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AUTHOR: Don Leichtling

AFFILIATION:

ADDRESSEE: Chairman Resource

SUBJECT: Restart or Not to Restart - The Trillion Dollar Question ; San Onofre  
Nuclear Generating Station (SONGS)

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## CHAIRMAN Resource

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**From:** Capt.D [captddd@gmail.com]  
**Sent:** Wednesday, November 21, 2012 8:10 PM  
**To:** R4ALLEGATION Resource  
**Cc:** Young, Cale; CHAIRMAN Resource; Terrance Horner  
**Subject:** Restart Or N\*~~A~~T To Restart? --> The Trillion Dollar Question

11-21-12

SCE is now in Violation of 10 CFR 50, Appendix A, GDC 14, 15, 30 and 32 and SONGS Technical Specification Requirements and SONGS Technical Specification Requirements and cannot be allowed to Restart Unit 2 Radiation Steaming Crucibles. SONGS Chief Nuclear Officer Pete Dietrich said on 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]. All four of the CHEAP & DEFECTIVE Radiation Steaming Crucibles are of the same SCE "Innovative and Challenging Design" that were fabricated by the inexperienced Mitsubishi Heavy Industries.

Many steam generator tube ruptures and steam line break events have occurred in the last 30 years at nuclear power plants throughout the world. In light of the Unit 3 Replacement Steam Generators (RSGs) unprecedented eight tube failures due to 99.6% steam voiding, narrow tube pitch to tube diameter ratio, low tube clearances, NO design "In-plane Fluid Elastic Instability support protection" and low frequency retainer bars vibrating with large amplitudes, DAB Safety Team agrees with MHI that all the Unit 2 Tubes would be susceptible to the Type 1 (tube-to-tube) and Type 4 (Retainer Bar) failures/ruptures due to 100% steam voiding of the entire U-Tube Bundle in case of a Main Steam Line Break (MSLB). Therefore, to meet the SONGS Technical Specifications and GDC 14 of Appendix A to 10 CFR Part 50 for a MSLB and prevent a nuclear accident and reactor meltdown from cascading tube ruptures in Southern California, all the tubes susceptible to Type 1 and Type 4 wear should be preventatively plugged before Unit 2's Restart. In other words, the Unit 2 RSG's in the "As Designed and Degraded Configuration" cannot be OPERATED at any "Power Levels" due to the substantial risk of nuclear meltdown.

So now the Trillion Dollar Question is, will the NRC in their November 30 Public Meeting, give Pete Dietrich the OK to run a test to see if all 16 of the damaged tubes in Unit 2 can rupture at MSLB conditions before Christmas, melting down the Unit 2 reactor which will create a SoCal Fukushima in Southern California?

Pete Dietrich better tell Ted Craver and Ron Litzinger to be ready to repay the \$12 Billion Nuclear Liability Insurance Premium for their Trillion Dollar Coverage because of their Potential Nuclear Accident in the Making!



## CHAIRMAN Resource

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**From:** Capt.D [captddd@gmail.com]  
**Sent:** Wednesday, November 21, 2012 5:43 PM  
**To:** CHAIRMAN Resource; Young, Cale; Terrance Horner  
**Subject:** Re: Letter to Mr. Danny Roderick, President & Chief Executive Officer, requesting a second review of your SONGS Report

FYI, without attachments...

On Wed, Nov 21, 2012 at 1:46 PM, Capt.D <[captddd@gmail.com](mailto:captddd@gmail.com)> wrote:  
FYI

----- Forwarded message -----

**From:** **Capt.D** <[captddd@gmail.com](mailto:captddd@gmail.com)>  
**Date:** Wed, Nov 21, 2012 at 10:44 AM  
**Subject:** Letter to Mr. Danny Roderick, President & Chief Executive Officer, requesting a second review of your SONGS Report  
**To:** [RapaliT@westinghouse.com](mailto:RapaliT@westinghouse.com)

Ms. Rapali,

Please forward the following message to:

Mr. Danny Roderick

President & Chief Executive Officer

Westinghouse Electric Company

Sir,

My name is Don Leichtling and I am a spokesman for The DAB Safety Team. The DAB Safety Team is a battery of nuclear experts that are working to promote safety in a team effort, by publishing the *San Onofre Papers*, the latest of which is entitled: *SONGS MSLB Analysis*, which in 42 pages, describes in detail, why SONGS Unit 2 is now unsafe at any power level.

Two quotes about Westinghouse:

Westinghouse Corporate Responsibility: Westinghouse is confident in its longstanding pledge: "**You can be sure... if it's Westinghouse.**" Through ethical behavior and sound environmental, health, and safety considerations, Westinghouse continues its commitment to excellence. [Source: Westinghouse Website]

"Having been a customer of Westinghouse, as well as a competitor and supplier to them, I am in a unique position to help this great team to be ready for the next 50 years." Roderick said. [Source: Press Release]

Concerning the attached Operational Assessment report prepared by Westinghouse Staff in support of SCE's SONGS Restart Effort of their Degraded Unit 2, we feel it is biased and inconclusive on the causes and extent of degradation pertaining to the SONGS Unit 2 Replacement Steam Generators (RSG's). It is the *opinion* of the DAB Safety Team's Expert Panel, former NRC Staff and SONGS Concerned Insiders that this Westinghouse Operational Assessment is *full of holes* based on incomplete inspection data, under-conservative computer modeling and is in effect, just "Smoke & Mirrors," because:

(1) SCE Engineers have either not provided, or they are withholding important information from Westinghouse because of "The consequences of being Wrong, Terminated or Fired,"

(2) Due to competing and proprietary interests between Westinghouse and MHI, Westinghouse Engineers do not have all the MHI Manufacturing Details and are just guessing in their Deterministic Operational Analysis of Unit 2, the second worst Degraded Replacement Steam Generators in the Operating US Nuclear Fleet,

(3) Due to Time Pressure exerted by SCE, Westinghouse Staff did not have proper time for independent validation of all facts, documentation and data provided by SCE's Engineers, in their original report.

(4) Since nobody knows what really happened, all the Parties have a shared interest to "Operate Unit 2 at reduced power as a nuclear "RSG Tube Wear Test Lab".

Since Westinghouse considers themselves the Premier Builder of Nuclear Power Plants in the World, the DAB Safety Team would like to ensure that this report gets independently reviewed (again) and re-validated by the Westinghouse Corporate Technical and Quality Assurance Staffs because the upcoming NRC technical review of SCE's steam generator tube degradation at San Onofre on November 30, 2012 might very well make Westinghouse look bad, especially if your *original* review was based on incomplete data! **Note:** MHI has recently issued a 10 CFR Part 21 10/25/12 (Mitsubishi ML12283A243) notice to further *cover* themselves after reviewing what we and all the other outside experts have submitted regarding the abnormal tube wear in their RSG's...

Thank you in advance for this second review, America cannot afford a Trillion Dollar Eco-Disaster like Fukushima, especially one caused by already damaged RSG tubing.

The DAB Safety Team would appreciate a written response to our enquiry.

Sincerely

Don Leichtling

- The DAB Safety Team

Enclosures:

1. Enclosure 2: San Onofre Nuclear Generating Station Unit 2 Return to Service Report

## 2. Attachment 6 – Appendix D: Operational Assessment of Wear Indications In the U-bend Region of San Onofre Unit 2 Replacement Steam Generators

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**Joosten, Sandy**

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**From:** Capt.D [captddd@gmail.com]  
**Sent:** Monday, November 26, 2012 12:51 PM  
**To:** Capt D  
**Subject:** Press Release 12-11-26: San Onofre's Restart Reports Fail BOTH NRC Safety Definition & Quality Assurance Standards

## **PRESS RELEASE**

**The DAB Safety Team: November 26, 2012**

**Media Contact: Don Leichtling (619) 296-9928 or Ace Hoffman (760) 720-7261**

### **San Onofre's Restart Reports Fail BOTH NRC Safety Definition & Quality Assurance Standards**

The DAB Safety Team has serious concerns about SCE's Unit 2's Restart Reports, because these reports do not meet the NRC Chairman's Safety Definition nor do they satisfy the NRC's 10CFR50, Appendix B Quality Assurance Standards.

**Ultimate Responsibility:** The top U.S. nuclear safety official, the Chairman of the NRC said earlier this month the operator of the idled San Onofre nuclear plant is ultimately responsible for ensuring the quality of equipment and work provided by vendors or its contractors. Addressing nuclear industry executives in Atlanta, Nuclear Regulatory Commission Chairman Allison Macfarlane touched upon challenges at the idled San Onofre nuclear station and highlighted the responsibilities of the plant license holder. "This obligation extends to the licensees' use of vendors and contractors," McFarlane said. "The licensee is ultimately responsible for the work done by their vendors and contractors to ensure they meet our quality assurance requirements." [Source: U-T San Diego November 7-2012]

**Question Number 1: Why the massive tube damage at SONGS?**

**More than 100 Replacement Steam Generators (RSGs) in the USA with Alloy 690 TT Tubes have been designed, fabricated and tested by Westinghouse, BWI and other vendors, including Fort Calhoun by**



**MHI. These steam generators have only had very few plugged tubes according to NUREG-1841 and Professor Dan Hirsch's September 12, 2012 Report. MHI has built more than 100 Steam Generators since 1970. Only Mihama Unit 2 SG built by MHI had a *single* tube rupture due to a displaced Anti Vibration Bar. The question is, why did the SONGS Replacement Steam Generators suffer so much severe degradation in such a short time? Is this the fault of SCE's in-house design team, their Performance Specifications coupled with their numerous design changes and or the MHI Fabrication/Testing Technology combined with Faulty Thermal-Hydraulic Computer Codes? The DAB Safety Team and the Public expected that SCE and their three NEI Qualified, "US Nuclear Power Plant Designers", Westinghouse, AREVA and MHI would arrive at a concise and clear answer (Meeting the NRC Quality Assurance requirements as stated by NRC Chairman Allison Macfarlane) to this puzzling question in the Unit 2 Return to Service Report.**

**Observations On Number 1: The SCE Cause Evaluation Report, Operational Assessments reports prepared by SCE, AREVA and Westinghouse, and MHI Technical reports *conflict and contradict* with each other on the causes and extent of degradation pertaining to the fluid elastic instability in SONGS Unit 2 Steam Generator Replacement Generators (RSGs) and Tube-to-AVB gaps in both Unit 3 and Unit 2 RSG's. MHI further states that specific causes that resulted in tubes being susceptible to fluid-elastic excitation are not yet completely known. Furthermore SCE has not plugged all the 2 tubes in one of the Unit 2 RSG's nor have they removed the Retaining Bars (RB's) as recommended by MHI in their latest NRC notification, issued after their preliminary report!**

**Operational Note On Number 1: Unit 2 was running at higher steam pressures than Unit 3 and lower thermal power than Unit 3. That is why the void fractions were lower than 98.5% and no fluid elastic instability occurred in Unit 2. AREVA, Westinghouse, MHI and SCE missed this key observation in the SCE Unit 2 restart Plan. At least one person working at SONGS spoke up about this fact but nobody listened to him and it was ignored because everybody in SCE was focused on blaming MHI to recover the insurance money and or absolving themselves of all blame. The DAB Safety Team will explain the probable reasons other than the ECT results for Unit 3's increased clearances between the anti-vibration bars and the tubes in their next Press Release.**

**Comments And Observations About Number 1: It is the *opinion* of the DAB Safety Team’s Expert Panel, former NRC Staff and SONGS Concerned Insiders that this Westinghouse Operational Assessment is *full of holes* based on incomplete inspection data, under-conservative computer modeling and is in effect, just “Smoke & Mirrors,” because:**

**(1) SCE Engineers have either not provided, or they are withholding important information from Westinghouse because of “The consequences of being Wrong, Terminated or Fired,”**

**(2) Due to competing and proprietary interests between Westinghouse and MHI, Westinghouse Engineers do not have all the MHI Manufacturing Details and are just guessing in their Deterministic Operational Analysis of Unit 2, the second worst Degraded Replacement Steam Generators in the Operating US Nuclear Fleet,**

**(3) Due to Time Pressure exerted by SCE, Westinghouse Staff did not have proper time for independent validation of all facts, documentation and data provided by SCE’s Engineers, in their original report.**

**(4) Since nobody knows what really happened, all the Parties have a shared interest to “Operate Unit 2 at reduced power as a nuclear “RSG Tube Wear Test Lab”.**

**UCS Observations: The Union of Concerned Scientists (UCS) has serious concerns about Southern California Edison’s (SCE) restart plans for San Onofre Unit 2. In a 10/12/2012 letter submitted to the Nuclear Regulatory Commission (NRC), David Lochbaum, Director, Nuclear Safety Project, identified the following issues:**

- **Unit 2 replacement steam generator 2SG89 has significantly more wear indications per number of supports than does [Unit 2] replacement steam generator 2SG88. Until the reason for this marked difference between the wear degradation for the Unit 2 replacement steam generators is understood, the operational assessment performed for future operation is suspect.**

- **Since all four replacement steam generators came from the same manufacturer, were of the same design, made of the same materials, assembled using the same procedures, and operated under nearly identical conditions in twin reactors, the reason for this marked difference is unclear...**

**[the] explanation is not well documented and therefore appears to be more convenient than factual.**

- **The document states that the owner will “administratively limit Unit 2 to 70% reactor power prior to a mid-cycle” outage to inspect the replacement steam generators. What are the legal and safety consequences if the reactor power were to increase to 75%, 85% or 100% power, advertently or inadvertently? The NRC has licensed San Onofre Unit 2 to operate at 100% power. What would legally prevent the owner from restarting Unit 2 and increasing its output to the NRC licensed limit? The NRC’s enforcement program includes sanctions when its regulations are violated, but nothing if promises are broken. If the NRC agrees that reactor operation at less than 100 percent power is warranted, it should enforce that reduction with an order or comparable legally enforceable document. However even that will not necessarily prevent its occurrence. Has NRC even considered that fact?**

- **Table 8-1 of Enclosure 2 and its accompanying text attempt to explain how operating Unit 2 at 70% power will prevent the tube-to-tube wear (TTW) experienced on Unit 3 by comparing it to an anonymous reactor (called Plant A). Reliance on one suspect data point (Plant A) is hardly solid justification for operation at 70% power being acceptable.**

- **There is no justification in this 80-plus-page document for an operating duration of 150 days.**

- **There are no legal means compelling the plant’s owner to shut down Unit 2 after 150 days of operation at or above 15% power.**

- A temporary nitrogen-16 radiation detection system will be installed prior to the Unit 2 startup. However, there is no commitment to use it after startup, or to keep it in service should it stop functioning. The detection system is proposed as a defense-in-depth measure, but there is no assurance it will be operated. Furthermore, it will NOT provide the necessary warning that tube rupture is eminent. It will only indicate that it is already occurring.
- Attachment 6 to Enclosure 2 has proprietary information redacted. Section 1.4 of Enclosure 2 states that the owner used AREVA, Westinghouse Electric Company LLC, and Intertec/APTECH to review the operational assessment. At least one of these companies manufactures replacement steam generators and would therefore be a competitor to Mitsubishi Heavy Industries (MHI), which made the replacement steam generators for San Onofre. If the owner did not withhold the proprietary information from MHI's competitors, why withhold it at all? If SCE did withhold the proprietary information from these reviewers, what is the value of their independent, but limited, review?

**Conclusions And A Final Question: The DAB Safety Team Agrees with NRC Chairwoman Allison Macfarlane that SCE is ultimately responsible for the work done by their vendors and contractors to ensure they meet our quality assurance requirements. Based upon the review of all Restart Documents and all the issues identified by David Lochbaum, The DAB Safety Team's Expert Panel along with their SONGS Concerned Insiders *opinion* that these reports are *full of holes* and based on incomplete inspection and or operational data, under-conservative computer modeling and represents *Smoke & Mirrors* which does not meet the NRC Chairwoman's Safety Definition nor the standards outlined in the 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants."**

**The Trillion Dollar Question is now, how can the NRC's Region IV in good faith, even consider having a November 30 Public Hearing, except to possibly give SCE a Billion Dollar Christmas present, by allowing them to restart their damaged Unit 2 without a 50.90 License Amendment Process by completely ignoring the safety of all those living in Southern California due to the potential of having a Trillion Dollar Eco-Disaster at San Onofre because of their already well documented massively damaged RSG tubes?**

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**Joosten, Sandy**

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**From:** Capt.D [captddd@gmail.com]  
**Sent:** Monday, November 26, 2012 12:57 PM  
**To:** mnes-pr@mnes-us.com  
**Cc:** CHAIRMAN Resource; Terrance Horner  
**Subject:** News Release: The DAB Safety Team agrees with MHI - News Release

Please forward to:

Mr. Kiyoshi Yamauchi

President and Chief Executive Officer

Mitsubishi Nuclear Energy Systems, Inc.

Head Office

1001 19th Street North,

Arlington, VA 22209, USA

Phone: 1-703-908-8040

Fax: 1-703-908-8041

Dear Mr. Yamauchi

## **PRESS RELEASE**

**The DAB Safety Team: November 21, 2012**

**Media Contact: Don Leichtling (619) 296-9928 or Ace Hoffman (760) 720-7261**

## **The DAB Safety Team Agrees With Newly Released MHI Data:**

### **Plug All Of SONGS Unsafe Tubes, Not Just Some**

The DAB Safety Team along with the support of an ever-growing number of SONGS Concerned Insiders and Whistleblowers, prepared the following analysis, which is consistent with the conclusions presented in the publicly available reports provided earlier on this subject by:

1. Fairewinds Associates Internationally Known Nuclear Consultant Arnie Gundersen and his team of Anonymous Industry insiders, who have had lengthy careers in the design, fabrication, and operation of nuclear steam generators.
2. Professor Daniel Hirsch and Internationally Known Nuclear Consultant Dale Bridenbaugh.
3. Publicly available posted documentation by Dr. Joram Hopenfeld, a retired engineer from the Office of Nuclear Regulatory Research and NRC's Advisory Committee on Reactor Safeguards (ACRS) report issued in February 2001, which substantiated many of Dr. Hopenfeld's concerns,
4. David A. Lochbaum, Director of the Nuclear Safety Project for the Union of Concerned Scientists (UCS).

**MHI Part 21 (10/05/2012) - Steam Generator Tube Wear Adjacent To Retainer Bars:** The following information was received via email: "Mitsubishi Heavy Industries, LTD (MHI) has identified steam generator tube wear for San Onofre Nuclear Generating Station. "The Steam Generator tube wear adjacent to the retainer bars was identified as creating a potential safety hazard. The maximum wear depth is 90% of the tube thickness. The cause of the tube wear has been determined to be the retainer bars' random flow-induced vibration caused by the secondary fluid exiting the tube bundle. Since the retainer bar has a low natural frequency, the bar vibrates with large amplitudes. This type tube wear could have an adverse effect on the structural integrity of the tubes, which are part of the pressure boundary. The plugging of the tubes that are adjacent to the retainer bars was performed. MHI has recommended to the purchaser to remove the retainer bars that would have the possibility of vibration with large amplitude or to perform the plugging and stabilizing for the associated tubes."

**SCE Unit 2 Restart Plan, Attachment 4, Page 9, Line 13, MHI States,** "In order to ensure the structural integrity of the tubes after restarting the plant, all tubes which have a potential for losing their integrity during the next operating period should be plugged and thermal power output of the plant should be decreased. Plugging for the Type 1 wear should include not only the tubes with the Type 1 (tube-to-tube) wear but also tubes which are susceptible to the Type 1 wear, for preventative reasons." Attachment 4, Page 82, Section 8.1.3, MHI states, " Tubes with wear indications adjacent to the retainer bars should be plugged regardless of the wear depth. Furthermore, all tubes that have a possibility to come in contact with the retainer bars should be preventatively plugged." SONGS Technical Specification states, "Structural integrity performance criterion: 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, and cool down and all anticipated transients included in the design specification) and design basis accidents.” General design criteria (GDC) 14, “Reactor Coolant Pressure Boundary (RCPB)” of Appendix A to United States Code of Federal Regulations 10 CFR Part 50, “Domestic Licensing of Production and Utilization Facilities,” states “The RCPB shall have “an extremely low probability of abnormal leakage...and gross rupture.”

Even at 70% power operations, if a steam line break outside containment were to occur in Unit 2, the depressurization of the steam generators with the failure of a main steam isolation valve to close would result in 100% void fraction in the entire U-Tube bundle. This condition of ZERO Water in the steam generators would cause fluid elastic instability (FEI) and flow-induced random vibrations. This adverse condition, in turn would result in hundreds of SG tube failures/ruptures due to tubes hitting each other because of extremely low tube clearances, NO in-plane support protection, and movement of retainer bars with large amplitudes due to low natural frequencies. With an undetermined amount of tube leaks/ruptures, approximately 60 tons of very hot high-pressure radioactive reactor coolant would leak into the secondary system. The release of this amount of radioactive primary coolant, along with an additional approximately 200 tons of steam in the first five minutes from a broken steam line would EXCEED the SONGS NRC approved safety margins and result in a nuclear meltdown like Fukushima in Southern California.

Many steam generator tube ruptures and steam line break events have occurred in the last 30 years at nuclear power plants throughout the world (See DAB Safety Team’s SONGS MSLB Analysis). In light of the Unit 3 Replacement Steam Generators (RSGs) unprecedented eight tube failures due to 99.6% steam voiding, narrow tube pitch to tube diameter ratio, low tube clearances and NO Designed "In-plane Fluid Elastic Instability support protection" and other tube ruptures/steam line break events, the DAB Safety Team agrees with MHI that all the Unit 2 Tubes would be susceptible to the Type 1 (tube-to-tube) failures/ruptures due to 100% steam voiding of the entire U-Tube Bundle in case of a Main Steam Line Break (MSLB). Therefore, to meet the SONGS Technical Specifications and GDC 14 of Appendix A to 10 CFR Part 50 for a MSLB and prevent a nuclear accident and reactor meltdown in California from cascading tube ruptures, *all Unit 2 RSG’s Tubes should be preventatively plugged before Unit 2 Restarts.* **In other words, the Unit 2 RSG’s in the “As Designed and Degraded Configuration” cannot be OPERATED at any “Power Levels” due to the substantial risk of nuclear meltdown described above.**



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