(EDT)

Part 21 (PAR) Event # 47833

Notification Date / Time: 04/13/2012 15:58

Supplier: MITSUBISHI HEAVY INDUSTRIES, LTD

Last Modification: 04/13/2012

Region: 1

City: ARLINGTON

Agreement State: Yes

County:

State: VA

NRC Notified by: EI KADOKAMI Notifications: BLAKE WELLING R1DO **HQ Ops Officer:** JOHN KNOKE KATHLEEN O'DONOHUE R2DO **Emergency Class: NON EMERGENCY** DAVID HILLS R3DO 10 CFR Section: VINCENT GADDY R4DO INTERIM EVAL OF DEVIATION PART 21 GROUP 21.21(a)(2) **EMAIL** 

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

Rep Org: MITSUBISHI NUCLEAR ENERGY SYSTEMS

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 ubend 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, 2010"

"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)

> IEIR NRA



1001 19<sup>th</sup> Street North Arlington, VA 22209 Main: 703.908.8040 Fax: 703.908.8041

# Fax

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Phone: 30	1816 510	ð	Date:	4-13-1	2
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# MITSUBISHI HEAVY INDUSTRIES, LTD.

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555-0001 Ref: UET-20120089 Date: Apr. 10, 2012

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

Mitsubishi Heavy Industries, LTD. (MHI) has identified tubes with depths of 90% to 28% of tube wall thickness during the first refueling outage.

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. U21-018-IR,

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

Yours very truly;

Ei Kadokami

Senior Vice President

Deputy Head of Nuclear Energy Systems Head of Kobe Shipyard & Machinery Works Mitsubishi Heavy Industries, Ltd.

#### Attachment to UET-20120089

## Interim Report U21-018-IR (0)

1/1

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

Title: Steam generator tube wear after first cycle operation (San Onofre 2)

# Identification of Basic Component:

Replacement Steam Generators for San Onofre Nuclear Generating Station Unit 2

### Basic Component Supplied by:

Mitsubishi Heavy Industries, LTD.

#### Nature of Deviation:

During the first refueling outage following steam generator replacement, eddy current testing identified ten total tubes with wear 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