
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	3.2/4.2-58
4.2.K	Explosive Gas Instrumentation Surveillance	3.2/4.2-62
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance	3.2/4.2-63a
3.5-1	Minimum RHRSW and EECW Pump Assignment	3.5/4.5-11
4.6.H-1	Snubber Visual Inspection Interval	3.6/4.6-23b
4.9.A	Auxiliary Electrical Systems	3.9/4.9-16
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start . . .	3.9/4.9-18
6.2.A	Minimum Shift Crew Requirements.	6.0-4

3.6/4.6 PRIMARY SYSTEM BOUNDARY

LIMITING CONDITIONS FOR OPERATION

3.6.H. Snubbers

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1. All safety-related snubbers are listed in Plant Surveillance Instructions.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in Plant Surveillance Instructions.

1. Inspection Types

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

2. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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 _____.

4.6.H. Snubbers3. Visual Inspection
Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

4.6.H Snubbers

4.6.H.3 (Cont'd)

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.

4.6.H. Snubbers

4. FUNCTIONAL TEST Schedule, Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of each type of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within the types. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.



4.6.H. Snubbers

4.6.H.5 (Cont'd)

- e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that type of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original FUNCTIONAL TEST type have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.

Table 4.6.H-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 more	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.



Table 4.6.H-1 (Continued)

SNUBBER VISUAL INSPECTION INTERVAL

- 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 numbers in Columns B and C.
- Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.



3.6/4.6 BASES

3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same defect shall be functionally tested. A thorough visual inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified.

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.



3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be reclassified as operable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration. Inspection types may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection types is inspected and tested separately unless an engineering analysis indicates the inspection type is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection type.

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)

UNIT 2

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

REVISED PAGES



LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation.	3.2/4.2-53
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation.	3.2/4.2-54
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation	3.2/4.2-56
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation.	3.2/4.2-57
4.2.J	Seismic Monitoring Instrument Surveillance Requirements.	3.2/4.2-58
4.2.K	Explosive Gas Instrumentation Surveillance.	3.2/4.2-62
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance	3.2/4.2-63a
3.5-1	Minimum RHRSW and EECW Pump Assignment.	3.5/4.5-11
4.6.H-1	Snubber Visual Inspection Interval.	3.6/4.6-23b
4.9.A	Diesel Generator Reliability.	3.9/4.9-16
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start. . .	3.9/4.9-18
6.2.A	Minimum Shift Crew Requirements	6.0-4

3.6/4.6 PRIMARY SYSTEM BOUNDARY

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6.H. Snubbers

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1. All safety-related snubbers are listed in Plant Surveillance Instructions.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in Plant Surveillance Instructions.

1. Inspection Types

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

2. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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 _____.

4.6.H. Snubbers3. Visual Inspection
Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

4.6.H Snubbers

4.6.H.3 (Cont'd)

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.

4.6.H. Snubbers

4. FUNCTIONAL TEST Schedule, Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of each type of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within the types. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.

4.6.H. Snubbers

4.6.H.5 (Cont'd)

e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that type of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original FUNCTIONAL TEST type have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.



Table 4.6.H-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 more	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.



Table 4.6.H-1 (Continued)

SNUBBER VISUAL INSPECTION INTERVAL

- 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 numbers in Columns B and C.
- Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.



3.6/4.6 BASES

3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same defect shall be functionally tested. A thorough visual inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified.

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.

3.6/4.6 BASES

3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be reclassified as operable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration. Inspection types may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection types is inspected and tested separately unless an engineering analysis indicates the inspection type is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection type.

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)

UNIT 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

REVISED PAGES

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation.	3.2/4.2-52
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	3.2/4.2-53
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation.	3.2/4.2-55
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	3.2/4.2-56
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	3.2/4.2-57
4.2.K	Explosive Gas Instrumentation Surveillance	3.2/4.2-61
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance.	3.2/4.2-62a
3.5-1	Minimum RHRSW and EEGW Pump Assignment.	3.5/4.5-11
4.6.H-1	Snubber Visual Inspection Interval	3.6/4.6-23b
4.9.A	Auxiliary Electrical System	3.9/4.9-15
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start.	3.9/4.9-17
6.2.A	Minimum Shift Crew Requirements	6.0-4

3.6/4.6 PRIMARY SYSTEM BOUNDARY

LIMITING CONDITIONS FOR OPERATION

3.6.H. Snubbers

During all modes of operation, all snubbers shall be OPERABLE except as noted in 3.6.H.1. All safety-related snubbers are listed in Plant Surveillance Instructions.

1. With one or more snubber(s) inoperable on a system that is required to be OPERABLE in the current plant condition, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation on the attached component or declare the attached system inoperable and follow the appropriate Limiting Condition statement for that system.

SURVEILLANCE REQUIREMENTS

4.6.H. Snubbers

Each safety-related snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 3.6.H/4.6.H. These snubbers are listed in Plant Surveillance Instructions.

1. Inspection Types

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

2. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.6.H-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6.H-1 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 _____.

4.6.H. Snubbers

3. Visual Inspection
Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified unacceptable and may be reclassified acceptable 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 4.6.H.5. 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 LIMITING CONDITIONS FOR OPERATION shall be met.

4.6.H Snubbers

4.6.H.3 (Cont'd)

Additionally, snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm OPERABILITY. Snubbers which have been made inoperable as the result of unexpected transients, isolated damage, or other random events, when the provisions of 4.6.H.7 and 4.6.H.8 have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.

4.6.H. Snubbers

4. FUNCTIONAL TEST Schedule, Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of each type of safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of snubbers within the types. The representative sample should be weighed to include more snubbers from severe service areas such as near heavy equipment.

The stroke setting and the security of fasteners for attachment of the snubbers to the component and to the snubber anchorage shall be verified on snubbers selected for FUNCTIONAL TESTS.



4.6.H. Snubbers

4.6.H.5 (Cont'd)

- e. 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.

6. FUNCTIONAL TEST Failure Analysis and Additional Test Lots

An engineering evaluation shall be made of each failure to meet the FUNCTIONAL TEST acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the OPERABILITY of other snubbers which may be subject to the same failure mode. Selection of snubbers for future testing may also be based on the failure analysis. For each snubber that does not meet the FUNCTIONAL TEST acceptance criteria, an additional lot equal to 10 percent of the remainder of that type of snubbers shall be functionally tested. Testing shall continue until no additional inoperable snubbers are found within subsequent lots or all snubbers of the original FUNCTIONAL TEST type have been tested or all suspect snubbers identified by the failure analysis have been tested, as applicable.

Table 4.6.H-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 more	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.

Table 4.6.H-1 (Continued)

SNUBBER VISUAL INSPECTION INTERVAL

- 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 numbers in Columns B and C.
- Note 6: The provisions of Specification 1.0.LL are applicable for all inspection intervals up to and including 48 months.

3.6/4.6 BASES

3.6.H/4.6.H Snubbers

Snubbers are designed to prevent unrestrained pipe or component motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping or components as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the protection is required only during relatively low probability events, a period of 72 hours is allowed to replace or restore the inoperable snubber to operable status and perform an engineering evaluation on the supported component or declare the supported system inoperable and follow the appropriate limiting condition for operation statement for that system. The engineering evaluation is performed to determine whether the mode of failure of the snubber has adversely affected any safety-related component or system.

To verify snubber operability FUNCTIONAL TESTS shall be performed during the refueling outages, at approximately 18-month intervals.

These tests will include stroking of the snubbers to verify proper movement, activation, and bleed or release. Ten percent represents an adequate sample for such tests. Observed failures on these samples will require an engineering analysis and testing of additional units. If the engineering analysis results in the determination that the failure of a snubber to activate or to stroke (i.e., seized components) is the result of manufacture or design deficiency, all snubbers subject to the same defect shall be functionally tested. A thorough visual inspection of the snubber threaded attachments to the pipe or components and the anchorage will be made in conjunction with all required FUNCTIONAL TESTS. The stroke setting of the snubbers selected for functional testing also will be verified.

All safety-related snubbers are also visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate fluid level if applicable, and proper attachment of the snubber to piping and structures. The removal of insulation or the verification of torque values for threaded fasteners is not required for visual inspections.

3.6/4.6 BASES (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25 percent) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber in a visual inspection is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and operability verified by inservice functional testing, if applicable, that snubber may be reclassified as operable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration. Inspection types may be established based on design features, and installed conditions which may be expected to be generic. Each of these inspection types is inspected and tested separately unless an engineering analysis indicates the inspection type is improperly constituted. All suspect snubbers are subject to inspection and testing regardless of inspection type.

ENCLOSURE 4

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3

REQUEST FOR COST BENEFICIAL LICENSING ACTION
RLA-04, PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-346

I. SUMMARY OF RLA-04

BFN Units 1, 2, and 3 Technical Specifications (TS) 3.6.H/4.6.H, "Snubbers," provides visual inspection intervals for all safety-related snubbers.

As part of its Operating and Maintenance Cost Reduction Program, TVA has developed proposed changes to TS 3.6.H/4.6.H and its associated bases to provide alternate visual inspection intervals for safety-related snubbers. The proposed changes incorporate the recommendations of Generic Letter 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions." The proposed TS changes are estimated to yield nearly \$100,000 per unit in one time cost savings and an additional \$50,000 per unit in annual cost savings. The proposed TS changes (TS-346) are being submitted to NRC as Enclosures 1, 2, and 3 to this letter.

II. BACKGROUND

The existing TS specifies a schedule for snubber visual inspections that is based on the number of inoperable snubbers found during the previous visual inspection. This schedule assumes that refueling cycles will not exceed 18 months. Because the current schedule for visual inspections is based only on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population, NRC determined that the visual inspection schedule is excessively restrictive. As a result, NRC developed an alternate schedule for visual inspections that maintains the same confidence level as the existing schedule and generally will allow licensees to perform visual inspections and corrective actions during plant outages. NRC issued the alternate schedule in Generic Letter 90-09. The alternate visual inspection schedule is based on the number of unacceptable snubbers found during the previous inspection in proportion to the size of the various snubber populations or categories.



TVA proposes changes to BFN TS 3.6.H/4.6.H and associated bases to incorporate the recommendations of Generic Letter 90-09. Additionally, TVA has proposed certain editorial and terminology changes to provide consistency between affected sections incorporating the recommendations of Generic Letter 90-09 and those not directly affected. The proposed changes will reduce occupational radiological exposure to plant personnel and generally allow BFN to perform visual inspections and corrective actions during plant outages.

III. REQUESTED NRC LICENSING ACTION

TVA requests NRC review and approval of these proposed changes to the BFN Units 1, 2, and 3 TS by May 1, 1994. This date is necessary in order to support resource planning and allocation for the Unit 2 Cycle 7 refueling outage scheduled to begin on October 1, 1994. These changes are being submitted as Enclosures 1, 2, and 3 to this letter.

IV. BASIS FOR REQUESTED NRC LICENSING ACTION

The proposed alternate snubber visual inspection schedule would allow BFN to extend snubber visual inspection intervals (in accordance with GL 90-09) without reducing the confidence level provided by the existing visual inspection schedule. Verification that a snubber can operate within specified performance limits is provided by functional testing. This testing provides a 95 percent confidence level that at least 90 percent to 100 percent of the snubbers operate within specified performance limits. The performance of visual inspections is a separate process that complements the functional testing program and provides additional confidence in snubber operability. Therefore, revising the schedule for snubber visual inspections, using the guidance provided in GL 90-09, does not reduce the confidence level associated with snubber operability. As a result, a significant amount of resources could be saved and a substantial reduction in occupational radiological exposure could be realized.



V. JUSTIFICATION FOR HIGHER PRIORITY REVIEW

1. RLA-04 is Safety Neutral

The proposed TS change will not result in a decrease in plant safety, since the proposed visual inspection schedule will maintain the same snubber 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 functional testing and provides additional confidence that the installed snubbers will serve their intended design function and are being maintained operable.

2. RLA-04 Provides Significant Cost Savings and Other Benefits

TVA estimates that this TS change will result in a one time savings of \$100,000 per operating unit and an annual savings of \$50,000 per operating unit. The one time savings will be realized as a result of extending (to 36 months) the current inspection interval based on the number of unacceptable snubbers identified during the previous inspection. Additional savings will be realized on an annual basis as a result of maintaining the inspection interval at double (36 months) the current interval. Furthermore, the TS change is expected to substantially reduce occupational radiological exposure.

Additional savings would be realized by reducing the probability of a mid-cycle outage imposed by the present TS visual inspection schedule. Under the present TS schedule one unacceptable snubber (regardless of snubber population) would reduce the visual inspection interval to 12 months (± 25 percent), thus dictating a mid-cycle outage to perform snubber visual inspections. The proposed TS change would eliminate the loss of power generation revenue and the cost incurred for the purchase of replacement power resulting from a mid-cycle outage.



VI. CONCLUSION

The current TS requirements impose a burden on TVA without adding a safety benefit. The proposed TS changes are consistent with the guidance provided in Generic Letter 90-09.

TVA has determined that the proposed TS amendment is a cost beneficial licensing action since it is safety neutral and provides significant cost savings. Therefore, TVA requests expeditious NRC review of this proposed TS change.

