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10 CFR 50.90

Palo Verde Nuclear
Generating Station

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102-05765-DCM/GAM
November 14, 2007

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528, 50-529, and 50-530
Request for Amendment to Add Technical Specification LCO 3.0.8 to
Adopt TSTF-372, "Addition of LCO 3.0.8, Inoperability of Snubbers,"
Using Consolidated Line Item Improvement Process (CLIIP)**

In accordance with the provisions of 10 CFR 50.90, Arizona Public Service Company (APS) hereby requests to amend Operating Licenses NPF-41, NPF-51, and NPF-74 for Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2, and 3, respectively.

The proposed change would modify the Technical Specification (TS) requirements for inoperable snubbers by adding Limiting Condition for Operation (LCO) 3.0.8. The change is consistent with NRC approved Revision 4 to Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-372, "Addition of LCO 3.0.8, Inoperability of Snubbers." The availability of this TS improvement was announced in the Federal Register on May 4, 2005 (70 FR 23252), as part of the consolidated line item improvement process.

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing TS pages marked up to show the proposed change. Attachment 3 provides retyped TS pages. Attachment 4 provides the commitment associated with the proposed changes. Attachment 5 provides the TS Bases pages marked up to show the proposed change. Attachment 6 provides the Technical Requirements Manual pages marked up to show the proposed change.

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U.S. Nuclear Regulatory Commission
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Request for Amendment to Add Technical Specification LCO 3.0.8
"Inoperability of Snubbers"
Page 2

APS requests approval of the proposed License Amendment by October 30, 2008, with the amendment being implemented within 90 days of approval.

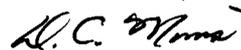
In accordance with the PVNGS Quality Assurance Program, the Plant Review Board and the Offsite Safety Review Committee have reviewed and concurred with this proposed amendment. By copy of this letter, this submittal is being forwarded to the Arizona Radiation Regulatory Agency (ARRA) pursuant to 10CFR 50.91(b)(1).

If there are any questions or if additional information is needed, please contact Glenn A. Michael at (623) 393-5750.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 11/14/07
(Date)

Sincerely,



DCM/SAB/GAM/gat

Attachments:

1. Description and Assessment
2. Proposed Technical Specification Changes (Mark-Up)
3. Revised Technical Specification Pages (Retyped)
4. List of Regulatory Commitments
5. Proposed Technical Specification Bases Changes
6. Proposed Technical Requirements Manual Changes

cc: E. E. Collins Jr. NRC Region IV Regional Administrator
M. T. Markley NRC NRR Project Manager
G. G. Warnick NRC Senior Resident Inspector for PVNGS
A. V. Godwin Arizona Radiation Regulatory Agency
T. Morales Arizona Radiation Regulatory Agency

ATTACHMENT 1

Description and Assessment of Proposed Technical Specification Change To Add New LCO 3.0.8 for Snubbers

1.0 DESCRIPTION

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

2.2 Optional Changes and Variations

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

3.2 Verification and Commitments

4.0 ENVIRONMENTAL EVALUATION

1.0 DESCRIPTION

The proposed amendment would modify technical specification (TS) requirements for inoperable snubbers by adding LCO 3.0.8.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification (STS) change TSTF-372 Revision 4. The availability of this TS improvement was published in the Federal Register on May 4, 2005, (70 FR 23252) as part of the consolidated line item improvement process (CLIP).

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

Arizona Public Service Company (APS) has reviewed the safety evaluation dated May 4, 2005, as part of the CLIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-372. APS has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2, and 3, and justify this amendment for the incorporation of the changes to the PVNGS Units 1, 2, and 3, TS.

2.2 Optional Changes and Variations

APS is not proposing any variations or deviations from the TS changes described in the TSTF-372 Revision 4 or the NRC staff's model safety evaluation dated May 4, 2005.

The proposed TS Bases changes are consistent with those described in TSTF-372 Revision 4, except that the specific restrictions identified in the NRC staff's model safety evaluation dated May 4, 2005, are being added to the proposed new TS Bases for LCO 3.0.8. This will provide additional assurance that the license amendment is implemented consistent with the NRC staff's expectations.

The Technical Requirements Manual Section T3.7.101, "Snubbers," and associated Bases will be revised to be consistent with the change upon implementation of the applicable license amendment and are included for information as Attachment 6.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

APS has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIP. APS has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to

**Attachment 1
Description and Assessment
New LCO 3.0.8 for Snubbers**

PVNGS Units 1, 2, and 3, and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

As discussed in the notice of availability published in the Federal Register on May 4, 2005, for this TS improvement, plant-specific verifications were performed as follows:

APS will establish a TS Bases for LCO 3.0.8 which will provide guidance and details on how to implement the new requirements. LCO 3.0.8 will require that risk be managed and assessed. The Bases will also state that while the Industry and NRC guidance on implementation of 10 CFR 50.65(a)(4), the Maintenance Rule, does not address seismic risk, LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but may be a qualitative assessment of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function. Finally, APS has a Bases Control Program (TS 5.5.14) consistent with Section 5.5 of the STS.

4.0 ENVIRONMENTAL EVALUATION

APS has reviewed the environmental evaluation included in the model safety evaluation dated May 4, 2005, (70 FR 23252) as part of the CLIIP. APS has concluded that the staff's findings presented in that evaluation are applicable to PVNGS Units 1, 2, and 3, and the evaluation is hereby incorporated by reference for this application.

Attachment 2

**Proposed Technical Specification Changes
(Mark-Up)**

Pages:

3.0-1

3.0-3

INSERT



3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2 and LCO 3.0.7, and LCO 3.0.8

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;

(continued)

3.0 LCO APPLICABILITY (continued)

LCO 3.0.6
(continued) When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

LCO 3.0.7 Special test exception (STE) LCOs in each applicable LCO section allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

 Insert TS LCO 3.0.8

INSERT TS LCO 3.0.8

LCO 3.0.8 When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

Attachment 3

**Proposed Technical Specification Changes
(Retyped)**

Pages:
3.0-1
3.0-3

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2, LCO 3.0.7, and LCO 3.0.8.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;

(continued)

3.0 LCO APPLICABILITY (continued)

LCO 3.0.6
(continued) When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

LCO 3.0.7 Special test exception (STE) LCOs in each applicable LCO section allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

LCO 3.0.8 When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support functions(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

Attachment 4

List of Regulatory Commitments

The following table identifies the action committed to by APS in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Glenn Michael at (623) 393-5750.

Regulatory Commitment	Due Date / Event
APS will establish the Technical Specification Bases for LCO 3.0.8 as adopted with the applicable license amendment for snubbers (TSTF-372).	The TS Bases for LCO 3.0.8 will be implemented along with the TS amendment.

Attachment 5

Proposed Technical Specification Bases Changes

Pages:

B 3.0-1

B 3.0-13

INSERT (Page 1 of 2)

INSERT (Page 2 of 2)

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs LCO 3.0.1 through LCO 3.0.1 establish the general requirements applicable to all Specifications and apply at all times unless otherwise stated.

LCO 3.0.1 LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the unit is in the MODES or other specified conditions of the Applicability statement of each Specification).

LCO 3.0.2 LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that:

- a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and
- b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified.

There are two basic types of Required Actions. The first type of Required Action specifies a time limit in which the LCO must be met. This time limit is the Completion Time to restore an inoperable system or component to OPERABLE status or to restore variables to within specified limits. If this type of Required Action is not completed within the specified Completion Time, a shutdown may be required to place the unit in a MODE or condition in which the Specification is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering

)
(continued)

BASES

LCO 3.0.7
(continued)

otherwise specified, all other TS requirements remain unchanged and in effect as applicable. This will ensure that all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed or suspended to perform the special test or operation will remain in effect.

The Applicability of an STE LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with STE LCOs is optional.

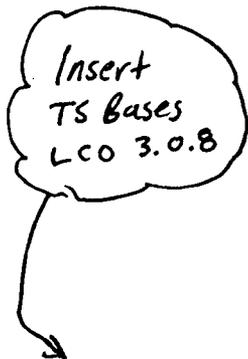
A special test may be performed under either the provisions of the appropriate STE LCO or the other applicable TS requirements. If it is desired to perform the special test under the provisions of the STE LCO, the requirements of the STE LCO shall be followed. This includes the SRs specified in the STE LCO.

Some of the STE LCOs require that one or more of the LCOs for normal operation be met (i.e., meeting the STE LCO requires meeting the specified normal LCOs). The Applicability, ACTIONS, and SRs of the specified normal LCOs, however, are not required to be met in order to meet the STE LCO when it is in effect. This means that, upon failure to meet a specified normal LCO, the associated ACTIONS of the STE LCO apply, in lieu of the ACTIONS of the normal LCO. Exceptions to the above do exist. There are instances when the Applicability of the specified normal LCO must be met, where its ACTIONS must be taken, where certain of its Surveillances must be performed, or where all of these requirements must be met concurrently with the requirements of the STE LCO.

Unless the SRs of the specified normal LCOs are suspended or changed by the special test, those SRs that are necessary to meet the specified normal LCOs must be met prior to performing the special test. During the conduct of the special test, those Surveillances need not be performed unless specified by the ACTIONS or SRs of the STE LCO.

ACTIONS for STE LCOs provide appropriate remedial measures upon failure to meet the STE LCO. Upon failure to meet these ACTIONS, suspend the performance of the special test and enter the ACTIONS for all LCOs that are then not met. Entry into LCO 3.0.3 may possibly be required, but this determination should not be made by considering only the failure to meet the ACTIONS of the STE LCO.

(continued)



INSERT TS Bases LCO 3.0.8 (page 1 of 2)

LCO 3.0.8 LCO 3.0.8 establishes conditions under which systems are considered to remain capable of performing their intended safety function when associated snubbers are not capable of providing their associated support function(s). This LCO states that the supported system is not considered to be inoperable solely due to one or more snubbers not capable of performing their associated support function(s). This is appropriate because a limited length of time is allowed for maintenance, testing, or repair of one or more snubbers not capable of performing their associated support function(s) and appropriate compensatory measures are specified in the snubber requirements, which are located outside of the Technical Specifications (TS) under licensee control. The snubber requirements do not meet the criteria in 10 CFR 50.36(c)(2)(ii), and, as such, are appropriate for control by the licensee.

If the allowed time expires and the snubber(s) are unable to perform their associated support function(s), the affected supported system's LCO(s) must be declared not met and the Conditions and Required Actions entered in accordance with LCO 3.0.2.

LCO 3.0.8.a applies when one or more snubbers are not capable of providing their associated support function(s) to a single train or subsystem of a multiple train or subsystem supported system or to a single train or subsystem supported system. LCO 3.0.8.a allows 72 hours to restore the snubber(s) before declaring the supported system inoperable. The 72 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function and due to the availability of the redundant train of the supported system.

LCO 3.0.8.b applies when one or more snubbers are not capable of providing their associated support function(s) to more than one train or subsystem of a multiple train or subsystem supported system. LCO 3.0.8.b allows 12 hours to restore the snubber(s) before declaring the supported system inoperable. The 12 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function.

INSERT TS Bases LCO 3.0.8 (page 2 of 2)

LCO 3.0.8 requires that risk be assessed and managed. Industry and NRC guidance on the implementation of 10 CFR 50.65(a)(4) (the Maintenance Rule) does not address seismic risk. However, use of LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but may be a qualitative awareness of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function.

In order to utilize LCO 3.0.8, the restrictions listed below shall be met.

1. When LCO 3.0.8 is used, confirm that at least one train (or subsystem) of systems supported by the non-functional snubber(s) would remain capable of performing their required safety or support functions for postulated design loads other than seismic loads. LCO 3.0.8 does not apply to non-seismic snubbers.
2. When LCO 3.0.8 is used, a record of the design function of the nonfunctional snubber(s) (i.e., seismic vs. non-seismic), implementation of the applicable LCO 3.0.8 restrictions, and the associated plant configuration shall be available on a recoverable basis for NRC inspection.
3. When LCO 3.0.8.a is used, at least one AFW train (including a minimum set of supporting equipment required for its successful operation) not associated with the non-functional snubber(s), must be available.
4. When LCO 3.0.8.b is used, at least one AFW train (including a minimum set of supporting equipment required for its successful operation) not associated with the non-functional snubber(s), or some alternative means of core cooling (e.g., fire water system or "aggressive secondary cooldown" using the steam generators) must be available.

Attachment 6

Proposed Technical Requirements Manual Changes (for information)

Pages:

T3.7.101-1

T2.7.101-2

T3.7.101-3

T3.7.101-6

T3.7.101-7

T6.0.100-20

T6.0.100-20A

T6.0.100-21

T3.7 PLANT SYSTEMS

T3.7.101 Snubbers

TLCO 3.7.101 All hydraulic and mechanical snubbers shall be OPERABLE able to perform their associated safety function(s). The only snubbers excluded from this requirement are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more snubbers <u>inoperable unable to perform their associated safety function(s)</u> .	A.1.1 <u>Replace or restore the inoperable snubbers to OPERABLE status and Enter TS LCO 3.0.8 IF the restrictions for utilizing TS LCO 3.0.8 described in the LCO 3.0.8 TS Bases are met.</u>	72 hours <u>Immediately</u>
	<u>OR</u>	
	A.1.2 <u>Declare the supported system inoperable and follow the appropriate ACTION statement for that system.</u>	<u>Immediately</u>
	<u>AND</u>	
	A.2 <u>Perform an engineering evaluation per TSR 3.7.101 Fig on the attached component.</u>	72 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Declare the attached system inoperable and follow the appropriate ACTION statement for that system.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>TSR 3.7.101.1 Each snubber shall be demonstrated OPERABLE <u>able to perform their associated safety function(s)</u> by performance of the attached augmented inservice inspection program and the requirements of ASME Section XI.</p>	<p>In accordance with the attached augmented inservice inspection program and ASME Section XI.</p>

AUGMENTED INSERVICE INSPECTION PROGRAM

a. Snubber Types

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

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 3.7.101-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 3.7.101-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection as interval established by the requirements in effect before Amendment No. 44.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) there are no visible indications of damage or impaired OPERABILITY ~~ability to perform associated safety function(s)~~ and (2) attachments to the foundation or supporting structure are secure, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are secure. Snubbers which appear inoperable ~~unable to perform their associated safety function(s)~~ as a result of visual inspections shall be classified as 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 ~~able to perform its associated safety function(s)~~ per TSR 3.7.101.1.f. When a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable ~~unable to perform its associated safety function(s)~~ and cannot be determined OPERABLE ~~able to perform its associated safety function(s)~~ via functional testing unless the test is started with the piston in the as-found setting, extending the piston rod in the tension mode direction.

(continued)

Augmented Inservice Inspection Program (continued)

f. Functional Test Acceptance Criteria

The snubber functional test shall verify that:

- 1) Activation (restraining action) is achieved within the specified range in both tension and compression;
- 2) Snubber bleed, or release rate where required, is present in both tension and compression, within the specified range;
- 3) For mechanical snubbers, the force required to initiate or maintain motion of the snubber is within the specified range in both directions of travel; and
- 4) For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement.

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

g. Functional Test Failure Analysis

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

For the snubbers found ~~inoperable~~ unable to perform their associated safety function(s), an engineering evaluation shall be performed on the components to which the ~~inoperable~~ nonfunctional snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the ~~inoperable~~ nonfunctional snubbers are attached were adversely affected by the ~~inoperability~~ non-functionality of the snubbers in order to ensure that the component remains capable of meeting the designed service.

If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen-in-place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same type subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated in TSR 3.7.101.1.e for snubbers not meeting the functional test acceptance criteria.

(continued)

Augmented Inservice Inspection Program (continued)

h. Functional Testing of Repaired and Replaced Snubbers

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

i. Snubber Seal Replacement Program

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and shall be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE able to perform its associated safety function(s). The parts replacements shall be documented and the documentation shall be retained for the duration of the Unit Operating License.

TRM SPECIFICATION BASES

The use of ANSI Standard N509 (1980) in lieu of ANSI Standard N509 (1976) to meet the guidance of Regulatory Guide 1.52, Revision 2, Positions C.6.a and C.6.b, has been found acceptable as documented in Revision 2 to Section 6.5.1 of the Standard Review Plan (NUREG-0800).

T3.6.200 Prestressed Concrete Containment Tendon Surveillance

The prestressed concrete containment tendon surveillance program ensures the structural integrity of containment is maintained in accordance with ASME Code Section XI, Subsection IWL of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, except where an exemption or relief has been authorized by the NRC.

T3.7.100 Steam Generator Pressure and Temperature Limitations

The limitation on steam generator pressure and temperature ensures that the pressure induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations to 120°F and 230 psig for Units 1 and 3 are based on a steam generator RT_{NDT} of 40°F and are sufficient to prevent brittle fracture. The limitations to 70°F and 650 psig for Unit 2 are based on a steam generator RT_{NDT} of -20°F and are sufficient to prevent brittle fracture.

T3.7.101 Snubbers

All snubbers are required OPERABLE to be able to perform their associated safety function(s) to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

When one or more snubbers are unable to perform their associated safety function(s), either the supported system must be declared inoperable immediately or TS LCO 3.0.8 must be entered. TS LCO 3.0.8 may only be entered if the restrictions described in the LCO 3.0.8 TS Bases are met. TS LCO 3.0.8 is an allowance, not a requirement. When any snubber is unable to perform its associated safety function, the supported system may be declared inoperable instead of utilizing LCO 3.0.8.

(continued)

TRM SPECIFICATION BASES

Required Action A.2 must be completed whenever Condition A is entered. This Required Action emphasizes the need to perform the evaluation to determine if the components to which the nonfunctional snubbers are attached were adversely affected by the non-functionality of the snubbers in order to ensure that the component remains capable of meeting the designed service. Restoration alone per Required Action A.1.1 or A.1.2 is insufficient because higher than analyzed stresses may have occurred and may have affected the supported system.

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

(continued)

TRM SPECIFICATION BASES

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

The visual inspection frequency is based upon maintaining a constant level of snubber protection. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. In order to establish the inspection frequency for each type of snubber, it was assumed that the frequency of failures and initiating events is constant with time and that the failure of any snubber could cause that system to be unprotected and to result in failure during an assumed initiating event. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

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

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

1. Functionally test 10% of a type of snubber with an additional 10% tested for each functional testing failure, or
2. Functionally test a sample size and determine sample acceptance or rejection using Figure 3.7.101-1, or
3. Functionally test a representative sample size and determine sample acceptance or rejection using the stated equation.

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