

Via E-mail Attachment and Post  
January 22, 2013

Peter Dietrich  
Senior Vice President & Chief Nuclear Officer  
Southern California Edison  
P.O. Box 128  
San Clemente, CA 92672

**Subject: Repairs of SONGS Units 2 and 3 Steam Generators**

Dear Mr. Dietrich:

This letter responds to your letter of January 8, 2013. Mitsubishi has done everything possible to be responsive to SCE's needs and to address the unfortunate situation with the SONGS steam generators. It is with a sense of great disappointment that we address the misstatements in your letter.

As you know, Section 1.17.1.3 of our Purchase Order states that "Defects discovered during the Warranty Period ... shall be repaired or replaced, in a mutually agreeable manner ... with due diligence and dispatch ...." Accordingly, since the issues with the RSGs were first discovered in early 2012, Mitsubishi has worked diligently and with dispatch to first discover the root cause of the tube wear, and then devise, analyze and test various repair/replacement options. As I advised in my December 14 response to your November 28 letter in which you first raised the "diligence and dispatch" language in asserting that Mitsubishi was not being sufficiently responsive, this is not a situation where a vendor can replace a component of its equipment with an off-the-shelf replacement, or where anyone in our industry had experience with the failure mode at work at SONGS. As I stated then, "the tube-to-tube wear ("TTW") observed at SONGS is a first-of-a-kind phenomenon never before experienced in an operating U tube steam generator. Evaluation of such first-of-a-kind phenomena is understandably more time consuming and involves more effort than does resolution of a known issue." Although you wrote again on December 19, expressing similar sentiments, you have never refuted the truth of the matter—that both Mitsubishi and SCE are addressing the first known instance of in-plane vibration causing TTW.

Moreover, on December 14 (the same day as my letter quoted above), my colleague Dr. Kaguchi presented Mr Avella with both a written and in-person presentation of the three repair/replacement options Mitsubishi believes are appropriate for SONGS. This presentation included a lengthy, detailed analysis of our study of the repair option, along with the schedule for that work, should it be selected as the "mutually agreeable" approach. Dr. Kaguchi also presented analyses and schedules for the two replacement options, again, both in writing and in person. At the meeting that day, Mr. Avella repeatedly declared that given the uniqueness of the problem at SONGS, any option, such as our repair option, that has not been field-proven and was only supported by calculations, was not a viable option and was unacceptable to SCE.

On December 19, Mr. Avella wrote Dr. Kaguchi, stating for the first time that SCE had been requesting "a final single recommendation" for the solution. Although Mr. Avella's letter references his November 8 and 13 letters in support of this request, neither of those letters sought a single recommendation.



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On the same day that Mr. Avella first requested our "final single recommendation," you wrote, asserting that "MHI does not have a repair plan despite the passage of many months." This was untrue, as five days earlier Dr. Kaguchi had provided a repair plan to Mr. Avella. Dr. Kaguchi's December 14 letter clearly stated that "Mitsubishi currently estimates that completion of the detail design, tooling and field implementation of the thicker AVB repair will require one year, not taking into account possible additional time that might be required for NRC review." Slide 67 of his presentation set forth our detailed repair schedule.

By letter dated December 20, Dr. Kaguchi responded to Mr. Avella's December 19 letter, again presenting the three options discussed in his December 14 letter. After noting Mr. Avella's strong objection to the repair option as voiced at the December 14 meeting, the December 20 letter set forth "Mitsubishi's Recommended Course of Action":

Mitsubishi concludes that both the "thicker AVB" repair and replacement of the entire tube bundle/entire SG are technically viable even though some additional evaluation is required. While both are technically viable, there are many other considerations – e.g., cost, schedule, licensing, plant license renewal and SCE's various stakeholder's acceptance among others – that affect the decision whether to implement the repair or the replacement of the entire bundle/entire SG. The repair can be accomplished in a shorter time period and at lower cost compared to replacement of the entire tube bundle/entire SG. However, replacement of the entire tube bundle/SG provides the ability to make more extensive design changes to address the tube support conditions and thermal hydraulic conditions that caused the TTW at SONGS, as requested by SCE.

Given Mr. Avella's clear disapproval of the repair option, it was obvious to Mitsubishi that the repair option would never be mutually agreeable, so Dr. Kaguchi's letter concluded with the statement that "in accordance with the Purchase Order, Mitsubishi agrees to the replacement option as the mutually agreeable remedy subject to negotiation and agreement of mutually acceptable terms and conditions."

Later on December 20, Mr. Avella met with Mitsubishi representatives. Although he was provided draft explanations of its analysis of the repair and tube bundle replacement options, including a 12 month schedule for accomplishing the repair, Mr. Avella insisted that the December 20 letter was inadequate; that Mitsubishi was required by contract to submit a single recommendation, not a discussion of the merits of several alternatives. Mr. Avella also stated that, if Mitsubishi chose to submit the repair option as the "final single recommendation", SCE would require extensive additional documentation including the final repair plan and field procedures which Mitsubishi understood would, as a practical matter, prevent the timely consideration of the repair option.

On December 21, Dr. Kaguchi sent another letter, stating our position that SCE's insistence upon a final single recommendation had no basis in the Purchase Order, and that based upon our understanding of SCE's evaluation criteria and the need to come to a mutual agreement, we recommended Option #3 (replacement of the tube bundle), subject to the negotiation of acceptable commercial terms.

Within hours of sending the December 21 letter, another meeting was held with Mr. Avella, in which he advised that he had a lengthy discussion with SCE's legal personnel, who pledged to provide Mitsubishi by December 24, with a clarification of the "final single recommendation" requirement, an explanation of SCE's legal definition of "mutually agreeable," and a written request for certain clarifications to our December 21 letter. Three weeks later, on January 11, we were advised that no such letter would be forthcoming.



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Finally, by letter of December 27, Mr. Kadokami of MHI formally responded to your letters of November 28 and December 19, setting forth many of the facts set forth above. Attached to this letter was a three page, summary history of Mitsubishi's efforts to work with and in parallel to SCE's engineers to study the problems and the potential solutions from early 2012 to the present. Based on the representations by Mr. Avella, Mitsubishi believed that Mr. Kadokami's letter along with Dr. Kaguchi's letters provided a basis for moving forward on resolving the SONGS situation.

Accordingly, we were extremely surprised to receive your January 8 letter which criticizes our selection of a tube bundle replacement option as not being consistent with our obligation to act with dispatch. As described above, Mitsubishi and SCE held numerous meetings to discuss repair or replacement options as a remedy and at no time did SCE inform us that replacement does not constitute an acceptable remedy due to "lack of dispatch". In fact, during these meetings the SCE representatives clearly indicated a strong technical preference for replacement over repair as the basis for a mutually agreeable remedy, recognizing that replacement would need much more time to implement than the repair option (on the order of 4 to 5 years).

Upon Mitsubishi's reluctant acknowledgement that the requirement for mutual agreement precluded further consideration of the repair option, your letter now asserts the replacement option "does not constitute a repair or replacement with dispatch." Your letter concludes that it is "clear that any contractual limitations on liability are no longer applicable" and that you will look to Mitsubishi to absorb "all resulting damages." Mitsubishi is extraordinarily disappointed by this misuse of our correspondence relating to the serious matter of repair or replacement of the SONGS steam generators in an attempt to create an argument for the unsupportable theory to invalidate the limitation of liability that conflicts with the position taken by SCE's Steam Generator Replacement Team. I leave it to the lawyers to explain why the limitation of liability provision found in every nuclear power plant contract has always been held to bind the parties and will bind the parties here.

To date, Mitsubishi has been working cooperatively, diligently and "with dispatch" with SCE to identify a mutually agreeable remedy that best serves the facility as contemplated by all the provisions of the Purchase Order. However, your January 8 letter compels us to question what direction SCE intends to take going forward. We believe it is now imperative that SCE and Mitsubishi meet and agree on a process for going forward at SONGS. At this meeting the representatives of our companies should establish, based on a NDA issued prior to that meeting, a framework which will allow Mitsubishi to continue to meet its obligations to SCE under the Purchase Order without compromising either party's position in any potential future arbitration. We recommend that Russell Swartz contact our counsel Ted Baumgartner to set up this meeting as soon as possible.

Sincerely yours,

Kiyoshi Yamauchi  
President and CEO  
Mitsubishi Nuclear Energy Systems, Inc.

cc: E. Kadokami (MHI)

pressure condition. Measurements to ensure compliance with this requirement shall be made using lithium or sodium tracer technique.

- 1.16.5.6 **Reactor Coolant Flow Rate:** The reactor coolant total flow rate with the RSGs installed shall not exceed one hundred six point five (106.5%) percent of the original volumetric design flow rate at  $T_{\text{cold}} = 540.9^{\circ}\text{F}$  and one hundred (100%) percent reactor power pursuant to Section 3.8.1.6. These measurements shall be made using instrumentation installed in the Plant Site.
- 1.16.5.7 **Primary-to-Secondary Leakage:** No detectable leakage shall be observed with the primary side at two thousand two hundred fifty (2250) psia, and the secondary side at atmospheric pressure.
- 1.16.5.8 **Blowdown Capacity:** The RSG continuous blowdown capacity shall be no less than two (2%) percent of the feedwater flow at full one hundred (100%) percent power for each RSG. The measurements shall be made using instrumentation installed in the Plant Site.

## 1.17 WARRANTY

The Supplier warrants that the Apparatus shall meet all the requirements of the Specification, including the Applicable Standards.

### 1.17.1 Design, Workmanship and Material

- 1.17.1.1 The Supplier warrants that the Apparatus shall be free from Defects.
- 1.17.1.2 The warranty period for discovery of Defects in an RSG Unit (and associated portion of the Apparatus) (which, for purposes of this Section 1.17 shall be considered part of the RSG Unit) shall (subject to Section 1.16.4), commence upon Acceptance of the RSG Unit and continue for twenty (20) years unless this period is extended for an additional ten (10) year period by EMS's exercise of an option that is described in the Purchase Order (such period as extended, "Warranty Period"). If, during the Warranty Period, the RSG Unit is not available for use due to failure to meet the warranty requirements, such time of unavailability shall not be counted as part of the Warranty Period. The Warranty Period for such repaired or replaced Work, as well as those portions of the RSG Unit damaged by the applicable Defect, shall begin upon Acceptance of such repaired or replaced Work and shall continue for a duration equivalent to the remainder of the original warranty period specified in this Section 1.17.1.2, except that, where the remaining term of the Warranty Period is less than three (3) years, then the Warranty Period specified herein shall extend so the Warranty Period is three (3) years for such repair or replacement of Work that is subject to this provision. No warranty Work performed under this Section 1.17 shall be considered complete until the Edison Representative reviews and accepts such warranty Work.
- 1.17.1.3 Any Defect discovered during the Warranty Period, and damage to any other part of the Apparatus or other property resulting directly from such Defect, shall be repaired or replaced, in a mutually agreeable manner, by the Supplier at its sole expense with due diligence and dispatch by repairing or

replacing (as appropriate) any defective part and other portion of the Work affected by such Defect. Supplier shall be responsible for all costs and expenses associated with such repair or replacement, including but not limited to (i) any necessary adjustments, modifications, change of design, removal, repair, replacement or installation of the Apparatus, and (ii) all parts, materials, tools, equipment, transportation charges and labor as may be necessary for such repair or replacement, except those specified in Section 1.17.7.4.

- a) Where practical, the Supplier shall perform warranty Work at the Jobsite to minimize the down time of the Apparatus and shall comply with the Jobsite work rules. Such Work shall be performed on a straight time basis; however, if the Edison Representative requests such Work to be performed on an overtime basis, then EMS shall reimburse the Supplier for the premium portion of such overtime.
- b) Should the Supplier fail to take action to correct any Defect within two (2) days after upon notification to the Supplier or fails to diligently continue performing such correction to completion thereafter, then the Edison Representative may perform or EMS or Edison may have performed such necessary warranty work and backcharge the Supplier for such direct costs for repair or replacement and/or declare Supplier to be in default pursuant to Section 1.24. Such EMS or Edison performed warranty work shall not be construed as to void the warranty provisions and such warranty work shall be subject to Supplier's warranty obligations hereunder as if such warranty work had been performed by Supplier.
- c) If Supplier is obligated to repair or replace the Apparatus or any part thereof under this Section 1.17, Supplier will undertake a technical analysis of the problem and correct the "root cause" unless Supplier can demonstrate to the Edison Representative's satisfaction that there is not a risk of the reoccurrence of such problem.

#### 1.17.2 Performance

- 1.17.2.1 The Supplier warrants that the Apparatus shall meet the additional performance standards set forth in the following subsections of this Section 1.17.2.
- 1.17.2.2 Tubes Plugged Due To Degradation: Subject to Supplier's rights as expressly provided in Section 1.45, the tubes of each RSG shall be designed and fabricated such that they remain in service throughout the Warranty Period specified in Section 1.17.1.2. During the first ten (10) years of the Warranty Period, the Supplier shall be responsible for the cost of preventive maintenance or removal from service (by plugging and/or stabilization) of the tubes within each RSG as required by the SONGS Technical Specifications (or other governing document which describes Edison's commitment to the NRC with respect to tube preventive maintenance or removal from service). Thereafter, EMS shall bear the cost of the first ten (10) tubes per RSG that require plugging in the eleventh (11th) year of the Warranty Period and Supplier shall bear the cost of any tube thereafter that requires plugging that