Part 21 (PAR) Event # 48745

Rep Org: DRESSER-RAND		**Notification Date / Time:** 02/12/2013 16:52	(EDT)
Supplier: DRESSER-RAND		**Event Date / Time:** 02/01/2013	(EST)
		Last Modification: 03/11/2013	
Region: 1	**Docket #:**		
City: WELLSVILLE	**Agreement State:**	Yes	
County:	**License #:**		
State: NY			
NRC Notified by: D. G. MARTIN	**Notifications:**	ANTHONY DIMITRIADIS	R1DO
HQ Ops Officer: DONALD NORWOOD		BOB HAGAR	R4DO
Emergency Class: NON EMERGENCY		PART 21 RX GROUP	E-MAIL
10 CFR Section:			
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE			

PART 21 REPORT - DEFECTIVE RAW MATERIAL USED TO MANUFACTURE VALVE STEMS

Dresser-Rand is reporting that one of its vendors supplied annealed material instead of the specified heat-treated material. Dresser-Rand used the defective raw material to manufacture valve stems for Terry Type Emergency Feedwater pump drive turbines. Dresser-Rand has verified that the annealed material is not acceptable for the finished product.

The two customers (Wolf Creek Nuclear Plant and Callaway Nuclear Plant) that received the affected parts have been notified of this issue and have confirmed that the components in question are not in service at their facilities. The remaining material and affected parts have been quarantined at the Dresser-Rand plant in Wellsville, NY.

All questions should be addressed to:
Joe Menichino
Manager, Navy/Nuclear Product Engineering
37 Coat Street
Wellsville, New York, 14895
Phone: (585) 596-3406
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* * * UPDATE FROM JOE MENICHINO TO CHARLES TEAL ON 3/11/13 AT 1614 EDT * * *

The following was excerpted from a facsimile received from Dresser-Rand:

"DESCRIPTION OF DEFECT OR NON-COMPLIANCE

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NRR

Part 21 (PAR) Event # 48745

"Specific designs of steam turbine control valve stems are made from heat treated ASM 5663M Inconel Bar raw material. Certifications associated with heat numbers of certain inventory of this material indicate that the material vendor incorrectly supplied material in an annealed condition (AMS 5662M).

"POTENTIAL SAFETY HAZARD OR NON-COMPLIANCE

"Valve stems are used to control steam turbine speed and power. The valve stems must be free to move within the guiding assembly during operation. Stems are made using materials that have the correct material properties to reduce the risk of failure. The use of inconel raw stock in an annealed condition is unacceptable for steam turbine valve stems due to the risk of unacceptable wear and strength characteristics which could lead to sticking or tensile failure in the mating guide bushings within the valve assembly.

"ADVICE TO EFFECTED CLIENT RELATED TO THIS REPORT

"For those affected sites identified, locate and return the material to Dresser-Rand immediately."

Affected facilities include Point Beach, Clinton, Wolf Creek, Cooper, Callaway, San Onofre, and Prairie Island.

Notified R1DO (Dentel), R3DO (Dickson), R4DO (Powers), and the Part 21 Group via email.

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DRESSER-RAND

Wellsville Operations
37 Coats Street
P.O. Box 592
Wellsville, NY 14895
PH: 716/593-1234

March 11, 2013

To: Nuclear Regulatory Commission

Reference - 10CFR Part 21 Reporting of Defects - Final Report

Please accept transmittal of the attached 10CFR Part 21 Final Report Number 45.

Please call if additional information or discussion is required.

Joe Meniehino,
MGR Navy Nuclear Product Engineering
Dresser-Rand Government Business Unit
585-596-3406 office
585-307-4125 cell

FINAL REPORT 10CFR PART 21
REPORT OF A POTENTIAL SAFETY HAZARD

Report No. 45

PREPARED BY:	J.A. Menichino 3/14/13	File No:	None
TITLE:	Mgr, Navy/Nuclear Product Engineering	Serial No:	Various
PART NAME:	Inconel Valve Stem	Type:	None
		Ref:	None
		DR Part No:	See List, Pg. 2
		DR Dwg No:	See List, Pg. 2
		Rev. Level:	See List, Pg. 2

1. DESCRIPTION OF DEFECT OR NON-COMPLIANCE

Specific designs of steam turbine control valve stems are made from heat treated AMS 5663M Inconel Bar raw material. Certifications associated with heat numbers of certain inventory of this material indicate that the material vendor incorrectly supplied material in an annealed condition (AMS 5662M).

2. POTENTIAL SAFETY HAZARD OR NON-COMPLIANCE

Valve stems are used to control steam turbine speed and power. The valve stems must be free to move within the guiding assembly during operation. Stems are made using materials that have the correct material properties to reduce the risk of failure. The use of inconel raw stock in an annealed condition is unacceptable for steam turbine valve stems due to the risk of unacceptable wear and strength characteristics which could lead to sticking or tensile failure in the mating guide bushings within the valve assembly.

3. NUMBER AND LOCATION OF ALL COMPONENTS

Sheet 2 defines all affected Dresser-Rand part numbers. It also identifies all end users and quantities of the affected parts that were shipped during the period that the raw material in question was in the Dresser-Rand system.

4. CORRECTIVE ACTION BY: DR Staff | COMPLETED BY See dates below

1- Identify and isolate all affected raw material. Competed 2-15-13 by DR QA.
2- Revise Part Inspection records to include a hardness verification check on the finished parts. Completed 2-8-13 by DR QA
3- Revise Part Dedication records to include a hardness verification check on the finished parts. Completion due date 3-15-13. Action by DR N/N Engineering
4- Revise DR Material Specification to include a hardness verification of the raw material during receipt inspection. Completion due date 3-15-13. Action by DR Metallurgy and N/N Engineering.
5- Notify all affected customers (ref sheet 2) and recall affected parts. Completed 2-25-13 by DR Aftermarket
6- Issue internal DR Corrective Actions for Certification Review Process (CA2013002375) and Raw Material Control Process (CA2013002377). Initiated 2-22-13 and 2-26-13 by DR QA
7- Issued DR Supplier Quality Corrective Action (20130208-2 and 20130208-1) to the raw material supplier. Initiated 2-8-13 by DR SCM

5. ADVICE TO EFFECTED CLIENT RELATED TO THIS REPORT

For those affected sites identified on sheet 2 of this report, locate and return the material to Dresser-Rand immediately.

Potential Affected Part Numbers:

800777-001	800743-001
800768-701	801061-701
800768-702	800741-701
800858-001	800744-001
800740-701	800745-001
800746-001	800748-001
800739-001	800742-001

Contracts and Part Numbers of Affected Parts that must be Recovered:
(Based on the 2/20/12 non-conformance start date)

1- **Customer and DR Order No. : Point Beach C34587**
PN: 801061-701 Qty 1 (A292081)
PN: 801061-701 Qty 1 (A292082)
Status- Not shipped, on hold at DR Wellsville

2- **Customer and DR Order No. : Clinton 513114**
PN: 800858-001 Qty 2 (A296109)
PN: 800858-001 Qty 1 (N17338)
Status: Shipped, Customer notified and recovery in process

3- **Customer and DR Order No. : Wolf Creek C34590**
PN: 800858-001 Qty 1 (N16958)
PN: 800858-001 Qty 1 (N16445)
Status- Shipped, Customer notified and recovery in process

4- **Customer and DR Order No. : Cooper 478937**
PN: 801061-701 Qty 1 (N16541)
PN: 801061-701 Qty 1 (N16540)
Status- Not shipped, on hold at DR Wellsville

5- **Customer and DR Order No. : ATC/Callaway CSS 515969**
PN: 801743-001 Qty 1 (N16594)
Status- Shipped, Customer notified and recovery complete

6- **Customer and DR Order No. : ATC/ San Onofre CSS 522675**
PN: 800858-001 Qty 1 (N16782)
Customer notified and requested to return matl. under CSS 542255

7- **Customer and DR Order No. : ATC/Praire Island CSS 531682**
PN: 800740-701 Qty 1 (N17197)
Customer notified and requested to return matl. under CSS 542268