

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA)	
EDISON COMPANY, <u>ET AL.</u> for a Class 103)	Docket No. 50-362
License to Acquire, Possess, and Use)	
a Utilization Facility as Part of)	Amendment Application
Unit No. 3 of the San Onofre Nuclear)	No. 82
Generating Station)	

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 82.

This amendment application consists of Proposed Technical Specification Change No. NPF-15-294 to Facility Operating License No. NPF-15. Proposed Technical Specification Change No. NPF-15-294 is a request for a one-time surveillance interval extension to Technical Specification 3/4.7.6, "Snubbers." The proposed change would increase the visual inspection interval for certain inaccessible snubbers from 12 months \pm 25% to 20 months \pm 25% to support nominal 24 month fuel cycle (Cycle 4) operation.

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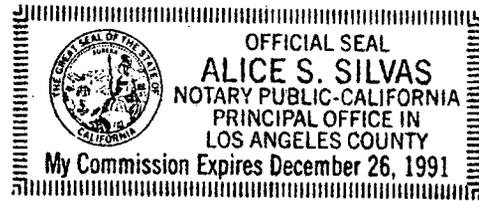
Subscribed on this 26th day of July, 1989.

Respectfully submitted,
SOUTHERN CALIFORNIA EDISON COMPANY

By: *Wm. P. Bush*

Subscribed and sworn to before me this
26th day of July, 1989.

Alice S. Silvas
Notary Public in and for the County of
Los Angeles, State of California



Charles R. Kocher
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Attorneys for Southern
California Edison Company

By: *James A. Beoletto*

DESCRIPTION OF PROPOSED CHANGE
NPF-15-294 AND SAFETY ANALYSIS

This is a request to revise Technical Specification 3/4.7.6, "Snubbers."

EXISTING SPECIFICATION:

Unit 3: See Attachment "A"

PROPOSED SPECIFICATION:

Unit 3: See Attachment "B"

DESCRIPTION:

In the spring of 1987, San Onofre Unit 3 changed the duration of its refueling cycle from approximately 15 months to a nominal 24 months. Plant Technical Specification (TS) 3/4.7.6, "Snubbers," requires that at least once per 18 months ($\pm 25\%$) a visual inspection of "accessible" and "inaccessible" mechanical and hydraulic snubber groups be performed. In the case of Unit 3, this inspection period has been reduced to 12 months ($\pm 25\%$), because one (1) inaccessible snubber was found to be inoperable during the previous inspection in June, 1988. NCR 3-2065, written on July 7, 1988, documented that snubber S3-S1-045-A-016-T (PSG-35) was found frozen. The root cause was determined to be vibration induced damage. Using the July 7, 1988 NCR date as the initiation of the subsequent visual inspection period, the maximum allowable date, including the 25% extension, for performance of the required visual inspection of all inaccessible snubbers is October 7, 1989.

The performance of the current Technical Specification visual inspections of remaining inaccessible mechanical snubbers would require unit shutdown because many of the snubber inspections require the use of ladders or scaffolding, and these snubbers are in high radiation areas where inspection during operation would result in unnecessarily high personnel radiation exposures, thus compromising ALARA program objectives. The purpose of this proposed one-time Technical Specification change is to allow Unit 3 to complete its current 24 month refueling cycle (Cycle 4) without having to shutdown to satisfy the required 12 month visual inspection. On the basis of information presented below, SCE hereby requests that the 12 month inspection period be waived, and that the requirement be changed to 20 months $\pm 25\%$. Since San Onofre Unit 3 is scheduled to be shutdown for refueling on March 15, 1990, this one-time change will allow us to perform the required visual inspections during the refueling outage when personnel hazards are not as significant.

In an effort to eliminate the need to request this one-time extension of the snubber visual inspection period, SCE attempted to perform a complete visual inspection of the 471 inaccessible snubbers during the recent Unit 3 mini-outage which ended in early April. Due to the short duration of this outage, SCE was unable to inspect 99 of these snubbers in the most difficult to reach locations (requiring ladders, scaffolding or special dosimetry packages). However, snubber S3-S1-045-A-016-T and three other snubbers (judged to be similar in terms of local environmental conditions and function) were successfully inspected during this outage.

None of the 372 inspected snubbers were found to be inoperable, and no evidence of conditions resembling those which caused the single snubber to fail in June, 1988 was found.

In researching recent industry applications in this area, SCE has reviewed the statistical analysis of snubber groups performed by Alabama Power Company for the Joseph M. Farley nuclear plant in support of their 1987 request for a Technical Specification change allowing a one-time extension of the visual surveillance period for the inaccessible snubbers of Farley Units 1 and 2. This statistical analysis, requiring the maintenance of at least a 95 percent confidence level that at least 90 percent of the snubber group remains operable, was performed for a snubber group equal to or greater than 200. The result of this analysis demonstrated that for zero, one or two inoperable snubbers from the previous inspection, the group confidence level and reliability level were in fact substantially greater than 95 percent and 90 percent, respectively, for a "next inspection period" of 18 months \pm 25%. This is a very conservative result for total snubber populations much greater than 200, and both Farley and San Onofre have snubber populations greater than 800 in each unit.

Technical Specification 3/4.7.6 requires a self-correcting snubber inspection and testing program. Therefore, a snubber program with a history of very few inoperable snubbers per inspection period should not be unduly penalized. Table 1 provides the successful San Onofre snubber visual inspection history. Thus, we request the one-time Technical Specification change noted above on the basis of the following:

1. San Onofre Units 2 and 3 have a very successful snubber program. Since 1983, we have visually inspected a total of 11,570 snubbers in both units. There have been only 9 visual failures in this time period. This equates to a visual inspection failure rate of 0.078%. (See Table 1)
2. The April, 1989 inspection of 372 out of 471 inaccessible snubbers (almost 80%) in Unit 3 revealed no inoperable snubbers. Inspection of the most recently inoperable snubber showed no repetition of the June, 1988 conditions. In addition, during the recent (July, 1989) outage to repair a leaking Unit 3 Low Pressure Safety Injection pump seal, 21 of the remaining 99 mechanical snubbers and all 8 of the hydraulic snubbers were visually inspected with no non-conformances noted. (Inspections were performed after a review of uninspected snubber locations which are accessible without scaffolding, using safety belts and structural steel for access and safety. Continuous health physics coverage was required for the duration of inspection in containment.)
3. The proposed Technical Specification change will allow Unit 3 to complete its current scheduled operating cycle (Cycle 4) without being required to shutdown to perform snubber visual inspections. This lowers the probability of unusual events which are more likely to occur during transient operation (heatup and cooldown) than at full power steady state operation. Increasing the visual inspection interval eliminates a shutdown, and therefore one cooldown/heatup cycle for Unit 3 that would otherwise be required before the unit is shutdown for refueling in March of 1990.

4. Extension of the visual inspection interval effectively increases the maximum allowable interval by approximately 60%. Statistical analyses of snubber failure by the Farley plant for large snubber populations show that a similar inspection interval increase has no significant detrimental effect on the confidence level or reliability level of snubber operability.
5. The cost of performing the visual inspections during an unscheduled maintenance outage is considered to be excessive in comparison to the benefits realized by performing the inspections, since these inspections would require a cold shutdown period of at least a month, including cooldown and heatup periods.
6. Performing the visual inspections during the refueling outage is most advantageous from an ALARA standpoint, because inaccessible area radiation dose will be substantially lower, and the outage duration is such that detailed radiation protection planning can be applied to the inspection program.

Note that should another unscheduled maintenance outage of sufficient duration occur, as many inspections of the remaining 78 uninspected mechanical snubbers will be performed as possible during that outage.

SAFETY ANALYSIS:

The proposed one-time change to extend the snubber inspection interval from 12 months \pm 25% to 20 months \pm 25% shall be deemed to involve a significant hazards consideration if there is a positive finding in any one of the following areas:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

Snubbers are installed to maintain the structural integrity of systems and components which mitigate the consequences of accidents and whose failure may initiate a previously analyzed accident. The proposed one-time change revises the period of visual inspection to determine snubber operability. The proposed change, therefore, may affect the probability or consequences of previously analyzed accidents. While the proposed change increases the interval between visual inspections, which may reduce confidence in the snubber operability by the end of the interval, statistical analysis has shown that the current inspection interval and attendant confidence level for large snubber populations is very conservative. Since 1983 SCE has visually inspected 11,451 snubbers between Unit 2 and Unit 3. There have been only 9 visual failures in this time period, corresponding to a failure rate of 0.078%. Based upon this inspection history, SCE has no reason to believe that the proposed one-time change, extending the current Technical Specification visual inspection period by approximately 60%, will result in a significant increase in the probability or consequences of any accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed Technical Specification change does not change the number, type, design, function or remaining service life of snubbers in the unit. It affects only the frequency of snubber visual inspection. The proposed change does not alter the configuration of the facility or its operation. Therefore, the proposed change does not create the possibility of a new or different kind of accident.

3. Will operation of the facility in accordance with the proposed change involve a significant reduction in a margin of safety?

Response: No

As discussed in the response to Item 1, above, the proposed change does increase the period of snubber visual inspection on a one-time basis, which may slightly reduce the confidence in snubber operability at the end of the inspection interval and the associated margin of safety. However, past operating experience indicates that SCE's current snubber program is more than adequate in minimizing snubber failures. The chance of a snubber failure occurring during the increased visual inspection time interval is very small, based on statistical analysis. Therefore, the proposed change does not involve a significant reduction in margin of safety.

SAFETY AND SIGNIFICANT HAZARDS DETERMINATION:

Based on the above Safety Analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.

MJH:l/nrc1

TABLE 1

San Onofre Nuclear Generating Station
Visual Inspection Snubber History

<u>I. Unit 2 Failures</u>			<u>Unit 3 Failures</u>		
<u>Date</u>	<u>Visual Inaccessible</u>	<u>Visual Accessible</u>	<u>Date</u>	<u>Visual Inaccessible</u>	<u>Visual Accessible</u>
6/83	0	0	2/84	0	1
12/83	0	0	3/85	0	1
2/85	1	1	1/86	0	0
5/86	0	0	3/87	1	1
8/87	N/A	1	6/88	N/A	1
10/87	0	N/A	6/88	1	N/A
11/88	N/A	0			

II. Current Unit 2 Safety-Related Snubber Population

<u>Post-Snubber Reduction</u>	<u>Inaccessible</u>	<u>Accessible</u>	<u>Total</u>
Mechanical	566	366	932
Hydraulic	<u>8</u>	<u>0</u>	<u>8</u>
Total	574	366	940

Pre-Snubber Reduction

Mechanical	637	489	1,126
Hydraulic	<u>8</u>	<u>0</u>	<u>8</u>
Total	645	489	1,134

Unit 2 Total Inspected = 5,996
 Number of Visual Failures = 3
 Percent Visual Failures = 0.05%

III. Current Unit 3 Safety-Related Snubber Population

<u>Post-Snubber Reduction</u>	<u>Inaccessible</u>	<u>Accessible</u>	<u>Total</u>
Mechanical	471	333	804
Hydraulic	<u>8</u>	<u>0</u>	<u>8</u>
Total	479	333	812

Pre-Snubber Reduction

Mechanical	639	470	1,109
Hydraulic	<u>8</u>	<u>0</u>	<u>8</u>
Total	647	470	1,117

Unit 3 Total Inspected = 5,574
 Number of Visual Failures = 6
 Percent Visual Failures = 0.11%

ATTACHMENT "A"
UNIT 3 EXISTING SPECIFICATION

PLANT SYSTEMS

3/4.7.6 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.6 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).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.6.g on the attached component or declare the attached system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.6 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program.

a. Inspection Types

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

b. Visual Inspections

The first inservice visual inspection of snubbers shall be performed after 4 months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If less than two snubbers are found inoperable during the first inservice visual inspection, the second inservice visual inspection shall be performed 12 months \pm 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

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

*The inspection interval shall not be lengthened more than one step at a time.

#The provisions of Specification 4.0.2 are not applicable.