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| Part 21 (PAR)   |   | Event #  | 47990                        |
|---|---|--|------------------------------|
| <b>Rep Org:</b> MITSUBISHI HEAVY INDUSTRIES, LT<br><b>Supplier:</b> MITSUBISHI HEAVY INDUSTRIES, LT   | D. <b>Ev</b>                                | ion Date / Time: 04/19/2012 12<br>ent Date / Time: 02/13/2012<br>st Modification: 06/04/2012 | 2:33 (EDT)<br>(EST)          |
| Region:<br>City:<br>County:<br>State:   | Docket #:<br>Agreement State:<br>License #: | No   |                              |
| NRC Notified by: MIKE SCHULTZ<br>HQ Ops Officer: HOWIE CROUCH<br>Emergency Class: NON EMERGENCY<br>10 CFR Section:<br>21.21(a)(2) INTERIM EVAL OF DEVIATION |   | CHRISTOPHER CAHILL<br>STEVEN VIAS<br>DAVE PASSEHL<br>HEATHER GEPFORD<br>PART 21 GRP (EMAIL)  | R1DO<br>R2DO<br>R3DO<br>R4DO |

# PART 21 - STEAM GENERATOR TUBE WEAR ADJACENT TO RETAINER BARS

The following information was obtained from Mitsubishi Heavy Industries, LTD on April 19, 2012 was inadvertently added to Event Notification #47833 as an update to that event. The vendor's intent was to issue two interim reports; one for San Onofre Nuclear Generating Station (SONGS) Unit 2 and one for SONGS Unit 3. The information was obtained via fax:

"On January 31, 2012, San Onofre Unit 3 shut down due to indications of a steam generator tube leak. Steam generator tube inspections confirmed one small leak on one tube in one of the two steam generators. Continuing inspections of 100% of the steam generator tubes in both Unit 3 steam generators discovered unexpected wear, including tube to tube as well as tube to tube support structural wear. Inspection, testing, and analysis of SG tube integrity in both Unit 3 SGs is ongoing. In-situ pressure testing identified eight Unit 3 SG tubes that did not meet the target performance criteria in Technical Specification for tube integrity. One of the failed tubes was the leaking tube that required the Unit 3 shutdown.

"Discovery date: February 21, 2012

"Evaluation completion schedule date: August 31, 2012"

Interim Report: U21-019-IR Reference Document: UET-20120105

Original notifications (per EN# 47833) were made to R1DO (Joustra), R2DO (Nease), R3DO (Peterson), R4DO (O'Keefe), and Part 21 Group via email.

IE19 IRR

| Part 21 (PAR)<br>Notified R1DO (Cahill), R2DO (Vias), R3DO (Passehl), R4DO (Gepford) and Part 21 Groups                        | Event #      | 47990   |
|--|--------------|---------|
| * * * UPDATE FROM MITSUBISHI HEAVY INDUSTRIES, LTD VIA FAX ON 6/4/12 AT 1145   |              |         |
| The vendor reported that eight Unit 3 SG tubes did not meet the target performance criteria Specifications for tube integrity. | in Technical |         |
| Notified R1DO (Cahill), R2DO (Vias), R3DO (Passehl), R4DO (Gepford) and Part 21 Groups   |              |         |
| ***************************************  | *******      | ******* |

## MITSUBISHI HEAVY INDUSTRIES, LTD.

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555-0001 Ref; UET-20120105 Revision 1 Date: June 1, 2012

# Subject: Interim Report of Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)

Mitsubishi Heavy Industries, LTD. (MHI) has identified steam generator tube-to-tube wear during first cycle after steam generator replacement.

The following information is provided pursuant to the requirements of 10 CFR 21 to submit an interim report on issues for which the evaluation will not be completed within 60 days of discovery.

An interim report on the evaluation is attached, specifically; Interim Report No. U21-019-IR Revision 1, where revisions at U21-019-IR Revision 1 are;

1) Changed "title"

2) Changed "Nature of Deviation" according to title change

Those MHI customers potentially affected by this issue have been notified and will receive a copy of this interim report.

Yours very truly,

Ei Kadokaml

Senior Vice President Deputy Head of Nuclear Energy Systems Head of Kobe Shipyard & Machinery Works Mitsubishi Heavy Industries, Ltd. Attachment to UET-20120105 Revision 1

Interim Report U21-019-IR Revision 1

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Subject: Interim Report of evaluation pursuant to 10 CFR 21.21 (a) (2)

Title: Steam generator tube to tube wear

## Identification of Basic Component:

Replacement Steam Generators for San Onofre Nuclear Generating Station Unit 3

## **Basic Component Supplied by:**

Mitsubishi Heavy Industries, LTD.

## Nature of Deviation:

On January 31, 2012, San Onofre Unit 3 shut down due to indications of a steam generator tube leak. Steam generator tube inspections confirmed one small leak on one tube in one of the two steam generators. Continuing inspections of 100% of the steam generator tubes in both Unit 3 steam generators discovered unexpected wear, tube to tube wear.

In-situ pressure testing identified eight Unit 3 SG tubes that did not meet the target performance criteria in Technical Specification for tube integrity. One of the falled tubes was the leaking tube that required the Unit 3 shutdown.

Discovery Date: February 21, 2012

Evaluation completion schedule date: August 31, 2012