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PG&E Letter DCL-06-013

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

Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Diablo Canyon Power Plants (DCPP) Units 1 and 2  
ASME Section XI Inservice Inspection Program Relief Request NDE-SBR

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.55a(a)(3)(i), Pacific Gas and Electric Company hereby requests NRC approval for Inservice Inspection (ISI) Relief Request NDE-SBR.

This request for relief is associated with the use of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, for inservice inspection and testing of snubbers for the second 10-year interval of Diablo Canyon Power Plant (DCPP) Units 1 & 2 ISI Program. The second 10-year interval spans from January 1, 1996, to May 7, 2006, for Unit 1 and from June 1, 1996, to June 30, 2006, for Unit 2.

Enclosure 1 provides the 10 CFR 50.55a Relief Request NDE-SBR, which requests an alternative to the requirements of ASME Section XI. It also provides the bases for the proposed alternative. This alternative would be the continued use of DCPP Equipment Control Guideline (ECG) 99.1, "Snubbers," as the governing set of requirements for snubber inspection and testing.

Enclosure 2 provides DCPP ECG 99.1, "Snubbers," Revision 3A, and the associated bases for general reference.

DCPP requests approval of 10 CFR 50.55a Relief Request NDE-SBR by March 17, 2007. Approval of this relief request will allow DCPP to continue to utilize the existing ECG requirements to govern snubber inspection and testing during the second 10-year interval. For the third 10-year ISI interval, similar relief request will be submitted.

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If you have any questions or require additional information, please contact Stan Ketelsen at (805) 545-4720.

Sincerely,

Donna Jacobs  
*Vice President – Nuclear Services*

why1/4279/A0655759

Enclosures

cc: Diablo Distribution  
cc/enc: Edgar Bailey, DHS  
Terry W. Jackson, Senior Resident Inspector  
Bruce S. Mallett, Region IV  
Alan B. Wang, NRR  
State of California, Pressure Vessel Unit

**Request for Relief NDE-SBR for  
Inservice Inspection and Testing of Snubbers for the Second  
10-year Interval of Diablo Canyon Power Plant Units 1 & 2  
Inservice Inspection Program**

**10 CFR 50.55a Relief Request NDE-SBR**

**Proposed Alternative  
in Accordance with 10 CFR 50.55a(a)(3)(i)**

**--Alternative Provides Acceptable Level of Quality and Safety--**

**1. ASME Code Component(s) Affected**

Diablo Canyon Power Plant (DCPP) Units 1 and 2 all Section XI Code Class 1, 2, and 3 snubbers.

**2. Applicable Code Edition and Addenda**

ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition without Addenda.

**3. Applicable Code Requirement**

An alternative is requested to the following ASME Section XI requirements for inspection and testing of snubbers:

- (a) Preservice/Inservice examinations in accordance with ASME/ANSI OM, Part 4.
- (b) Preservice/Inservice tests in accordance with ASME/ANSI OM, Part 4.
- (c) Third-Part Authorized Inspection Agency inspection activities for snubber examination and testing in accordance with IWA-2210.
- (d) Reporting of snubber examinations and testing in accordance with IWA-6200.

**4. Reason for Request**

ASME Section XI, 1989 Edition without Addenda, Subarticles IWF-5200 (a) and (b), and IWF-5300 (a) and (b), specify that snubber preservice/inservice examinations and tests be performed in accordance with ASME/ANSI OM, Part 4.

Snubber inspections and tests at DCPP Units 1 & 2 are currently performed under Equipment Control Guideline (ECG) 99.1, "Snubbers," and its implementing procedures. The current inspection/testing program as defined by the ECG provides for an acceptable level of quality and safety equal to or greater than that of ASME Section XI.

**5. Proposed Alternative and Basis for Use**

In lieu of implementing the Section XI requirements for snubber examination and testing, it is proposed that the preservice/in-service inspection and testing be performed under DCPD ECG 99.1, "Snubbers," and implementing procedures. The proposed alternative and basis for use is discussed in Sections (a) through (d) below.

For clarification, this 10 CFR 50.55a request includes only the snubber and its pin-to-pin connections and does not include the remaining portion of the Section III NF support containing a snubber. As required by IWF-5200 (c) and IWF-5300 (c), the examination of the remaining portion of the support, including integral and nonintegral attachments, for supports containing snubbers will be performed in accordance with Section XI Subsection IWF as part of the Inservice Inspection (ISI) Program Plan. Specifically, as part of the examinations required by the ISI Program Plan, DCPD will visually examine (VT-3) the ASME Section XI IWF portion of supports in accordance with Subsection IWF. Additionally, the snubber and its pin-to-pin connections to the rest of the support are also included in the VT-3 examination performed in accordance with Subsection IWF.

**(a) Visual Snubber Examinations**

The DCPD ECG Snubber Program visual inspection requirements for snubbers are comparable with Section XI VT-3 requirements. IWF-5000 requires that the OM Part 4 examinations be performed using the VT-3 visual examination method described in IWA-2213. IWA-2213 reads as follows:

- "(a) The VT-3 visual examination shall be conducted to determine the general mechanical and structural condition of components and their supports, such as the verification of clearances, settings, physical displacements, loose or missing parts, debris, corrosion, wear, erosion or the loss of integrity at bolted or welded connections.*
- (b) The VT-3 examinations shall include examinations for conditions that could affect operability or functional adequacy of snubbers and constant load and spring type supports.*
- (c) For component supports and component interiors, the visual examination may be performed remotely with or without optical aids to verify the structural integrity of the components."*

The DCPD ECG states that:

*"Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or support structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional."*

The DCPD procedure that implements the ECG snubber inspections includes requirements to inspect for the following conditions:

- Snubbers shall have no visible indication of damage or impaired operability.
- Attachments (including welds) to the foundation or supporting structure shall be functional.
- Fasteners for attachment of the snubber to the component and to the snubber anchorage shall be functional.
- Hydraulic fluid system and supply shall be functional.

The intent and scope of the ASME/ANSI OM, Part 4, and the DCPD snubber program are essentially equal, although the Code wording is more detailed than the ECG in listing specific items to be included. However, the implementing procedure for the ECG snubber inspections closely parallels the Code listing. Also, the ECG snubber inspections are performed by personnel that are specifically trained and qualified to perform visual examinations of snubbers.

The DCPD ECG also incorporates the reduced visual inspection frequency table as provided in NRC Generic Letter 90-09, which is similar to the provisions in OM Code Subsection ISTD. This results in a significant reduction in unnecessary radiological exposure to plant personnel, a savings in company resources, and compliance with visual inspection requirements while maintaining the same confidence level in snubber operability as that provided by following Section XI requirements.

#### **(b) Snubber Testing**

The DCPD ECG snubber testing requirements for snubbers are comparable with ASME/ANSI OM, Part 4. ASME/ANSI OM, Part 4, requires, in part, that:

*"Snubber operational readiness test shall verify the following:*

- (a) *activation is within the specified range of velocity or acceleration in tension and in compression;*

- (b) *release rate, when applicable, is within the specified range in tension and in compression. For units specifically required not to be displaced under continuous load, ability of the snubber to withstand load without displacement;*
- (c) *for mechanical snubbers, drag force is within specified limits, in tension and in compression.”*

The DCPD ECG states that:

*“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.”*

The DCPD ECG snubber testing program provides for comprehensive and conservative requirements that are effective in providing a reliable snubber population. This results in increased confidence in plant safety. The use of the DCPD ECG addresses the intent and scope of the requirements in Section XI Article IWF-5000 in a single governing document that can be consistently applied.

#### **(c) Authorized Inspection Agency**

Services of an Authorized Inspection Agency (AIA) and Authorized Nuclear Inservice Inspectors (ANIs) are not included in the OM Code and are not explicitly defined in ASME Section XI for snubber inspections and tests. Similarly, DCPD's snubber inspection and testing in accordance with ECG 99.1 has not included involvement of an AIA or ANIs in the second 10-year inspection interval. ANI qualification in accordance with ASME QAI-1 does not include knowledge of OM Code examinations and tests for snubber operability nor of DCPD's ECG requirements for snubber inspections, therefore, lack of involvement of an AIA and ANIs do not result in a reduction of quality and safety.

#### **(d) Reports**

Section XI IWA-6000, “Records and Reports,” requires owners to prepare the Owner's Report for Inservice Inspection, Form NIS-1, for preservice

and inservice examination of Class 1 and 2 pressure retaining components and their supports and submit the report to the NRC. However, IWA-6000 is not clear concerning what records and reports are required for snubbers. IWA-6340 clearly does not address records for snubber testing and is not clear regarding snubber examination records. OM Part 4 does clearly require records of snubber examinations and tests to be prepared and maintained by the owner but does not require submittal of any reports to the NRC.

The DCPD Quality Assurance Program maintains records of snubber inspections and tests performed in accordance with the ECG and its implementing procedures in lieu of the requirements of Section XI and OM Part 4. These records are available for review to demonstrate the acceptability of snubbers at DCPD.

Reports of inspection of Class 1 and Class 2 supports under Subsection IWF, including snubbers, have been submitted as part of the Owners Report of Inservice Inspection under Subsection IWA-6000.

### **Conclusion**

Snubber inspections and testings at DCPD are currently performed under ECG 99.1, "Snubbers." The current inspection/testing program as defined by the ECG provides for an acceptable level of quality and safety equal to or greater than that of ASME Section XI.

### **6. Duration of Proposed Alternative**

Snubber visual inspections and testing are scheduled and performed in accordance with ECG 99.1, "Snubbers," during the second 10-year inspection interval.

### **7. Precedents**

Wolf Creek Relief Request I2R-15 was previously granted to use the Technical Requirement Manual (TRM) alternative during the second 10-year inservice inspection interval for snubber testing/inspection. Reference Wolf Creek Letter Numbers WM 95-0129, dated August 30, 1995, ET 95-0126, dated November 17, 1995, and NRC approval Safety Evaluation Report dated October 24, 1997. (TAC No. M93381)

The NRC approved McGuire Nuclear Station Unit 2 Relief Request RR-03-002 on November 22, 2004, to allow the use of their Selected Licensee Commitment 16.9.15 for their third 10-year inservice inspection interval for snubber testing/inspection. (TAC No. MC2384)

Susquehanna Steam Electric Station Units 1 and 2 Relief Request  
3RR-03 was approved by the NRC on September 24, 2004, to allow the  
use of their TRM snubber program for their third 10-year inservice  
inspection interval for snubber testing/inspection.  
(TAC Nos. MC1185 and MC1186)

**Equipment Control Guideline 99.1, "Snubbers"**  
**Revision 3A**

99.1 MISCELLANEOUS

99.1 Snubbers

ECG 99.1 All snubbers shall be OPERABLE. 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

-----NOTE-----

Prior to exceeding the Completion Time of any Required Action, a 10 CFR 50.59 evaluation must be approved by the PSRC justifying the acceptability of exceeding the Completion Time.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more snubber(s) inoperable.	A.1.1 Restore snubber(s) to OPERABLE status.	72 hours
	<u>OR</u> A.1.2 Replace snubber(s).	72 hours
	<u>AND</u> A.2 Perform an engineering evaluation per SR 99.1.5 on the attached component.	72 hours
B. Required Action(s) above and associated Completion Time not met.	B.1 Declare attached component or supported system inoperable and follow the appropriate Technical Specification or ECG for that system.	Immediately

**SURVEILLANCE REQUIREMENTS**

-----NOTES-----

1. Each snubber shall be demonstrated **OPERABLE** by performance of the following augmented inservice inspection program and the requirements of Technical Specification 4.0.5 (ITS 5.5.8 and ISI Program).
2. As used in this ECG, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

SURVEILLANCE		FREQUENCY
SR 99.1.1	<p><u>Visual Inspections</u></p> <p>a. Snubbers may be categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently or jointly according to the schedule determined by Table 99.1-1. The visual inspection interval for each category of snubber shall be determined based upon the criteria provided in Table 99.1-1, 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 License Amendment Nos. 66 and 65.</p>	Per Table 99.1-1
		(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 99.1.1    <u>Visual Inspections</u> (continued)</p> <p>    b.    <u>Visual Inspection Acceptance Criteria</u></p> <p>        Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections 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 SR 99.1.4. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.</p>	

(continued)

**SURVEILLANCE REQUIREMENTS (continued)**

<b>SURVEILLANCE</b>		<b>FREQUENCY</b>
<b>SR 99.1.2</b>	<p><b><u>Transient Event Inspection</u></b></p> <p>a. A visual inspection shall be performed of all hydraulic and mechanical snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients as determined from a review of operational data.</p> <p>b. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement; or (2) evaluation of in-place snubber piston setting; or (3) stroking the mechanical snubber through its full range of travel.</p>	<p>Within 6 months following transient event.</p>
<b>SR 99.1.3</b>	<p><b><u>Functional Tests</u></b></p> <p>A representative sample of snubbers of each type shall be tested using one of the following sample plans. The sample plan shall be selected prior to the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan selected for each snubber type prior to the test period or the sample plan used in the prior test period shall be implemented:</p>	<p>During the first refueling shutdown.</p> <p><b><u>AND</u></b></p> <p>24 months thereafter during shutdown.</p> <p>(continued)</p>

**SURVEILLANCE REQUIREMENTS (continued)**

	SURVEILLANCE	FREQUENCY
SR 99.1.3	<p><b>Functional Tests (continued)</b></p> <p>a. At least 10% of the total of each type of snubber shall be functionally tested either in place or in a bench test. For each snubber of a type that does not meet the functional test acceptance criteria of SR 99.1.4, an additional sample equal to 1/2 the original sample or 5%, whichever is greater, of that type of snubber shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested; or</p> <p>b. A representative sample of each type of snubber shall be functionally tested in accordance with Figure 99.1-1, "C" is the total number of snubbers of a type found not meeting the acceptance requirements of SR 99.1.4. The cumulative number of snubbers of a type tested is denoted by "N". At the end of each day's testing, the new values of "N" and "C" (previous day's total plus current day's increments) shall be plotted on Figure 99.1-1. If at any time the point plotted falls in the "Reject" region, all snubbers of that type shall be functionally tested. If at any time the point plotted falls in the "Accept" region, testing of snubbers of that type may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers of that type shall be tested until the point falls in the "Accept" region or the "Reject" region, or all the snubbers of that type have been tested; or</p>	<p>(continued)</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 99.1.3    <u>Functional Tests</u> (continued)</p> <p>c.    An initial representative sample of 55 snubbers shall be functionally tested. For each snubber type which does not meet the functional test acceptance criteria, another sample of at least one-half the size of the initial sample shall be tested until the total number tested is equal to the initial sample size multiplied by the factor, <math>1 + C/2</math>, where "C" is the number of snubbers found which do not meet the functional test acceptance criteria. The results from this sample plan shall be plotted using an "Accept" line which follows the equation <math>N = 55(1 + C/2)</math>. Each snubber point should be plotted as soon as the snubber is tested. If the point plotted falls on or below the "Accept" line, testing of that type of snubber may be terminated. If the point plotted falls above the "Accept" line, testing must continue until the point falls in the "Accept" region or all the snubbers of that type have been tested.</p>	<p>(continued)</p>

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 99.1.3	<p><u>Functional Tests</u> (continued)</p> <p>c. (continued)</p> <p>Testing equipment failure during functional testing may invalidate that day's testing and allow that day's testing to resume anew at a later time provided all snubbers tested with the failed equipment during the day of equipment failure are retested. The representative sample selected for the functional test sample plans shall be randomly selected from the snubbers of each type and reviewed before beginning the testing. The review shall ensure, as far as practicable, that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each type. Snubbers placed in the same location as snubbers which failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan. If during the functional testing, additional sampling is required due to failure of only one type of snubber, the functional test results shall be reviewed at that time to determine if additional samples should be limited to the type of snubber which has failed the functional testing.</p>	

(continued)

**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE	FREQUENCY
<p>SR 99.1.4    <u>Functional Test Acceptance Criteria</u></p> <p>The snubber functional test shall verify that:</p> <ol style="list-style-type: none"> <li>1) Activation (restraining action) is achieved within the specified range in both tension and compression;</li> <li>2) Snubber bleed, or release rate where required, is present in both tension and compression, within the specified range;</li> <li>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</li> <li>4) For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement.</li> </ol> <p>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.</p>	

(continued)

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 99.1.5	<p><u>Functional Test Failure Analysis</u></p> <p>An engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested in an effort to determine the OPERABILITY of other snubbers irrespective of type which may be subject to the same failure mode.</p> <p>For the snubbers found inoperable, an engineering evaluation shall be performed on the components to which the inoperable snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the inoperable snubbers are attached were adversely affected by the inoperability of the snubbers in order to ensure that the component remains capable of meeting the design service.</p> <p>If any snubber selected for functional testing either fails to lockup 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 SR 99.1.3 for snubbers not meeting the functional test acceptance criteria.</p>	Per Required Action A.2 above.

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 99.1.6	<p><u>Functional Testing of Repaired and Replaced Snubbers</u></p> <p>Snubbers that fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers that have repairs which might affect the functional test results shall be tested to meet the functional test criteria before installation in the unit. Mechanical snubbers shall have met the acceptance criteria subsequent to their most recent service, and the freedom-of-motion test must have been performed within 12 months before being installed in the unit.</p>	Before installation in the unit.
SR 99.1.7	<p><u>Snubber Service Life Program</u></p> <p>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. The parts replacements shall be documented and the documentation shall be retained in accordance with Technical Specification 6.10.2 (FSAR Section 17.17).</p>	24 months

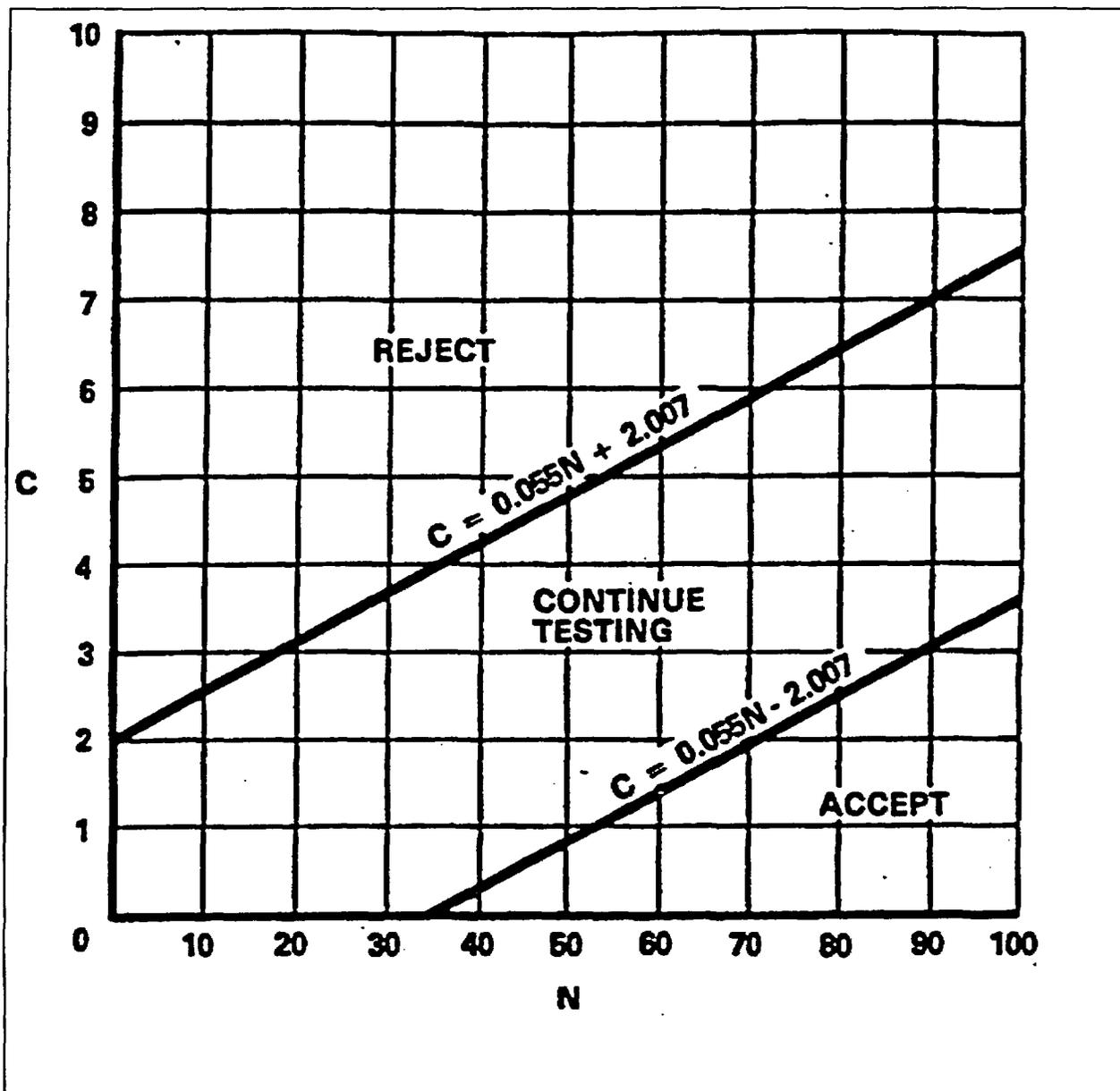


FIGURE 99.1-1  
SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST  
(SEE SR 99.1.3.b)

Table 99.1-1  
SNUBBER VISUAL INSPECTION INTERVAL

Category Size (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber 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 decision must be made and documented before any inspection and this decision shall be used as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between 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 Column B and C.

Note 6: The provisions of SR 0.2 are applicable for all inspection intervals up to and including 48 months.

## BASES

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All snubbers are required **OPERABLE** 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 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.

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 Staff Review Committee. 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 during an earthquake or severe transient. The method for determining the next interval for the visual inspection of snubbers is provided based upon the number of unacceptable snubbers found during the previous inspection, the category size, and the previous inspection interval per NRC Generic Letter 90-09. A snubber is considered unacceptable if it fails to satisfy the acceptance criteria of the visual inspection.

Any inspection whose results require a shorter inspection interval will override the previous schedule.

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

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

1. Functionally test 10% of a type of snubber with an additional sample expansion of 1/2 the original or 5%, whichever is greater, tested for each functional testing failure (see SR 99.1.3.a), or
2. Functionally test a sample size and determine sample acceptance or rejection using Figure 99.1-1 (see SR 99.1.3.b), or
3. Functionally test a representative sample size and determine sample acceptance or rejection using the stated equation (see SR 99.1.3.c).

Figure 99.1-1 was developed using "Wald's Sequential Probability Ratio Plan" as described in "Quality Control and Industrial Statistics" by Acheson J. Duncan.

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

BASES (continued)

The service life of a snubber is established via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc.). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

Revision 3 to ECG 99.1 extended the frequency for SR 99.1.3 and 99.1.7 from 18 months to 24 months, to be consistent with 24 month fuel cycles. The bases for allowing this extension were 1) the extension was consistent with reference 7, and 2) a review of snubber operational, maintenance, and surveillance testing history has demonstrated that the snubbers are reliable and can be expected to perform their required function when tested on a 24 month interval.

REFERENCES

1. License Amendment Request 94-05, "Relocation of Selected 3/4.7 Technical Specifications in Accordance with NRC Final Policy Statement and NUREG-1431"
2. License Amendments 106 (Unit 1) and 105 (Unit 2), dated July 6, 1995
3. License Amendment Request 91-02, "Revision of Snubber Visual Inspection Intervals and Corrective Action Technical Specifications per NRC Generic Letter 90-09"
4. License Amendments 66 (Unit 1) and 65 (Unit 2), dated September 19, 1991
5. Technical Specification 6.10.2 (FSAR Section 17.17)
6. Technical Specification 4.0.5 (ITS 5.5.8 and ISI Program)
7. ASME/ANSI OM Part 4, OMa-1988 Addenda to the OM-1987 Edition.

5-24-00  
Effective Date