

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's
Own Motion into the Rates, Operations, Practices,
Services and Facilities of Southern California Edison
Company and San Diego Gas and Electric Company
Associated with the San Onofre Nuclear Generating
Station Units 2 and 3.

Investigation 12-10-013
(Filed October 25, 2012
Irvine, CA)

And Related Matters.

Application 13-01-016
Application 13-03-005
Application 13-03-013
Application 13-03-014

**OPENING BRIEF OF COALITION TO DECOMMISSION SAN
ONOFRE IN PHASE 1**

June 28, 2013

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INTRODUCTION: The Coalition to Decommission San Onofre (CDSO) is a grassroots project of Citizens Oversight, Inc., a 501(c)(3) public benefit corporation which encourages **increased engagement by the public in the operation of their local, state and federal government to reduce waste, fraud and abuse** by public officials. Citizens Oversight dba Coalition to Decommission San Onofre is unique in its localized, on-the-ground volunteer membership which affords ready consultation with local elected officials and community members regarding the varied impacts of the San Onofre Nuclear Power Plant, as well as the implications of this Investigation. Citizens Oversight is based in San Diego and Orange Counties and we have no office in the S.F. Bay Area; therefore effective participation in the CPUC's decision-making process requires additional time, travel and communications expenses. We lack the ratepayer-funded facilities and resources of Southern California Edison, San Diego Gas & Electric and the Commission and we are brand new Intervenors at the Commission.¹ Our communities in Orange and San Diego Counties most impacted by the San Onofre Nuclear Power Plant and its admittedly defective nuclear reactors depend upon us – *unpaid community members who also have to tend to our businesses/jobs, kids, elderly parents* – to represent them in this proceeding as well as in the U.S. Nuclear Regulatory Commission's (NRC) decision-making process for the operation, and now decommissioning, of this defective nuclear power plant. Our neighbors and the media increasingly call upon us with questions about San Onofre, and a large amount of our time is demanded by essential briefings of our elected representatives at the local, state and Federal levels.

1 While one of CDSO's volunteer organizers, Martha Sullivan, worked at the Commission, she has not been actively engaged in Commission proceedings since 2001. During her tenure at the Commission, she was not an advocate and therefore was not practiced in the day-to-day filing requirements for parties in Commission proceedings.

In light of Southern California Edison's (SCE) announcement on June 7, 2013, that it will permanently shut down and decommission Units 2 and 3 of the San Onofre Nuclear Generating Station, the Coalition to Decommission San Onofre (CDSO) urges the Commission to revisit the schedule for this Investigation and will be filing a Reply in support of the Division of Ratepayer Advocates' recent "Motion to Amend the Scoping Memo and for Summary Disposition to Immediately Remove Specified SONGS Units 2 and 3 Revenue Requirement from Rates".

As repeatedly demonstrated during the Evidentiary Hearings last month in Phase 1 of this Investigation, the reasonableness of SCE's Steam Generator Replacement Project (SGRP) is at the core of this Investigation and all expenditures related to the extended outage and shutdown in 2012-13 of Units 2 and 3 flow from SCE's deliberate misrepresentation of that project to, and avoidance of scrutiny by, the U.S. Nuclear Regulatory Commission, the Commission and to the public. There is no longer any need to consider repair or replacement costs in Phase 3, and the focus should be squarely on relieving SCE and SDG&E ratepayers of the financial burden of SCE's misbegotten Steam Generator Replacement Project and its cascading consequences.

ALJ Darling ruled during these Evidentiary Hearings:

"The incremental steam generator replacement costs that was booked in 2012, in many -- in most cases, were related to the restoration of Unit 2, in particular, to be ready and able to restart." (Transcript at pp. 278-279)

ALJ Darling stated during the Evidentiary Hearings: *"The Phase Three covers everything from the steam generator replacement project's commencement forward, including the future of the plant."* (Transcript at p. 752)

If the present phasing of this Investigation is retained, the Commission and the Parties will necessarily have to double back and re-examine costs in 2012 (Phase 1) and reductions to rate base and 2012 revenue requirement (Phase 2). For example, as testified by SCE Witness Perez, the reason to replace the High Pressure Steam Turbines in Units 2 and 3 was the increase in steam pressure designed into the Replacement Steam Generators (at Transcript pp. 514-15). The expenditures associated with the High Pressure Steam Turbine Replacement capital projects must also be subject to reasonableness review, along w/ the Steam Generator Replacement

Project costs which precipitated them. Another example is the new nitrogen radiation detection system on the main steam lines referenced at Transcript pp. 645-47.

OVERARCHING RECOMMENDATION: The only costs in 2012 associated with the San Onofre Nuclear Generating Station that can reasonably be allocated to ratepayers are those required to maintain the safety-related components of the plant, as defined by the U.S. Nuclear Regulatory Commission (NRC.) At Transcript p. 390, SCE Witness Perez:

Q You state safety related is defined by the NRC as limited to identifying those systems, structures and components, and procedures and processes that are absolutely necessary in emergency, non-routine conditions to safely shut down the plant and maintain it in a safe shutdown condition, correct?

A Correct.

- ***The Commission should order SCE to identify the NRC-defined “systems, structures and components, and procedures and processes that are absolutely necessary in emergency, non-routine conditions to safely shut down the plant and maintain it in a safe shutdown condition” and costs associated therewith, for finalization by Commission order subsequent to a publicly-noticed workshop facilitated by the Energy Division.***
- All other costs, including the root cause analysis, refueling of Unit 2, efforts to restart Unit 2 and defueling costs for Unit 3, among others, should be refunded to the ratepayer.
- ***This Recommendation by CDSO is supported by Findings 1-6 which follow.***

FINDINGS

1. Move of fuel back into Unit 2 was imprudent.

SCE’s moving fuel from the fuel pool back into the Unit 2 reactor as originally scheduled, was imprudent. This action occurred after the January 31, 2012 emergency shutdown of Unit 3 due to a leak in the Unit 3 steam generators, which are of identical design those of Unit 2, and it occurred after Unit 2 steam generator inspections revealed a startling number of indications of unusual and unexpected wear.

If “Safety First” truly was SCE’s goal for its operation of San Onofre, as it repeatedly stated in public, then the prudent course would have been NOT to refuel Unit 2 subsequent to a leak of radioactive steam from its twin, Unit 3 with Replacement Steam Generators of the same design, UNTIL the cause of that leak was determined and Unit 2 was conclusively made safe for refueling.

Apparently, there was almost no consideration given to safety or costs of various alternative actions as SCE continued to plunge ahead with an effort to restart Unit 2. Per Exhibit SCE-10, Timeline:

- 1/31/12: U3 leak identified
- 2/5/12: U2 steam generator retainer bar problem identified
- [2/8/12]: Root cause evaluation assigned to SCE team (at Transcript pp. 457-458); Completed 4/23/12
- [2/25-]3/1/12: U2 fuel move to core from fuel pool completed [NOTE: Per SCE Witness Palmisano at Transcript p. 764, duration is typically 7 days, Timeline only shows completion on 3/1, a month after the 1/31 emergency shutdown.]
- 3/4/12: U2 Refueling Outage (RFO) originally scheduled to end (Return to Service) ... delayed monthly throughout 2012.
- Per SCE Witness Palmisano at Transcript p. 766: *“There was no discussion that I’m aware of from deviating with the planned outage schedule for Unit 2 at this point.”*
- At Transcript p. 374, SCE Witness Perez: *“So in that scenario, if the fuel is not used, then we would put it into the pool and then eventually dry storage. And that would be a ratepayer incurred cost.”*

It is difficult to understand why SCE would not engage in any discussions related to the planned outage schedule, and without such discussions, their actions are unreasonable. Witnesses provided in the evidentiary hearing were unaware of any planning by SCE to insure that the steps they were deciding to take were appropriate and reasonable.

2. Attempts to Restart Unit 2 Were Imprudent

SCE's pressing to restart Unit 2 while investigation of the cause of the radioactive steam leak is underway was imprudent and after 3/23/12, these actions were in direct conflict with commitments SCE made to the NRC. Per Exh. SCE-10,

Timeline:

- [2/8/12]: Root cause evaluation assigned to SCE team (at Transcript pp. 457-458)
- 3/13/12: U3 In-situ pressure test of 129 tubes. 8 tubes fail.
- 3/13/12: U2 Return to Service "schedule slip from 3/20 to 4/15 due to additional [Eddy Current Testing] ECT"
- 3/14/12: U2 Return to Service "schedule slip from 4/15 to 5/16"
- 3/19/12: NRC begins on-site Augmented Inspection Team
- **3/23/12:** SCE submits Steam Generator RTS Action Plan to NRC
 - *Per SCE Witness Palmisano at Transcript p. 909: "What we submitted under a letter from SCE to the NRC was basically the commitments we made that the NRC then solidified in a confirmatory action letter." And "It basically said **we would not restart Unit 3 -- or Unit 2 specifically until we understood the cause of Unit 3, took corrective actions to prevent it, et cetera.** The power level was subsequently determined over the next several months."*
- 3/27/12: Confirmatory Action Letter issued by NRC requires Root Cause Analysis to be completed and submitted to NRC for review, among other things.
- 3/27/12: U2 Return to Service "schedule slip from 5/16 to 6/1"
- **4/2/12: U2 Return to Service (RTS) "scheduled for 6/1/12"**
- 4/10/12: SCE Witness Palmisano testifies that Tube-to-Tube Wear in U2 discovered. Transcript pp. 852-853
- 4/23/12: "U2 first tube wear root cause analysis issued by SCE"
- **5/7/12: "U3 first tube wear root cause analysis issued by SCE"**
- 5/7/12: U2 Return to Service "schedule slip from 6/1 to 7/1"

- 6/7/12: U2 Return to Service “schedule slip from 7/1 to 8/17”
- 7/19/12: U2 Return to Service “schedule slip from 8/17 to 11/18”
- 8/23/12: U2 Return to Service “schedule slip from 11/18 to 12/2”
- **10/3/12: U2 Confirmatory Action Letter (CAL) response by SCE submitted to the NRC**
- U2 Return to Service “schedule slip from 12/2/12 to 2/3/13”

Note in this timeline that the Root Cause Analysis for Unit 3 was issued (completed) on May 7, 2012. For some reason, SCE felt it was justified to schedule a restart even when they had not completed the root cause analysis for Unit 3 and after March 23, 2012, not taken corrective actions to prevent such root cause from recurring, despite committing to the NRC that it would not do so. CDSO asserts any scheduling of Unit 2 restart prior to completion of the root cause analysis and corrective actions to prevent a recurrence and/or another emergency shutdown were taken, was imprudent. This occurred multiple times. Furthermore, additional tube plugging and securing which occurred in Unit 2 to proactively reduce the likelihood that fluid elastic instability and tube-to-tube wear would occur in areas where it occurred in Unit 3 was imprudent until it was decided to actually restart Unit 2, including NRC approval of the plan. SCE took the risk that their plans would be approved, and eventually decided the approval would be too difficult to obtain. Therefore, all these steps were imprudent.

3. **Split Shutdown Scenario Already Determined by the Commission to be Uneconomic**

All actions by SCE to restart Unit 2 after SCE decided in June 2012 to place Unit 3 in an indefinite defueled mode are unreasonable. This includes all engineering studies, applications and interaction with the NRC and other agencies, and all other related costs related to any and all attempts to restart one of the units with the understanding that both units would not be restarted.

Per Exhibit SCE-10’s Timeline, planning to put Unit 3 in “preservation mode”
(remaining for an indefinite period in the operational mode defined by the

NRC as “defueled”) began in June 2012, and “efforts to place the unit in preservation mode” began in July 2012. The removal of fuel from Unit 3 was publicly announced in August, 2012², to be completed in September 2012; Exhibit SCE-10’s Timeline states this defueling ultimately occurred between October 1 and 5, 2012.

In response to CDSO questioning, SCE Witness Palmisano stated that he, as the SCE Vice President directing the technical team working to define the future operation of Units 2 and 3, was unaware of any cost-effectiveness analysis in making decisions about how to proceed with Units 2 and 3 in 2012:

Q. Are you aware of any cost effectiveness analysis in Edison in that time frame [betw. 4-23 and October 1] regarding the decisions that you were making with regard to these units?

A. I was not aware of any analyses in that time frame. ...

A. ... The corporation is certainly looking at the long-term future, and I think under general rate case scenario was looking at different options and the cost effectiveness of different options for the SONGS units. I’m not directly involved. I’m aware that they’re doing that because I provide information to that process. (at Transcript pp. 771-774)

Q: ... in your decision-making plan, do you consider the costs of different options?

A: This decision making was around whether it was safe and appropriate to start up the Unit 2 reactor and power plant under the current license and tech specs with what we knew. So that’s not a cost evaluation. It’s a safety and a compliance evaluation....

Q: Was everything put on the table for your decision-making process, including cost?

A: With respect to Unit 2 and start up and filing the confirmatory action letter, in 2012 cost was not factored in, to my knowledge in the discussion that ... I was in.

Q: Who at Southern California Edison does consider cost with regard to ... [restart or long-term preservation]?

² <http://www.kpbs.org/news/2012/aug/27/san-onofre-preparing-empty-radioactive-fuel-one-re/> "San Onofre Preparing To Empty Radioactive Fuel From One Reactor" (2012-08-27)

A: The company has formed a team to evaluate SONGS' long-term future and look at different options and the costs of different options. Part of this is preparation for general rate case materials. So I'm aware that those teams are formed. I don't have specific names. (at Transcript pp. 949-953)

In the original Commission Decision (D.05-12-040) on the Steam Generator Replacement Project (SGRP), the Commission agreed with SCE's argument that with no SGRP, it would not be economically viable to run just one of the two San Onofre units if the other reached its plugging limit. In this original approval of the project, the Commission found that even if one unit could be run at 100% of its licensed thermal output, it was still not economically feasible to run just one unit. The same situation existed in 2012, as soon as SCE decided that Unit 3 was too risky to restart.

Based upon the rationale advocated by SCE and adopted by the Commission in D.05-12-040 (Finding of Fact 153) regarding the economic operation of SONGS, it is reasonable to conclude that if one of the two San Onofre units cannot be run due to design deficiencies and the plant can only potentially be run at 35% or less of its capacity, then it is also not economically viable to run the other unit alone.

SCE should have been discussing either complete restart of both units or complete shutdown of both units, per the facts already agreed to in the original SGRP findings of the Commission in D.05-12-040. Instead, on October 4, 2012, SCE proceeded to propose to the NRC the operation of Unit 2 at 70% power without also operating Unit 3,³ until it finally acknowledged it is not economically viable to do so on June 7, 2013, with the announcement that it will permanently shut down Units 2 and 3.

³ <http://www.reuters.com/article/2012/10/04/energy-edison-sanonofre-idUSL3E8L45L620121004> "San Onofre nuclear restart plan faces lengthy review"

4. **SCE Delinquent in Plant Operation Responsibilities**

SCE has represented that 2012 costs were necessary to keep the plant in “high operational order” and in conformance with NRC regulations, but as Exhibit CDSO-4 demonstrates and as detailed below, SCE was cited by the NRC for numerous “more than minor” violations throughout 2012, with several violations persisting over years.⁴ **It is NOT reasonable for SCE and SDG&E ratepayers to pay for SCE’s persistent noncompliance with NRC regulations.** SCE Witness Perez averred that SCE doesn’t track costs in a manner to enable the expenditures for activities cited in NRC violations to be identified (Transcript at pp.541-42).

- *May 8, 2012 NRC Integrated Inspection Report for San Onofre NGS:*
 - “On February 8, 2012, operations personnel failed to document potential reactor coolant system perturbations and the measures, controls, and enhanced monitoring used to prevent perturbations... The performance deficiency is more than minor, and therefore a finding because it ... affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the failure to appropriately control work activities that could impact reactor coolant system inventory while in reduced inventory conditions, if left uncorrected, would have the potential to lead to a more significant safety concern.”
 - “Between March 2 and March 6, 2012, operations personnel failed to follow Procedure SO123-XV-1.20, and allowed tools and equipment in the vicinity of safety-related shutdown cooling components in the room for shutdown cooling heat exchanger train B that could have become an operability hazard during a seismic event... The performance deficiency is more than minor, and therefore a finding, because it ... affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. ... operations and Project Management Organization personnel failed to have an appropriate threshold to identify that tools and equipment in the vicinity of safety-related shutdown cooling components needed to be addressed to ensure that there would be no adverse impact to system operability.”

⁴ NRC Inspection Reports are publicly accessible by plant at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/listofrpts_body.html

- “Since December 1988, the licensee failed to address long-term pump bearing oil leaks on safety-related component cooling water pumps, and deferred effective corrective actions with temporary gasket sealant ... The performance deficiency is more than minor, and therefore a finding, because it ... affects the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, engineering personnel determined it was acceptable to use applications of gasket sealant to temporarily repair oil leaks, and delay permanent repairs on CCW pump bearing housings.”
- *August 6, 2012 NRC Integrated Inspection Report for San Onofre NGS:*
 - “The inspectors identified a non-cited violation of License Condition 2.C.(14) and the Updated Fire Hazards Analysis for the failure of the licensee to maintain the 3-hour penetration fire seal that separated redundant post-fire safe shutdown equipment. Specifically, prior to May 25, 2012, the licensee failed to maintain the 3 hour fire barrier between fire areas 2-SE-(-15)-138 and 2-SE-(-15)-19... The performance deficiency is more than minor, and therefore a finding, because it affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences... the licensee failed to ensure that personnel were adequately trained to inspect this type of penetration [H.2(b)](Section 1R05). “
 - “Between October 2009 and April 2012, maintenance personnel failed to follow Procedure SO123-FO-1, SO123-I-1.18, ‘Foreign Material Exclusion (FME) Control’, Revision 18, to prevent the introduction of a metal air filter frame that was left inside an energized electrical cabinet... The performance deficiency is more than minor, and therefore a finding, because it affected the cornerstone objected of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, maintenance personnel failed to prevent the introduction of foreign material into the energized electrical cabinet of inverter 2Y004.”
 - “On June 8, 2012, maintenance personnel failed to follow Procedure SO123-FO-1, ‘Site Foreign Material Exclusion Control Program,’ Revision 6, and Procedure SO123-I-1.18, ‘Foreign Material Exclusion (FME) Control’, Revision 18, when maintenance personnel failed to implement adequate foreign material exclusions controls during inverter 2Y004 troubleshooting activities... The performance deficiency is more than minor, and therefore a finding,

because it affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, maintenance personnel failed to implement adequate controls, as required, to prevent the introduction of foreign materials during troubleshooting and repair activities associated with electrical cabinet of inverter 2Y004.”

- “Licensee personnel failed to implement the non-class 1E battery testing procedure, SO23-I-9.96, ‘Non-1E Battery Bank Performance Test,’ Revision 5, for nit 2 battery 2B011 during refuel R2C17 when the battery is greater than 85% of its expected service life ... The performance deficiency is more than minor, and therefore a finding, because it affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences ... the licensee did not use conservative assumptions to demonstrate that the battery would maintain minimum capacity until the next refueling outage [H.1(b)](Section 4OA2).”
- “On February 2, 2012, engineering personnel used as-built engineering change package NECP 800041701 which physically modified the design of the fuel reconstitution gantry crane with no turnover *when an issued for construction engineering change package with turnover was required* ... The performance deficiency is more than minor, and therefore a finding, because ***it would become a more significant safety concern if left uncorrected since handling fuel with improperly modified equipment could result in fuel barrier damage*** ... the expectations regarding procedural compliance, and that personnel follow procedures were not effectively communicated to Design Engineering, Nuclear Fuels Management, and Project Management Organization personnel [H.4(b)](Section 1R18).”
- *November 9, 2012 NRC Augmented Inspection Team Follow-Up Report for San Onofre NGS:*
 - “Operations Procedure SO123-0-A8, ‘Trip/Transient and Event Review,’ Revision 5, was not adequate in that it did not define what unplanned reactor trip meant, and the operators did not complete the procedure as required... ***This finding is more than minor because if left uncorrected the performance deficiency could be viewed as a precursor to a significant event.***”
 - “The licensee’s failure to take appropriate measures to control preservation of safety-related equipment during shipping,

specifically the protective environment provided for the Unit 3 steam replacement generators was not appropriately specified or monitored... The finding is more than minor because it is associated with initiating events cornerstone attribute of equipment performance and ***affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations.***

5. **SCE Community Outreach for Emergency Preparedness noncompliant with State law and ineffective**

SCE's actions and expenditures for community outreach and emergency preparedness related to the SONGS outages in 2012 were NOT reasonable nor effective in that they do not acknowledge nor comply with California law, described in Exhibit CDSO-9:

- *SCE fails to acknowledge or comply with express provisions of the California Nuclear Energy Response Program administered by Cal-EMA, as described in Exhibit CDSO-9.* Legislation mandating the Nuclear Power Preparedness Program has been continuous since 1979, enacted as Government Code Section 8610.5, the Radiation Protection Act. The program is funded by PG&E, SCE and SDG&E through a special assessment fund managed through the State Controller – which SCE Witness Worden acknowledged is paid by SCE. (Transcript at p. 1168)
- *Based on site-specific studies for this State program, Emergency Planning Zones around the plant sites were established and detailed, and integrated plans were developed – contrary to SCE Witness Worden's assertion that these zones were and are established by the NRC.* (Transcript at p. 1172)
- The Nuclear Power Plant Emergency Response Plan establishes the State of California's emergency response organization and defines the role of OES [now Cal-EMA] as the coordinating agency for utility, local, state, federal and volunteer agency response to a nuclear power plant incident. *SCE fails to acknowledge this in its community outreach or emergency preparedness materials, as acknowledged by SCE Witness Worden who could not cite any materials which do so.* Only in “regular consultations and coordination and drilling through the interjurisdictional planning committee” represented by the counties, Camp Pendleton and cities in the 10-mile basic Emergency Planning Zone. (Transcript at pp. 1170-71)
- SCE's community outreach materials for emergency preparedness emphasize the “basic Emergency Planning Zone, an approximate ten-mile radius around the plants”, while there are two other zones established by

State law –

- The “Ingestion Pathway Zone, an approximate 50 mile radius around that plant ... to mitigate the effects on agriculture, and food processing and distribution.” AND
- “Public Education Zones, approximately 35 miles from the plants,” in which “educational materials are distributed to inform the public about nuclear power plant operations, what to expect in the event of an accident and what plans are in place for public protection. The utilities are required to publish and disseminate information for residents and transient populations, including telephone directory guidance.”
- SCE’s “Emergency Preparedness Information for the San Onofre Nuclear Generation Station 2012-2013” (Exhibit WEM-10), is labeled “Please keep this brochure in your home, your car or a handy place so that you will have the information in an emergency.”
- ***On p. 2 of this brochure, the “Public Education Zone” is labeled “20-Mile Radius”, NOT the 35-mile radius prescribed in State law.*** When questioned about this 15-mile discrepancy (over 55% of the State prescription), SCE Witness Worden first said “the math is close” (at Transcript p. 1172), and that it was not specific to San Onofre. When he was corrected, he speculated that it could be “an average of the two” – referring to the state’s two commercial nuclear power plants, Diablo Canyon and San Onofre – while admitting that he is not as familiar with the State requirements as he is with SCE’s and NRC’s (at Transcript p. 1173-74).
- SCE Witness Worden was not aware of distribution of information in the 50-mile Ingestion Pathway Zone other than in the event of an accident (at Transcript p. 1175-76), nor did he know who “the cadre of trained emergency responders” are within this Zone (at Transcript pp. 1179-80).
- In response to CDSO’s question whether hospitals within this Zone have radiological detectors and trained personnel to respond to a radiological emergency, SCE Witness Worden opined that “they have to have it because they have x-rays every day. So the majority of the radiation is medical related, not related to the power plant. So they have to have that.” (Transcript at pp. 1180-81)
 - ***The foregoing glib and/or ignorant answer by the SCE Witness highlights the attitude of SCE toward the very serious possibility of INGESTION of radioactive particles***

as the result of a nuclear power plant accident, hence the establishment by the State of California of an “Ingestion Pathway Zone” for “effects on agriculture, and food processing and distribution.” X-rays emit 10% of the daily threshold for radiation exposure established by the USEPA, and do not pose the same sort of radioactive contamination hazard as commercial nuclear power plants.

- When questioned about compliance with the State’s requirement for information dissemination to transient populations within the 35-mile Public Education Zone, SCE Witness Worden cited camping at San Onofre Beach and hotels/motels within the 10-mile Zone only (Transcript at p. 1177). ***Besides not complying with the State requirement to do this within a 35-mile radius, no mention of day visitors to beaches, parks and recreation, businesses, etc., NOR to the houseless population.***
- Similarly, when questioned how SCE communicates with the more than 85 languages used by residents and visitors in Orange, San Diego and Los Angeles Counties, SCE Witness Worden replied that ***SCE responds to requests to translate materials and “we haven’t had any inquiries.”*** (at Transcript p. 1180) So SCE is passive in outreach to those for whom English is not the primary language. In this day and age, this is unacceptable and certainly NOT reasonable nor effective.

6. SCE Witnesses Chosen to Avoid Disclosure

SCE should NOT be rewarded for stonewalling the Commission by offering Witnesses who are repeatedly unable to answer questions or who answer incorrectly. Examples follow:

- SCE Witness Perez at Transcript p. 474:
*“MS. SULLIVAN: Q What is Edison's policy for who the appropriate witness is for the exhibits that it offers into evidence?
A The normal policy is that the witness that is most knowledgeable about that.
Q The witness that is most knowledgeable what?
A Most knowledgeable about the content of the testimony.
Q So if I may ask, why were you the witness for the letters that you don't have any knowledge of?
A I felt comfortable being the witness for those letters as to the general content. The fact that they were repair plans, specific details about the other letters, and the meetings that occurred, I was not there, so I could not comment on those.”*
- In response to ALJ Darling’s questions about “emergent expenses” related to U3 in November and December of 2012, SCE Witness Perez testified

that SCE started putting Unit 3 into “preservation mode” in the last quarter of 2012 (at Transcript p. 667), but the Timeline this same witness sponsored in Exhibit SCE-10 says that efforts to place U3 in Preservation Mode began in July of 2012, Reactor Defueling began on 10/1 and ended on 10/5.

- SCE Witness Perez insisted on describing Units 2 and 3 as “in extended outage” and testified that he didn’t know if the NRC has a specific definition of “shutdown”, nor did he have the NRC definitions handy to reference (at Transcript pp. 698-699). During subsequent questioning by CDSO, SCE Witness Perez referenced the plant’s Technical Specifications as authorized by the NRC in his materials and read the operating Modes for the plant: “Mode 1 is power operation; Mode 2 is start-up; Mode 3 is hot standby; 4 is hot **shutdown**; 5 is cold **shutdown**; 6 is refueling; and [unnumbered is] defueled.” (emphasis added) And when pressed by CDSO questioning, SCE Witness Perez admitted that Unit 2 is in Mode 5 (cold **shutdown**) and Unit 3 is Defueled (at Transcript p. 702). In the Timeline in Exhibit SCE-10, sponsored by SCE Witness Perez, “U2 **returned** to Mode 5 [cold **shutdown**] is listed on 10/27/12, after achieving Mode 4 [hot **shutdown**] on 10/20/12 for purposes of testing the U2 Reactor Coolant System in Mode 3 [hot standby] returning to Mode 4 [hot shutdown] on 10/26/12. *Clearly, Unit 2 was in Mode 5, “cold **shutdown**” prior to 10/20/12 in order to be “returned to Mode 5” on 10/27/12 per the Timeline in Exhibit SCE-10.*
- Also, see discussion in Section 5 above regarding SCE Witness Worden’s lack of familiarity with the the State of California’s prescriptions for emergency preparedness planning for commercial nuclear power plants, and his ignorance of radiological detection readiness within the prescribed 50-mile “Ingestion Pathway Zone.”

CONCLUSION: The only costs in 2012 associated with the San Onofre Nuclear Generating Station that can reasonably be allocated to ratepayers are those required to maintain the safety-related components of the plant, as defined by the U.S. Nuclear Regulatory Commission (NRC.) At Transcript p. 390, SCE Witness Perez:

Q You state safety related is defined by the NRC as limited to identifying those systems, structures and components, and procedures and processes that are absolutely necessary in emergency, non-routine conditions to safely shut down the plant and maintain it in a safe shutdown condition, correct?

A Correct.

- ***The Commission should order SCE to identify the NRC-defined “systems, structures and components, and procedures and processes that are absolutely necessary in emergency, non-routine conditions to safely shut down the plant and maintain it in a safe shutdown condition” and costs associated therewith, for finalization by Commission order subsequent to a publicly-noticed workshop facilitated by the Energy Division.***
- All other costs, including the root cause analysis, refueling of Unit 2, efforts to restart Unit 2, and defueling costs for Unit 3, among others should be refunded to the ratepayer. This Recommendation by CDSO is supported by Findings 1-6 which precede.

Respectfully Submitted,

/s/ Martha Sullivan

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