

**BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of	)	
SOUTHERN CALIFORNIA EDISON COMPANY	)	Docket Nos.
(San Onofre Nuclear Generating Station)	)	San Onofre 50-361 and 50-362-LA
	)	November 16, 2012
	)	

**CITIZENS OVERSIGHT'S ANSWER TO SUBMISSIONS BY NRC STAFF AND SOUTHERN CALIFORNIA EDISON OPPOSING THE PETITION TO INTERVENE AND REQUEST FOR A HEARING BY CITIZENS OVERSIGHT.**

**I. INTRODUCTION**

The licensee (Southern California Edison Company, "SCE") submitted a license amendment request (LAR) for San Onofre Nuclear Generating Station ("SONGS"), Units 2 and 3, dated July 29, 2011, requesting approval to convert the Current Technical Specifications ("CTS") to be consistent with the most recently approved version of the Standard Technical Specifications ("STS") for Combustion Engineering Plants, NUREG-1432.

Pursuant to 10 C.F.R. § 2.309, Petitioner submitted a petition to intervene and request for a hearing in the NRC proceeding to amend the operating license for SCE's San Onofre plant. Subsequently, NRC Staff and SCE submitted substantially similar opposition documents. This response will attempt to effectively deal with their concerns in an effort to provide valuable oversight by the public.

Supreme Court Justice Louis Brandeis wrote that "the most important office, and the one which all of us can and should fill, is that of private citizen. The duties of the office of private citizen cannot under a republican form of government be neglected without serious injury to the public."<sup>1</sup>

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<sup>1</sup> Statement to a reporter in the *Boston Record*, 14 April 1903. (quoted in Alpheus Thomas Mason, *Brandeis: A Free Man's Life* (1946), p. 122.) Commonly paraphrased as "The most

Citizens Oversight, Inc., or "Citizens Oversight Projects" (COPS) was first organized in 2006 and incorporated in as a 501(c)3 nonprofit in 2011. The primary mission of COPS is to improve oversight of our democratic republic form of government, at all levels. What we quickly realized is that most governmental bodies have insufficient oversight by the public, and this can frequently result in waste, fraud and abuse. Governmental bodies become accustomed to no one showing up for meetings and relax into a mode which assumes that the public will not be involved. At times they erect substantial thresholds for participation, make documents and information difficult to obtain, and devise procedures that are difficult to comply with or at least limit the involvement of the public as much as possible. In this case, the NRC provides a means for the public to participate but it is interesting to note that both the regulatory agency and the utility have submitted contributions arguing against participation rather than arguing for it.

Apparently, COPS is the only entity providing such valuable oversight to this proceeding in the form of a request for a hearing, and therefore, we request that the organization grant the request to provide this oversight. In addition, the SONGS facility has been under a great cloud of uncertainty, and failing to grant the request of COPS for this hearing will only add to the view that the regulatory agency is shielding the utility from scrutiny.

COPS is extremely concerned about the contentions raised in this intervention and request for a hearing, particularly Contention 1, which will severely limit the ability of the public, including COPS to provide oversight in the future.

In the following sections, COPS will address the various concerns brought forth by both the utility and NRC staff in an effort to block this attempt to provide valuable oversight.

## II. TIMELINESS

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important office is that of the private citizen" or "The most important political office is that of the private citizen", and sometimes misattributed to his dissenting opinion in *Olmstead v. United States*.

COPS admits that the final document in the filing was submitted after the deadline of October 15, although this came as a complete surprise to us as we were under the impression that we had met the deadline. Apparently, we had reversed the dates on the announcement, since the deadline for comment was September 17, our notes reversed that and we ended up understanding the deadline for submission of our document to be October 17 instead of October 15. On October 1, 2012 -- substantially before the deadline -- we started the submission process. We contacted NRC staff and they established a docket for our petition, and access to the document submission system. Thus, had we not been misinformed about the deadline date, we could have easily submitted the actual document prior to that date.

Since we had already established the docket for this request on October 1st, thereby notifying your organization that we intended to participate in the opportunity to provide oversight, we argue that although the actual document itself was uploaded after the arbitrary deadline, our request did reach your organization in a substantially timely manner.

The establishment of the docket for the action and setting up our computer system so that it can submit documents with a certificate is not a trivial matter, and this essentially was the start of our attempt to submit our petition and request. This occurred more than two weeks prior to the deadline date.

Given that we are the only party attempting to provide oversight in this matter, the fact that this our first such attempt to do so, and the fact that we substantially complied with the timeliness requirement, we request that you allow the petition and request for hearing to proceed.

### **III. STANDING**

NRC and SCE documents opposing oversight by COPS argue that COPS does not have standing to do so. Section 189(a) of the Atomic Energy Act of 1954, as amended (“AEA”), states that

“the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding.”<sup>2</sup>

The Commission's regulations are further defined by 10 C.F.R. § 2.309(d) "Standing." Clause (1)(i) provides the requirement that the petitioner must provide "The name, address and telephone number of the requestor or petitioner." This would mean that the petition cannot be submitted anonymously. This provision has been explicitly complied with in the petition document submitted. In our initial submission, we included the name and address of Raymond Lutz.

Clause (1)(ii, iii, and iv) requires that the petitioner provide "The nature of the requestor's / petitioner's right under the Act to be made a party to the proceeding;" and "The nature and extent of the requestor's / petitioner's property, financial or other interest in the proceeding;" and "The possible effect of any decision or order that may be issued in the proceeding on the requestor's / petitioner's interest."

#### **1. Standing based on financial interest as a ratepayer.**

Petitioner is a ratepayer of San Diego Gas and Electric company, and as such has a financial interest in the effective operation of SONGS. Submissions by SCE and NRC staff objecting to the petition and hearing did not provide any substantive objection to participation based on this fact, but simply said that "Economic interests of ratepayers, however, are not within the zone of interests protected by the AEA, and cannot support Mr. Lutz's standing." But this assumes that the safety concerns which are under the purview of the AEA have no economic repercussions. The Atomic Energy Act of 1954 does not say "non-economic interests" and we reject the notion that our interest in safety concerns is of no relevance, and that we have no interest, just because our interest may in one dimension boil down to dollars and cents.

SONGS recently replaced the steam generators for a sum of approximately \$670 million and has incurred additional costs of at least \$300 million during the time that the plant has been disabled.

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<sup>2</sup> 42 U.S.C. § 2239(a)(1)(A).

These costs are currently the responsibility of the ratepayer, and therefore COPS members who are SDG&E or SCE ratepayers. The oversight that we are attempting to provide in this process may allow COPS and its members to avoid additional outrageous costs and the associated safety risks.

Also, the nuclear disaster at Fukushima, Japan, after the earthquake of March 11, 2011, and the subsequent tsunami, has brought a new level of concern about the nuclear facilities in the United States. The failure in the design of the steam generators in the recent shutdown of SONGS on January 31, 2012, was not due to any earthquake, tsunami, or any other unexpected event. Instead, it was apparently due only to human error and insufficient computer modeling and mock-up testing. It is the hope of COPS that by providing additional oversight in the current LAR, similar costly mistakes will not be made. Therefore, COPS has a specific and concrete interest in the safe operation of this plant based on this measure alone.

## **2. Standing based on financial interest as a taxpayer.**

The Price-Anderson Act<sup>3</sup>, which became law on September 2, 1957, was designed to ensure that adequate funds would be available to satisfy liability claims of members of the public for personal injury and property damage in the event of a nuclear accident involving a commercial nuclear power plant. The legislation helped encourage private investment in commercial nuclear power by placing a cap, or ceiling on the total amount of liability each holder of a nuclear power plant licensee faced in the event of an accident. Over the years, the "limit of liability" for a nuclear accident has increased the insurance pool to more than \$12 billion.

Unfortunately, the Price-Anderson act is insufficient if any major nuclear accident should occur. According to a recent report<sup>4</sup> by Reuters, "The government panel has estimated that cleaning up the Fukushima disaster and compensating its victims could cost as much as 20 trillion yen (\$257 billion)." Thus, the insurance coverage provided by the Price-Anderson Act would cover only 4.6% of this cost.

<sup>3</sup> <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/funds-fs.html>

<sup>4</sup> <http://www.reuters.com/article/2011/12/06/japan-nuclear-cost-idUSL3E7N60MR20111206>

Therefore, the government, and by extension, the taxpayer, would be liable for the rest. Therefore, COPS and its members who are taxpayers have a financial interest in the effective and safe operation of SONGS, and the opportunity to intervene in this manner is instrumental in keeping the plant safe, and therefore avoiding a similar disaster, and in turn, the costs associated with such devastation.

### **3. Standing based on physical proximity**

SCE and NRC staff asserts that petitioner does not have standing because the member cited in the petition (Raymond Lutz) lives too far away from the plant to have any concern about it. The statements of these parties suggest that anyone who lives outside a 40 or 50 mile perimeter automatically has no standing.

Raymond Lutz, the party cited in the original filing, lives 53.8 statute miles from the plant and 46.8 nautical miles from the plant. Thus, since the distance to the plant is a concern due to the likely travel of radiation in the atmosphere, the use of nautical miles, which is the standard unit of measure used in meteorology, is the correct unit of measurement. Therefore, the petitioner does comply with this arbitrary threshold.

However, it can be easily argued that this threshold is arbitrary and insufficient, given our recent understanding of the potential impacts of a nuclear disaster like the one at Fukushima. A study entitled "Worldwide health effects of the Fukushima Daiichi nuclear accident" by Stanford University Scientists<sup>5</sup> concluded that radiation from the Fukushima nuclear plant may cause as many as 1,300 cancer deaths globally and 2,500 cases of cancer. They said cancer cases may have been at least ten times greater if the radiation hadn't mostly fallen into the sea. They also modeled a similar accident at California's Diablo Canyon nuclear power plant. Identical emissions from a hypothetical accident at that plant would be 25 percent deadlier than the Fukushima accident, because the prevailing winds in Japan pushed the radiation off shore. By extension, because of the higher population density

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5 <http://www.stanford.edu/group/efmh/jacobson/TenHoeveEES12.pdf>

surrounding SONGS than at the Diablo Canyon location, the impact of a disaster at SONGS would likely be even worse.

According to the Stanford simulation of the Diablo Canyon release, "radioactivity was trapped by an inversion as it was slowly transported along the California coastline over populated regions of Los Angeles and San Diego before it was transported offshore." Thus, in their simulation, the radiation plume traveled more than 225 miles. To assert that someone outside a 50 mile radius has no interest in a disaster at SONGS is absolutely ridiculous, and based on wishful thinking and not scientific reasoning.

Furthermore, a list of other members of COPS is provided in subsection (5) below to provide undeniable interest in this proceeding.

#### **4. Traditional Standing**

SCE and NRC cite a variety of cases to assert that a petitioner must be injured to be able to intervene in a license amendment, and that the injury must be "concrete and particularized" not "conjectural" or "hypothetical". However, this position violates the general concept of oversight by the public to avoid waste, fraud and abuse, which is always proactive and worthless if it only comes after the injury occurs. We want to avoid a nuclear accident, not just be able to say "I told you so" after oversight is denied and an an accident then occurs.

According to the NRC website, "The U.S. Nuclear Regulatory Commission (NRC) was created as an independent agency by Congress in 1974 to ensure the safe use of radioactive materials for beneficial civilian purposes while protecting people and the environment."<sup>6</sup> The concept of "protection" implies that the actions of the NRC are to avoid hypothetical and conjectural accidents at nuclear power plants. It makes no sense to wait for accidents to occur before anyone can provide oversight to a proposed license amendment. In fact, the various safety systems hypothesize certain accidents are

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<sup>6</sup> <http://www.nrc.gov/about-nrc.html>

possible, such as earthquakes, tsunamis, and indeed, human errors.

COPS has specific and concrete objections to parts of the license amendment and is not expressing in this petition to intervene and request for a hearing just a "general objection to the facility."<sup>7</sup>

### **5. Standing as an Organization**

Since a number of objections have been raised about the standing, proximity to the plant, and other issues, we submit the following additional list of members who live close to the plant and have expressed a willingness to authorize COPS to request a hearing on their behalf. These persons can testify at the hearing regarding their authorization of COPS to represent them in this matter.

NAME	ADDRESS	PHONE	PROXIMITY
Raymond Lutz	1010 Old Chase Ave El Cajon, CA 92020	619-447-3246	46.8 Nautical Miles
Carol Jahnkow	412 La Veta Ave Encinitas, CA 92024	760-390-0775	25.7 Statute Miles
Marcia Patt	3511 Park Blvd #3 San Diego, CA 92103	619-241-1117	49.3 Statute Miles
Don Leichtling	3703 Ray St., San Diego, CA 92014	619-296-9928	49.6 Statute Miles
Martha Sullivan	2354 Carmel Valley Rd. Del Mar, CA 92014	858-945-6273	34.5 Statute Miles
Margaret Budd	5009 San Joaquin Dr. San Diego, CA 92109	858-272-6565	42.6 Statute Miles

### **IV. CONTENTION ADMISSIBILITY**

The contentions raised are generally not legal issues, but are issues raised of a factual nature. Based on the submission by SCE, it is clear that it is your custom to see explicit numbered statements

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<sup>7</sup> Page 8 of SCE submission of November 13, 2012.



that address each the requirements enumerated in 10 C.F.R. § 2.309(f)(1), namely (paraphrased):

1. a specific statement of the fact to be raised.
2. brief explanation of the basis for the contention.
3. demonstrate that it is within the scope of the proceeding.
4. demonstrate that the issue raised is material to the findings the NRC must make to support that action involved in the proceeding.
5. concise statement of alleged facts, expert opinions, sources and documents which support the contention, on which the petitioner intends to rely at hearing
6. provide sufficient information to show that a genuine dispute exists with regard to the material issue of law or fact.<sup>8</sup>

We believe that we have met this criteria, although perhaps not placed in the format traditionally used by your process. Therefore, to insure that it is clear that our petition is in compliance with these requests, and simultaneously to address any specific objections by the NRC staff or SCE submissions, COPS submits the following, with each requirement identified explicitly.

### **CONTENTION 1**

See the supplied text for 1. STATEMENT, 2. BASIS, and 5. ALLEGED FACTS, EXPERT OPINIONS, SOURCE AND DOCUMENTS, and 6. A DISPUTE EXISTS. We add the following to insure there is no question that all the elements suggested to be provided are included.

### **3. SCOPE**

This contention is with regard to the overall intention to modify the technical specifications document, which is what the proceeding is about. Therefore this contention is within the scope of the proceeding.

### **4. ISSUE IS MATERIAL TO FINDINGS OF THE NRC**

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<sup>8</sup> 10 C.F.R. § 2.309(f)(1)(i)-(vi).

This contention raises a significant issue with regard to a plethora of changes to the technical specifications and moving those specifications to a companion document, and if our contention is successful, the NRC must find that moving these specifications completely out of the technical specifications must not occur.

**RESPONSE TO SCE AND NRC STAFF ASSERTIONS THAT THE CONTENTION SHOULD NOT BE ADMITTED.**

COPS is aware that the LAR adopts TSTF-425-A, Rev. 3, "Relocate Surveillance Frequencies to Licensee Control - RITSTF Initiative 5b."<sup>9</sup> Also, that this change affects multiple sections in the SONGS Technical Specifications, and relocates certain surveillance frequencies specified in the CTS to a licensee-controlled document as part of a Surveillance Frequency Control Program ("SFCP").<sup>10</sup>

COPS could list all the dozens and perhaps hundreds of specifications in the technical specifications that are being "relocated" and therefore eliminated from the actual technical specifications document, and instead included in a "licensee-controlled document." COPS understands that these surveillance frequencies can then be modified per the SFCP. For sake of brevity in this document, COPS elected to refer to all of those changes at one time, by reference. Therefore, there is no lack of reference to the proposed changes just because they are not exhaustively enumerated here.

The key issue for COPS is that these specifications will no longer be subject to review according to the license amendment process, including notification of the public in the *Federal Register*, an opportunity for the public to comment on those changes, and an opportunity to petition to intervene and request a hearing, such as COPS is attempting to do at this time.

COPS has reviewed many public bodies and organizations and is an expert in the need for the public to be able to provide oversight, the beneficial effects of such oversight, and the likely outcome if such opportunity to provide oversight is unavailable.

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<sup>9</sup> LAR, Enclosure 3, at 2.

<sup>10</sup> *Id.*

NRC Regulation 10 C.F.R. § 2.309 "Hearing requests, petitions to intervene, requirements for standing, and contentions" provides an important opportunity to provide oversight by the public. Fundamental to this oversight, is the existence of a proceeding. The first sentence of this regulation says: "(a) General requirements. Any person whose interest may be affected by a proceeding and who desires to participate as a party must file a written request for hearing ...". Indeed, NRC Staff and the SCE attorneys will admit they will object to a person requesting a hearing under 10 C.F.R. § 2.309 if there is no proceeding.

The License Amendment Request (LAR) results in a proceeding, it will be published in the *Federal Register* and then the public ("Any person") can make comments on the proceeding and attempt to intervene and request a hearing.

The way the technical specifications are currently written, changing a surveillance frequency will require a license amendment. If these surveillance frequencies are relocated to the licensee-controlled document, they can be changed without an LAR, without notice in the *Federal Register* and without any opportunity for the public to make comments, intervene, or request a hearing. This is what the term "free rein" was intended to describe in our original document.

The procedures described under 10 C.F.R. § 2.309 are essential to maintain oversight by the public, and are a sacred right of the public, implied by this regulation to continue to be available at the same level as it is today. However, with the changes to relocate the surveillance frequencies to the licensee-controlled document, the public will lose this opportunity. Therefore, a distinct dispute exists. COPS objects to the public losing the opportunity to provide oversight.

This contention is not outside the scope of this proceeding. The proceeding primarily concerned with the relocation of these surveillance frequency specifications to a licensee-controlled document. We object to this change for the reasons described. COPS, representing the public in this matter, does not want to see the opportunity for the public to provide oversight to be reduced. The current proposal does

indeed massively reduce oversight. This should be a concern for the AEA because the opportunity to provide oversight by the public is a valuable tool to help to expose safety concerns.

This issue is material to this proceeding. It is supported, and it raises a genuine dispute. Therefore, the AEA must allow it to proceed.

## **CONTENTION 2**

See the supplied text for 1. STATEMENT, 2. BASIS, and 5. ALLEGED FACTS, EXPERT OPINIONS, SOURCE AND DOCUMENTS, and 6. A DISPUTE EXISTS. We add the following to insure there is no question that all the elements suggested to be provided are included.

### **3. WITHIN SCOPE**

All of these mistakes or problems are with regard to the technical specifications of the license amendment request and therefore are within scope of this proceeding. The NRC Staff has asserted that no comment can be made about the technical specifications that was not proposed to be changed by the licensee. We assert, on the contrary, that it is appropriate in our effort to provide oversight to comment on any inconsistency in the technical specifications, particularly if a change was made in one section and another section was not changed and must be changed to remain consistent with other changes.

In addition, we regard our ability to provide oversight to any license amendment to include any portion of the license we wish to contend, not just the portions that have been proposed to be changed. Were this just a matter of law, the principle of respecting the precedent of settled law, *stare decisis*, would be an appropriate approach, and, if that were in fact the approach taken here, since the license was previously approved, there is no need to process it again.

It is the case, however, that this is not just a matter of law, but also a matter of physical sciences, engineering, and technology. Those fields do not rely on the principle of *stare decisis*, since at any time any scientific theory may be overturned by new information. Indeed, in recent years, the

facts surrounding the dangers related to nuclear facilities have changed, most particularly with the March 11, 2011 Fukushima Daiichi accident, the recent outage at SONGS due to human error, and the related higher risks associated with earthquakes, tsunamis and other extreme events. If this new information is not included in the review of nuclear facilities, then there will be no learning by the oversight provided by the regulatory agencies and by the public.

We reserve the right, therefore, to content any portion of the license, but we have limited it to valid safety concerns, and no general objections to the operation of the plant.

#### **4. MATERIAL TO THE FINDINGS**

All these contentions A-E are factual issues with regard to the text of the technical specifications, and therefore are material to the findings of the NRC regarding these changes.

#### **RESPONSE TO SCE AND NRC STAFF ASSERTIONS THAT THE CONTENTION SHOULD NOT BE ADMITTED.**

##### **ISSUE A - Steam Generator Level**

Throughout the technical specifications, there are a number of places where the Steam Generator level is changed from 25% to 50%. Below, a few of these cases are enumerated.

Attachment 1 Vol 7 (Chapter 3.4 Reactor Coolant System (RCS)) - ML11251A100:

\* page 124, changes bracketed value from ">25%" to ">= 50% (wide range)"

The purpose of this LCO is to require both RCS loops to be available for heat removal, thus providing redundancy. The LCO requires both loops to be OPERABLE with the intent of requiring both SGs to be capable ([>25%] water level) of transferring heat from the reactor coolant at a controlled rate. Forced reactor coolant flow is the required way to transport heat, although natural circulation flow provides adequate removal. A minimum of one running RCP meets the LCO requirement for one loop in operation.

\* page 128, changes bracketed value from ">=25%" to ">= 50% (wide range)", and delete the surveillance frequency specs ("every 12 hours" and "The 12 hour interval has been shown by operating

practice to be sufficient to regularly assess degradation and verify operation within the safety analyses assumptions.")

#### SR 3.4.5.2

This SR requires verification ~~every 12 hours~~ that the secondary side water level in each SG is  $\geq$  [25]%. An adequate SG water level is required in order to have a heat sink for removal of the core decay heat from the reactor coolant. ~~The 12 hour interval has been shown by operating practice to be sufficient to regularly assess degradation and verify operation within the safety analyses assumptions.~~

\* page 155 -- Changes 25% to 50%.

SR 3.4.6.2 Verify secondary side water level in required SG(s) is  $\geq$  [25]%

\* page 162 -- Same change as on page 128, but referencing SR 3.4.6.2

\* page 190 -- Change from  $\geq$  25% to  $>50\%$

LCO 3.4.7 One shutdown cooling (SDC) train shall be OPERABLE and in operation and either:

- a. One additional SDC train shall be OPERABLE or
- b. The secondary side water level of each steam generator (SG) shall be  $\geq$  [25%].

\* page 196 -- Change from  $\geq$  25% to  $>50\%$  (wide range)

The purpose of this LCO is to require at least one of the SDC trains be OPERABLE and in operation with the other SDC train OPERABLE or secondary side water level of each SG shall be  $\geq$  [25]%. One SDC train provides sufficient forced circulation to perform the safety functions of the reactor coolant under these conditions. The second SDC train is normally maintained OPERABLE as a backup to the operating SDC train to provide redundant paths for decay heat removal. However, if the standby SDC train is not OPERABLE, a sufficient alternate method to provide redundant paths for decay heat removal is two SGs with their secondary side water levels  $\geq$  [25%]. Should the operating SDC train fail, the SGs could be used to remove the decay heat via natural circulation.

\* page 198 -- Change  $<25\%$  to  $\leq 50\%$  (wide range)

#### A.1, A.2, B.1 and B.2

If one SDC train is OPERABLE and any required SGs has secondary side water levels  $<$  [25%], or one required SDC train is inoperable, redundancy for heat removal is lost. Action must be initiated immediately to restore a second SDC train to OPERABLE status or to restore the water level in the required SGs. Either Required Action will restore redundant decay heat removal paths. The immediate Completion Times reflect the importance of maintaining the availability of two paths for decay heat removal.

\* page 200 -- Same change as on page 128, but referencing SR 3.4.7.2

\* page 200 -- Change <25% to <=50% (wide range) and remove surveillance specification.

#### SR 3.4.7.3

Verification that each required SDC train is OPERABLE ensures that redundant paths for decay heat removal are available. The requirement also ensures that the additional train can be placed in operation, if needed, to maintain decay heat removal and reactor coolant circulation. Verification is performed by verifying proper breaker alignment and power available to each required pump. Alternatively, verification that a pump is in operation also verifies proper breaker alignment and power availability. The Surveillance is required to be performed when the LCO requirement is being met by one of two SDC trains, e.g., both SGs have < [25]% water level. ~~The Frequency of 7-days is considered reasonable in view of other administrative controls available~~

\* Page 138,143,179 - delete "wide range", but spec is >50%

Therefore, throughout this document, steam generators must have water level  $\geq 50\%$  to be operable. This is repeated in at least nine places, as shown above. Yet on page 99, the spec is reduced from 25% to 20%. COPS believes this is simply a typographical error, where the figure "20%" should be "50%" so that it matches the other changes from 25% to 50%.

COPS also notes that  $\geq$  vs.  $>$  is sometimes used interchangeably and the additional qualifier ("wide range") is unexplained.

The SCE objection to this contention states that "20% is part of the current licensing basis" but if that were the case, and if 20% is the correct value, then all the other places where it is changed to 50% must be incorrect. This is an inconsistency and it must be resolved and not disregarded as a contention without merit. It is not required for COPS to support why the trip level should be 20%, 25%, or 50%, but certainly, these technical specifications should be internally consistent. Because there are at least nine places where the specification was changed from 25% to 50%, it seems strange that SCE would argue that there is still a third value, 20%.

COPS continues to maintain that this should be changed from 20% to 50%.

## ISSUE B. Pressure Boundary Leakage

**SCOPE:** Since we are considering changes to the technical specifications to make them consistent with surveillance frequency specifications, the definition of LEAKAGE is important because it is something that must be monitored according to the surveillance frequency specifications. Therefore, the definition of this term is essential.

Also, recent events regarding steam generator failures at SONGS makes the LEAKAGE specification and the surveillance frequencies of LEAKAGE a topic of intense concern.

According to NEI 97-06,

### 2.1 Structural Integrity Performance Criterion

The structural integrity performance criterion is the following:

*All in-service steam generator tubes shall retain structural integrity over the full range of normal operating conditions, (including startup, operation in the power range, hot standby, cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.*

The structural performance criterion is based on ensuring that there is reasonable assurance that a steam generator tube will not burst during normal operation or postulated accident conditions. Section 3.3 of this guideline establishes the essential elements to meet this performance criterion.

NEI 97-06 further references "EPRI Steam Generator Integrity Assessment Guidelines"

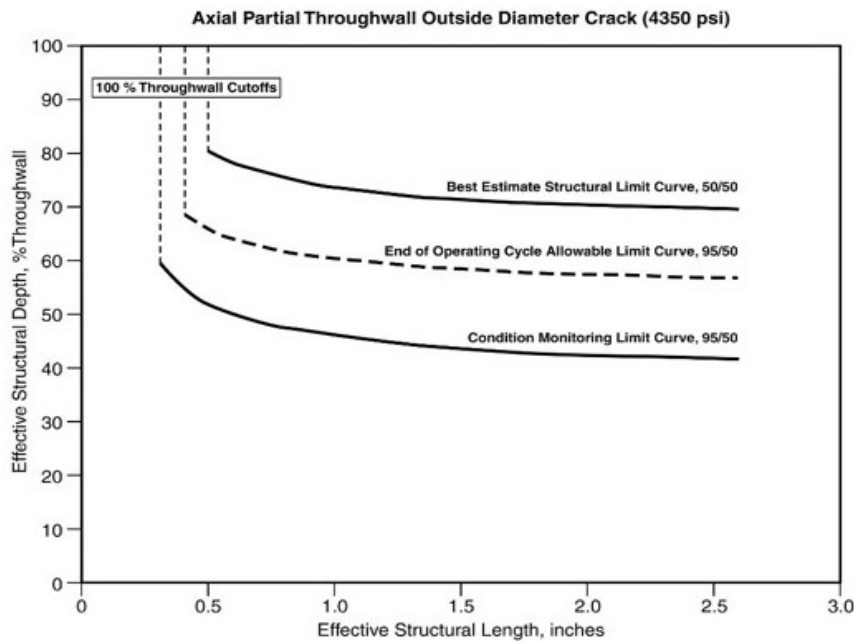
The *Steam Generator Degradation Specific Management Flaw Handbook*, Revision 1<sup>11</sup>, issued

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<sup>11</sup> <http://mydocs.epri.com/docs/CorporateDocuments/Newsletters/NUC/2010-09/09c.html>



in December 2009, compiles burst test data, mathematical degradation models, and defined burst pressure equations to guide users in assessing specific modes of degradation relative to current industry experience. Degradation mechanisms addressed include fatigue, stress corrosion cracking, denting, fretting, wear, and intergranular attack. The handbook is used for developing flawed tubing structural limits, such as those shown in the accompanying figure, which are essential in informing integrity assessments.



Throughout these documents, 100% wear of the tube (i.e. a leak) means that the tube no longer has structural integrity. In the diagram above, in no case is 100% structural depth wear considered structurally sound. The requirement that "All in-service steam generator tubes shall retain structural integrity over the full range of normal operating conditions"<sup>12</sup> also means that there can be no leakage due to degradation mechanisms, such as "fatigue, stress corrosion cracking, denting, fretting, wear, and intergranular attack"<sup>13</sup>

Thus the "operational leakage performance criterion"

12 NEI 97-06

13 Steam Generator Degradation Specific Management Flaw Handbook

*The RCS operational primary-to-secondary leakage through any one steam generator shall be limited to 150 gallons per day.*<sup>14</sup>

Cannot also mean that leakage is occurring from degradation of steam generator tubes, because,

"All in-service steam generator tubes shall retain structural integrity over the full range of normal operating conditions"<sup>15</sup>

Therefore, the 150 gal/day allowed leakage must be due to non-steam generator tube leakage.

This needs to become more clear in the operating license, because the NRC and SCE reported that the recent steam generator failures were within the guidelines for primary-to-secondary leakage rate. But since the leakage was due to tube degradation, the tubes did not have structural integrity, and therefore, the leakage allowance does not apply.

FURTHERMORE, referring to Page 512 of attachment 1 volume 7

The operational LEAKAGE performance criterion provides an observable indication of SG tube conditions during plant operation. The limit on operational LEAKAGE is contained in LCO 3.4.13, "RCS Operational LEAKAGE," and limits primary to secondary LEAKAGE through any one SG to 150 gallons per day. This limit is based on the assumption that a single crack leaking this amount would not propagate to a SGTR under the stress conditions of a LOCA or a main steam line break. If this amount of LEAKAGE is due to more than one crack, the cracks are very small, and the above assumption is conservative.

COPS asserts that the assumption made here is in violation to NEI 97-06, and particularly with the design-based tube failures demonstrated in the SONGS Steam Generator failures, is incorrect and unsafe. In fact, the failure on January 31, 2012 was about 75 gallons per day at first, but increased 40% within an hour, and was later measured, reported by the Augmented Inspection Team Report to leak at a rate of 104 gal/day rate. Therefore, as demonstrated by this failure, a single crack significantly less than 150 gal/day rate would have propagated to a SGTR, even without stress conditions of a LOCA or main steam line break. The assumption provided in this paragraph IS NOT CONSERVATIVE.

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14 NEI 97-06 page 8, section 2.3

15 NEI 97-06 page 7, section 2.1

COPS recommends that the LEAKAGE rate criteria be changes to NO LEAKAGE throughout the operating license, for any unidentified leak or identified leaks that are due to tube degradation. The only LEAKAGE allowed should be due to identified seals, gaskets, or welds that are not related to steam generator tube integrity.

### **ISSUE C. Atmospheric Dump Valve**

COPS understands that the number of Atmospheric Dump Values installed at SONGS is only one per steam generator. However, the technical specifications state that two shall be operable to provide redundancy in an emergency. SCE proposes that the license requirement be reduced from two ADVs to only one ADV per steam generator. This is not just a change to the surveillance frequency specification but amounts to a major change in the required redundancy to avoid an accident which might occur if the one ADV were inoperable.

This contention is regarding a change proposed to the technical specification and therefore is not out of scope. It represents a valid concern of the plant that has been allowed to go into operation in violation of this operating license criteria.

COPS suggests that the requirement remain in the license and the operator install a redundant ADV on each steam generator.

### **ISSUE D. EXCLUSION AREA**

COPS will continue to assert that when a license amendment is processed, the public has the right to contend anything in the license, particularly in light of new information that has come to our attention since the license was first approved. Events such as the Fukushima Daiichi accident and the recent shutdown of SONGS due to human-caused design errors bring a new focus on elements of the license that should be improved due to these safety concerns. Therefore, the definition of the exclusion area and the required infrastructure to insure the safety of the public within this area is insufficient.

This relates to the current license under examination and has to do with the safety of the plant in the event of an accident.

COPS continues to assert that the exclusion area must have signage to inform the public that they are entering the exclusion area and that dosage exposure to radiation may be higher within that area and may exceed the dosage limits imposed by law for the public. Also, calculations of exposure to the public of releases, such as occurred on January 31, 2012, must be reviewed to confirm that the assumption that persons may be within the exclusion area for at least the first two hours of any accident or event.

### **ISSUE E: STEAM GENERATOR TUBE PLUGGING**

The SCE objection to this poor sentence makes even less sense than the original bad paragraph. SCE asserts that "if an evaluation shows that the tube integrity is maintained until the next refueling outage or tube inspection, then the plugging can wait until that time."<sup>16</sup>

COPS submits the following logical argument.

1. Any tube satisfying the repair criteria is removed from service by plugging. This is expressed in the first sentence.
2. Therefore, all tubes that satisfy the repair criteria are plugged.
3. The second sentence expresses a situation that will never occur. Since all tubes that satisfy the repair criteria are plugged (Item 1 above) then "If a tube was determined to satisfy the repair criteria was not plugged, it may still have tube integrity" can never happen.

This error in the text apparently was introduced in the editing process. The original paragraph was

During an SG inspection, any inspected tube that satisfies the Steam Generator Program repair criteria is [repaired or] removed from service by plugging. If a tube was determined to satisfy the repair criteria but was not plugged [or repaired], the tube may still have tube integrity.

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<sup>16</sup> SCE answer dated November 13, 2012, page 38

where the words "or repaired" were included. Even then, the paragraph does not make logical sense because the first sentence makes the second sentence impossible to fulfill.

COPS remains concerned about the poor quality of the technical specifications if anyone will argue that this paragraph makes any sense. And if there is a way to both satisfy the repair criteria and not plug the tube, it should be described rather than let it remain a matter of black magic.

**CONTENTION 3 - LAR MUST NOT BE APPLIED TO PARTIAL POWER OPERATION.**

COPS maintains that this is a valid concern to the community and many members and residents have raised this exact concern, and it is prudent and appropriate to object to the use of this LAR to run the plant at reduced-power level and to set those concerns to rest.

**SCOPE**

Contention 3 does not raise issues within the LAR request, but it does raise issues regarding the LAR as a whole. It is a contention about how the LAR is processed with respect to the potential need for a subsequent LAR to allow operation of the plant at a "partial power level", which is a MODE that is not defined in the license. It is essential that this issue be raised when we have an opportunity to provide oversight of the SONGS license and any Petition to Intervene and Request for a Hearing would be incomplete without it.

**SUMMARY**

COPS has standing, submitted it substantially in a timely manner, and has raised valid contentions, all of which will assist the NRC in their findings on the matter and contribute to creation of a complete record on the matter, and therefore, the petition to intervene and request for a hearing should be accepted.