

Part 21 (PAR)

Event # 47833

<b>Rep Org:</b> MITSUBISHI HEAVY INDUSTRIES, LTD.		<b>Notification Date / Time:</b> 04/13/2012 15:58 (EDT)	
<b>Supplier:</b> MITSUBISHI HEAVY INDUSTRIES, LTD		<b>Event Date / Time:</b> 02/21/2012 (EDT)	
<b>Last Modification:</b> 09/07/2012			
<b>Region:</b> 1	<b>Docket #:</b>		
<b>City:</b> ARLINGTON	<b>Agreement State:</b>		Yes
<b>County:</b>	<b>License #:</b>		
<b>State:</b> VA			
<b>NRC Notified by:</b> EI KADOKAMI	<b>Notifications:</b> BLAKE WELLING	R1DO	
<b>HQ Ops Officer:</b> JOHN KNOKE	KATHLEEN O'DONOHUE	R2DO	
<b>Emergency Class:</b> NON EMERGENCY	DAVID HILLS	R3DO	
<b>10 CFR Section:</b>	VINCENT GADDY	R4DO	
21.21(a)(2) INTERIM EVAL OF DEVIATION	PART 21 GROUP	EMAIL	

**PART 21 INTERIM REPORT - STEAM GENERATOR TUBE WEAR**

This interim Part 21 is in regard to San Onofre Nuclear Generating Station, Unit 2, Steam Generator replacement.

"During the first refueling outage following steam generator replacement, eddy current testing identified ten total tubes with depths of 90 to 28 percent of the tube wall thickness. Some of the affected tubes were located adjacent to retainer bars. The retainer bars are part of the floating anti-vibration bar (AVB) structure that stabilizes the u-bend region of the tubes.

"Other tubes in the two steam generators had detectable wear associated with support points elsewhere in the AVB structure. Each steam generator has 9727 tubes with an 8 percent (778 tubes) design margin for tube plugging.

"Discovery Date: February 13, 2012

"Evaluation completion schedule date: May 31, 2012"

"Those Mitsubishi Heavy Industries customers potentially affected by this issue have been notified and will receive a copy of this interim report."

Reference Document: UET-20120089  
Interim Report No: U21-018-IR (0)

Notified R1DO (Joustra), R2DO (Nease), R3DO (Peterson), R4DO (O'Keefe), and Part 21 Group via email.

*TE19  
NRR*

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\*\*\* UPDATE FROM MITSUBISHI HEAVY INDUSTRIES, LTD VIA FAX ON 6/4/12 AT 1145 EDT \*\*\*

The vendor changed the number of tubes identified with wear depths of 90 to 28 percent from ten tubes to six tubes and only some of the tubes were adjacent to retainer bars.

Notified R1DO (Cahill), R2DO (Vias), R3DO (Passehl), R4DO (Gepford) and Part 21 Groups via email.

\*\*\* UPDATE FROM MITSUBISHI HEAVY INDUSTRIES, LTD VIA FAX ON 9/7/12 AT 1539 EDT \*\*\*

"MHI evaluated that the deviation contains a reportable defect for San Onofre Nuclear Generating Station Unit 2 and 3."

Notified R4DO (Gaddy) and Part 21 Reactor Group via email.

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**MITSUBISHI HEAVY INDUSTRIES, LTD.**

16-5, KONAN 2-CHOME, MINATO-KU

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Ref: UET-20120201 Rev.0  
Date: September 7, 2012

**Subject: Notification of a defect under 10 CFR 21.21(d)(3)(I)**

**1. Interim Reports and Evaluation Results**

Mitsubishi Heavy Industries, LTD (MHI) has identified steam generator tube wear for San Onofre Nuclear Generating Station. MHI had generated the following two interim reports for these tube wear and submitted them to U.S. Nuclear Regulatory Commission (NRC). MHI completed evaluation of a defect.

**Interim Report 1** (No.U21-018-IR Revision 1 with a letter UET-20120089 Revision 1)

**Title:** Steam Generator tube wear adjacent to retainer bars

**Evaluation Result:**

MHI evaluated that the deviation contains a reportable defect for San Onofre Nuclear Generating Station Unit 2 and 3.

**Interim Report 2** (No.U21-019-IR Revision 1 with a letter UET-20120105 Revision 1)

**Title:** Steam Generator tube to tube wear

**Evaluation Result:**

MHI evaluated that the deviation contains a reportable defect for San Onofre Nuclear Generating Station Unit 2 and 3.

**2. The written report**

The written reports pursuant to 10 CFR 21.21 (d)(4) will be submitted to NRC by October 6, 2012.

Yours very truly,

Ei Kadokami

Senior Vice President

Deputy Head of Nuclear Energy Systems

Head of Nuclear Energy Systems

Head of Kobe shipyard & Machinery Works

Mitsubishi Heavy Industries, Ltd.