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From: Vinod Arora [vinnie48in@gmail.com]
Sent: Wednesday, May 08, 2013 7:45 PM
Subject: San Onofre Discrimination, Retaliation, Unit 2 Steam Generators, Current SVP/CNO and NRC Commission

Reference: Nuclear Regulatory Commission [Docket No. 50-361; NRC-2013-00701, Application and Amendment to Facility Operating License Involving Proposed No Significant Hazards Consideration Determination; San Onofre Nuclear Generating Station, Unit 2]

To whom it may concern - San Onofre Discrimination, Retaliation, Unit 2 Steam Generators, Current SVP/CNO and NRC Commission

Email To Obama's Campaign

Attention: Your Excellency Honorable President Barack Obama, Greatest People's President in the Modern History of United States

Message: Continued cover-up by NRC Region IV, Southern California Edison and Mitsubishi Heavy Industries in San Onofre Nuclear Generating Station Replacement Generators has become a nightmare for 8.4 Million Southern Californians.

Southern Californians demand well-managed, well-maintained, safe, economical, 24/7 reliable nuclear power and grid stability from San Onofre. Others, frustrated with SCE and NRC refusing to discuss safety issues want to decommission San Onofre. A balance can only be achieved, and the public trust can only be restored by an independent and transparent investigation, conducted by the Office of NRC Inspector General and Senate Committee on Environmental and Public Works. In the end, no matter how long it takes, for SCE to stay in business and earn public trust, San Onofre Leaders have to work very hard and honestly to achieve excellence in Regulatory Compliance, Operational and Public Safety to become an INPO I Plant and work place free of discrimination, retaliation, intimidation and insults to nuclear workers. This can only be achieved as a minimum, by the following actions:

1. The NRC Chairman has publically stated that SCE is responsible for the work of MHI, Westinghouse, AREVA and Intertek. The NRC Office of Inspector General is formally requested to retain an Independent Thermal-Hydraulic Expert to examine the operational differences between Units 2 & 3 during Cycle 16 and determine its impact on NRC CAL Action 1 by examining the entire SONGS Cycle 16 operational data for Units 2 & 3. Unit 2 Restart Permission at 70% power should be contingent on completion of the corrective actions required by NRC CAL Action 1 and 10CFR 50 Appendix B. Based upon the above investigation, determine the true Root Causes of San Onofre Units 2 & 3 degradation, as shown below.

2. Two Independent Nuclear Experts certify that MHI SG Tube Fatigue and Stress Calculations Assumptions are erroneous and based on faulty data – NRC Office of Inspector General is requested that SCE certify MHI's calculations to assure that San Onofre Unit 2 does not pose significant radiological risks at 70% normal steady state power operations during Anticipated Operational Transients and Design Basis Accidents.

3. The Office of NRC Inspector General and Senate Committee on Environmental and Public Works are formally requested to investigate the role of San Onofre Senior Management Team in Steam

Generator Discrimination, Retaliation, and Intimidation Case of Injured Fire Protection and Emergency Preparedness Engineer/Auditor (Proof will be furnished by me under oath when requested, but mean while all the personnel files in this case including the files submitted by SCE to the Industrial Psychologist should be seized from SCE's possession due to high possibility of tampering these files). Please be advised that US EEOC and State of California are already investigating this case.

4. The Office of NRC Inspector General and Senate Committee on Environmental and Public Works are formally requested to investigate the relationship between SCE Management and NRC. In the December 2012 California San Onofre Public NRC Meeting and 2013 NRC Commissioner's Meeting, it was clear obvious that these meetings were favorable and very protective of Pete Dietrich and SCE Staff compared with the General Public. Despite repeated requests, NRC AIT Team Leader has refused to investigate the operational discrepancies between Unit 2 and 3 and its impact on item 1 above.

Background: Power Engineering Magazine – May 7, 2013 - Southern California Edison is considering retiring both of its Pacific coast nuclear reactors, the Associated Press reports. Both reactors at Edison's San Onofre Nuclear Generating Station, located between San Diego and Los Angeles, have been offline since January 2012 following the discovery of serious system flaws. Keeping the combined 2,250 MW units offline has come at a price tag of \$574 million, a cost that has been passed on to power customers and shareholders. "There is a practical limit to how much we can absorb that risk," said Edison CEO Theodore Craver in a conference call of Wall Street analysts, according to the AP. Craver said a decision on the future of the entire facility is expected before the end of 2013.

On Wednesday February 6, 2013, Sen. Barbara Boxer pressed federal regulators to open an investigation at the plant after uncovering documents that she said suggest that Southern California Edison took engineering shortcuts and compromised safety. The Democratic senator said in a letter to Nuclear Regulatory Commission Chair Allison Macfarlane that a confidential report obtained by her office shows Edison and Mitsubishi Heavy Industries, the Japan-based company that built the plant's steam generators, were aware of design problems before the equipment was installed in 2009 and 2010. Boxer, who chairs the Environment and Public Works Committee, said the report written by Mitsubishi raises concerns that Edison and its contractor rejected safety modifications and sidestepped a more rigorous safety review. "Safety, not regulatory short cuts, must be the driving factor in the design of nuclear facilities, as well as NRC's determination on whether (San Onofre) can be restarted," Boxer said in a letter co-signed by Rep. Edward Markey, D-Mass. Senator Barbara Boxer on April 9 states, "Today I called on the Nuclear Regulatory Commission (NRC) to take no action that could lead to any restart of the San Onofre nuclear power plant before the Commission completes its comprehensive investigation and provides a full opportunity for public participation. I wrote to the NRC in response to Southern California Edison's latest proposal to weaken its license requirements, which could prematurely enable a restart of the shutdown plant. As I noted, anything less than a full investigation and safety review "would fall far short of the kind of consideration the 8 million people who live within 50 miles of the San Onofre facility deserve." Pete Dietrich in response to Senator Barbara Boxer states, "As with all engineering evaluations, the MHI letter and report describe a technical evaluation process and need to be read in their entirety to understand the conclusions reached," Dietrich said. "The activists are taking portions of paragraphs and sentences out of context, and using them as the basis of their allegations that SCE knew of design defects when the generators were installed but failed to make changes to avoid licensing requirements. That is untrue."

During this past year, San Onofre facility's declining performance issues have been lost in the shadow of the much bigger problems with premature tube degradation in the recently installed

Replacement Steam Generators, and concerns about the plant's future operation. SCE is a public utility; the fact that they use their abundant financial resources to actively silence potential critics is a practice, which I believe should be of concern to all the NRC Office of Inspector General, All Citizens and Residents of World's most powerful and democratic country.

There are multiple levels of corruption within SCE, which needs to be rooted out and exposed. Without complete transparency by our public utilities; honest public debate about performance, equipment, and environmental issues pertaining to SONGS cannot occur and places the health and safety of the public in jeopardy. Without honesty and transparency, we run the risk of having a significant nuclear event comparable to Chernobyl or Fukushima in Southern California. As I am sure you are well aware of, if there were ever a significant radiological release to the atmosphere at SONGS the area surrounding the plant could become uninhabitable for several decades or longer. It is no small task to clean up radioactive contamination from the environment. This is a serious topic, which could impact the future of California.

Street rumors are getting stronger by the minute that backed by Insensitive and Public Safety Ignorant Anonymous Power Politician(s), the "Captured & Afraid" NRC and "Penny-Wise & Pound-Foolish" SCE plan to perpetrate another act of Profits and Production Experiment upon the people of Southern California to determine the True Root cause of Replacement Steam Generators (RSGs) degradation and wipe out the mistakes of SCE/MHI Team in the \$1 billion RSGs debacle. By allowing Southern California Edison to restart the damaged and defective reactor number two, that has not even been repaired, to experimentally restart at 70% power sometime in June or July 2013. Profits and Production over Safety Experiment is not nuclear and financial wisdom, because many people in California are afraid for the health of their children, their property values, and what would happen if a major nuclear accident happened at San Onofre Nuclear Generating Station? By definition, Profits and Production over Safety is a deliberate act to make Profits and Production ignoring Safety of 8.4 Million Southern Californians. Just thinking about the evacuation plan that every Californian knows would not work, and having to shelter in place during a nuclear meltdown at SONGS. Then after the radiation damage to people's health has been done just like Chernobyl and Fukushima, the government will announce in a month or two (far too late) that in a 10, 20 or 30 mile radius will be an exclusion zone due to high radiation levels, and everyone has to leave their homes and possessions to go live in a refugee camp somewhere in Riverside County. The loss of billions in property values, infrastructure (schools, roads, beaches, farm land and food crops, local governments) personal disruptions and destruction of several millions lives, all put at risk in the name of profits for SCE. What will be the fate of Southern California if this act of Profits and Production over Safety by NRC and SCE are allowed by restart at San Onofre Nuke plant?

Currently, SONGS Units 2 and 3 are both shut down because of premature tube wear in the Replacement Steam Generators, and the situation is being investigated by the NRC. Last October, SCE proposed a plan to run Unit 2 at only 70% plant power, claiming that this change would eliminate the conditions, which led to the Steam Generator Tube Leak in Unit 3, premature tube wear, tube wall thinning, high cycle fatigue and incubating cracks in both Units' Steam Generators. However, a reduction in plant power in Unit 2, will not eliminate the causes, which originally led to Tube Leak in Unit 3 SCE. SCE has implied that operating the plant at a reduced power level will reduce the threat of further Steam Generator tube ruptures and subsequent radioactive release to the environment, when in fact, the threat can never be removed because of the defective design of the Replacement Steam Generators, which is as follows:

Condition of Unit 2 steam Generators: SONGS Unit 2 & 3 RSGs are of the same design. Therefore, the description of unit 3 provided below is also applicable to Unit 2. SONGS Unit 3 RSGs' unprecedented tube failure and massive tube and AVB/TSP degradation occurred due to fluid elastic

instability, flow-induced random vibrations, Mitsubishi Flowering Effect and high cyclic fatigue under the following unique circumstances:

- (1) U-tube bundle areas with high dry steam experienced double in-plane velocities (> 50 feet/sec, based on review of MHI Root Cause, Dr. Pettigrew and other research papers published between 2006-2011) compared with out-of plane velocities assumed (25 feet/sec) to have been predicted by Outdated Out-of-Plane Westinghouse /NRC /MHI /AREVA ATHOS Computer Models,
- (2) Lack of positive in-plane restraints and zero damping,
- (3) Large number of SONGS Units 2/3 RSG U-bends with tube clearances of only 0.05 inches (Design 0.25 inches, Industry Norm > 0.25 inches),
- (4) Excessive number of tubes with narrow tube pitch to tube diameter,
- (5) Low frequency small diameter retainer bars (56 HZ) installed to fit the excessive number of SCE requested tubes compared with other MHI SGs' higher frequency and retainer bars (120 HZ to 1200 HZ), which are not prone to vibrations due to fluid-induced vibrations.
- (6) SONGS' tubes being much longer compared with Westinghouse Model 51 steam generators (Average length of heated tube = 730 inches) and other MHI SGs,
- (7) MHI RSGs' unique floating tube bundle with degraded Retainer Bars can collapse due to 100% tube uncover for 10 minutes under MSLB SG Depressurization, Multiple SGTR SG over-pressurization and lifting of SG Relief Valves, Combination of MSLB and SGTR Conditions, Release of 100% RCS Iodine to Environment,
- (8) Large amount of uncertainties and unverified assumptions in MHI, AREVA, Westinghouse and Intertek's contact force modeling (zero for in-plane vibrations), calculation of impact wear coefficients and tube stress calculations (4.6 ksi versus 16-17 ksi) and computer and statistical modeling, and,
- (9) Incomplete tube inspections in SONGS Unit 2. Incubating macroscopic circumferential cracks caused by fluid elastic instability, flow-induced random vibrations and high cycle thermal fatigue are extremely difficult to detect and be accurately sized by nondestructive evaluation techniques including X-ray, ultrasonic, and eddy current based bobbin coil probes, mechanically rotating pancake coil (RPC), etc., which have been used in 170,000 SONGS Tube inspections. State-of-the-art systems: Zetec MIZ-80 iD system, Tecnatom TEDDY+, Circular TE and TM, transmit-receive eddy current array probe C-3 and other specialized radiographic probes capable of detecting sub-surface cracks caused by high cycle thermal fatigue have not been used in the 170,000 SONGS Tube Partial and Limited Inspections as shown below for Unit 2 due to access problems in the most problematic innermost sections of the U-Tube Bundle, the high cost, lack of availability of highly specialized tools and contractors, radiation doses, and time considerations in a rush to start Unit 2. The inspection scope defectively designed and degraded SONGS Unit 2 RSGs should have covered 100% hot leg and cold leg tube inspections, 100% of dents or dings, 100% of tube inspections in the tight radius U-bends, 100% area of the Top of the Tube Sheet and Tube Support Plates.

SCE's proposed plan is irresponsible, and shows a serious lack of conservative decision making principles. "Conservative decision making" is a nuclear fundamental that means the safest decisions should always be made to protect the health and safety of the general public, the plant workers, and the environment. If the NRC approves SCE's plan, workers in the Operations Department will be required to start up and run the reactor knowing that the Replacement Steam Generators have extensive design problems and significant wear, which could lead to another tube rupture and radioactive release to the environment. Reactor operators experience great stress during normal work conditions. The fact that SCE wants its workers to operate defective equipment shows the flagrant disregard that SCE and SONGS senior management has for the health and safety of nuclear workers at the plant, as well as the people living in the surrounding communities. One of the SONGS Best Shift Manager resigned because he told that the SCE Management, "No way he was going to put his license on line by operating a defective unit and put the health and safety of nuclear workers at the plant and public at risk." One Long Time Plant Operator said, "These SCE Senior Management

Directors sitting in their plush offices with ocean view are running San Onofre like a Federal Nuclear Prison."

October 4, 2012: The utility that runs California's troubled San Onofre nuclear plant is in the midst of unprecedented upheaval as it works to rein in bloated management, address ethics issues and digest new evidence that many of its employees work in a "pressure-cooker" environment marked by overwork, distrust and fear of retaliation, according to documents obtained by Inside Climate News.

KPBS, June 28, 2012: For the past four years, San Onofre Nuclear Generating Station has had the highest number of safety complaints of any nuclear plant in the country. "That's not the list you want to be on top of," said nuclear power expert David Lockbaum of the Union of Concerned Scientists. "I don't think there is any doubt whatsoever that right now the workforce at San Onofre doesn't trust management and when they have safety concerns they're either not raising them at all or they're raising them to the Nuclear Regulatory Commission as the only option they have available," he added. "That's not the way it's supposed to work. The workers are basically the canaries in the coal mine. They're the first ones who see the problems. Their voices need to be heard, not ignored."

Democratic Underground: Not more than three weeks before the tsunami hit Japan and touched off the worst nuclear reactor catastrophe since Chernobyl, an environmental group in Orange County released an internal memo to the Los Angeles Times which says that workers at the San Onofre are afraid of retaliation if they report problems at their Southern California Edison-operated nuclear facility. As the Times article states, an engineer at the plant said more than 24 workers who came forward to report safety problems said "they feared retaliation from management after they made complaints." Ninety percent of those who feared management fallout from their complaints did, in fact, reportedly experience some retaliation. .

According to the findings of the Institute of Nuclear Power Operations (INPO), San Onofre has been the worst rated nuclear plant in the nation. And according to the World Association of Nuclear Operators (WANO), San Onofre has been the worst or near worst rated nuclear plant in the nation for industrial safety. And according to the NRC, San Onofre has had the longest running cross cutting issues in Human Performance in the history of U. S. nuclear power. "Cross cutting issues in Human Performance" means that in nearly every department significant errors are being made because workers do not follow required procedural steps. The length and breadth of these issues were so egregious it forced the NRC to revise their procedures because San Onofre was actually outside of all postulated conditions set forth in the NRC procedures governing Human Performance failures. This is very condemning evidence which shows that SONGS has been mismanaged for many years. How much more evidence do we need before an adjudicated public hearing is held to investigate the matter?

The design problems and the conditions, which led to the first Steam Generator tube failure in Unit 3 have not been thoroughly investigated and a true root cause has been not been determined by SCE and its hired World's Best experts. However, these analyses confirm that future Steam Generator tube wear and tube ruptures with a resultant radioactive release to the environment are inevitable. Why does SCE need to do a 5 month experimental test run with Unit 2; just to see if the true root cause can be determined? At what point in time and on what basis, NRC decide that doing an experiment with a full scale commercial nuclear reactor was a good idea? What SCE is proposing is unprecedented in the history of U.S. nuclear power. It was an equipment test experiment, which led to the nuclear event at Chernobyl in 1986. Didn't we learn anything from that tragedy?

Public distrust, and nuclear worker distrust of SCE's management of SONGS has been growing significantly over the past year, and I believe it has reached a boiling point. The electric ratepayers of

southern California do not believe they should be held financially responsible for SCE's engineering mistakes in the design of the Replacement Steam Generators, or for the cost of running a shutdown nuclear facility, which has not produced a single megawatt in over a year. All of you, I believe you have a responsibility to take action on this matter and decide the fate and future of the San Onofre Nuclear Generating Station. The NRC's biggest flaw is that they are neither omnipresent nor omniscient; and they cannot regulate the nuclear power industry as everyone assumes they do. In 2010, when James Chambers, one of the plant's operator, filed serious allegations regarding blatant procedural violations and retaliation against himself for raising safety concerns at the plant, he said that NRC would never actually do anything; and nothing has changed in three years. I personally know of at least four Asian Engineers and 2 Fire Captains, who were discriminated, retaliated, intimidated, insulted and fired for reporting safety concerns. The last SVP/CNO, Ross Ridenoure, a Confidence Builder with a great smile, performance and enviable safety conscious environment track record, was forced out of the job, because of the non-performing Current San Onofre Senior Leadership Team. The Team he hired, kept collecting big paychecks, bonuses and perks, but did not do a single thing to help SVP/CNO and improve the worker environment and plant performance.

Now, the present SVP/CNO, Pete Deitrich, with a great performance and enviable safety conscious environment track record, has lost all his public credibility, because at 2 Million dollars a year, he is unknowingly preaching false safety sermons and pushing the NRC Commission to grant permission to restart degraded Unit 2 without time for adequate review and public participation. He is quoting the NRC AIT Team for MHI's failures without investigating the facts of the performance of the SCE/MHI AVB Design Team, putting all the blame on Mitsubishi and absolving SCE of all the mistakes in the design of replacement steam generators. The question is what kind of bad information Pete is getting from his retaliating, discriminating, inefficient and dishonest Senior Management Team and what kind of influence, he is exerting over the NRC Commission to convince them to grant a unit 2 restart License without public involvement and a thorough review of NRC CAL Actions, Unit 2 Return to Service Reports and NRR RAs. Here are some of Pete's quotes:

Pete Dietrich, SONGS Chief Nuclear Officer said in Jan 10 2012, "The plant's largest components — steam generators — are just two years old and represent the safest, most efficient 21st century machinery." [Source: Market Watch]

SCE submitted the operational assessment of potential Unit 2 steam generator tube wear to the Nuclear Regulatory Commission in response to NRC questions. "This evaluation confirms the structural integrity of the Unit 2 steam generators at 100 percent power, as requested by the NRC," said Pete Dietrich, SCE senior vice president and chief nuclear officer. "While we have no intent to restart Unit 2 at full power, this demonstrates the amount of safety margin we have built into our analyses. We welcome this additional safety analysis but remain steadfast in our commitment to restart Unit 2 at only 70 percent power."

A letter from Mitsubishi Heavy Industries (MHI) to the Nuclear Regulatory Commission (NRC) proves false the latest round of allegations from activists. "The anti-nuclear activists have called the MHI report a 'bombshell' which couldn't be further from the truth," said Pete Dietrich, SCE senior vice president and chief nuclear officer. "In fact, the MHI letter explains that SCE and MHI rejected the proposed design changes referenced in the evaluation because those changes were either unnecessary, didn't achieve objectives or would have had adverse safety consequences. "Our decisions were grounded in our commitment to safety. SCE did not, and would never install steam generators that it believed would impact public safety or impair reliability." "As with all engineering evaluations, the MHI letter and report describe a technical evaluation process and need to be read in their entirety to understand the conclusions reached," said Dietrich. "The activists are taking portions of paragraphs and sentences out of context, and using them as the basis of their allegations that SCE

knew of design defects when the generators were installed, but failed to make changes to avoid licensing requirements. That is untrue."

SONGS SG Root Cause: Dormant Negative Safety Culture (Production over Safety)

Contributing Causes

1. Human Performance Errors

- Lack of critical questioning & investigative attitude by SCE/MHI
- Lack of solid team work and alignment between MHI & SCE AVB Design Team
- Lack of academic research and Industry benchmarking by SCE/MHI
- Avoidance of 10CFR 50.90 License Amendment Process by SCE/MHI and Defective 10 CFR 50.59 Evaluation/Screen
- Complacency, Ignorance and Time Pressure by SCE/MHI
- Lack of Benchmarking of Computer Codes and Full Scale Mock-up Testing by MHI
- Inexperienced Designer and Low Cost/Inexperienced/Aggressive/Ignorant Manufacturer
- Blind Trust by NRC Commission In SCE's Error Likely Conservative Assumptions, Unexplained Safety Explanations and False Public Safety Sermons

2. Design Deficiencies - SCE

- Increase of the tube bundle heat transfer surface area from 105,000ft² (OSG) to 116,100 ft² (an 11% increase) to generate more heat, and more profits
- Increase in the number of tubes from 9,350 (OSG) to 9,727 (RSG), 4% increase in heat transfer surface area and low tube-to-tube clearances
- RSG tube bundle being taller than that of the OSG (Average Length of Heated Tube increase from 680- 750 inches – equivalent to 700 tubes, 7% increase in heat transfer surface area
- Lack of In-Plane AVBs (Incorrect Assumptions)
- Installation of Low-frequency 56 HZ retainer bar to fit excessive number of tubes
- Reduction in Tube Wall thickness from 0.048 inches to 0.043 inches to pump more RCS Flows and reduced the in-plane vibration resistance of the tubes
- Removal of Stay Cylinder

3. Operational Causes - To generate more heat, more power and profits - SCE

- Operation at Low Steam Pressures (e.g., 833 psi)

- Increased Reactor Coolant Flows (e.g. 79.70 Million lbs/hour)
- Poor Circulation Ratios (e.g., 3.2-3.4)