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P21 M1350

DRESSER-RAND
WELLSVILLE OPERATIONS
WELLSVILLE, NY 14895
NRC CORRESPONDENCE

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Date: 10/24/01

To: NRC Operations Center

Fax: (301) 816-5151

From: George Hermann
Nuclear Product Engineer

Phone: (716) 596-3684

Fax: (716) 596-3369

Subject: - "Verbal" Notification by facsimile of a Potential Safety Hazard
10CFR Part 21 Initial Report #41

A copy of approved 10CFR Part 21 Initial Report No. 41 is provided as pages 2 and 3 of this facsimile transmittal (complete transmittal is 3 pages).

Dresser-Rand Wellsville Operations will complete and submit a written Final Report by no later than November 21, 2001.

Questions relating to this 10CFR Part 21 Report may be directed to myself, at the number above, or to Ed Grandusky at (716) 596-3631.

Regards,



DRESSER-RAND - WELLSVILLE OPERATIONS INITIAL REPORT 10CFR PART 21 REPORT OF A POTENTIAL SAFETY HAZARD

Report No. 41
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*Gimpel Valve (Tyco)
mfg*

PREPARED BY: <u>George Hermann</u>	Date: <u>10/22/2001</u>
TITLE: <u>Nuclear Product Engineer</u>	File No: <u>Various</u>
PART NAME: <u>Terry Turbine Trip & Throttle</u>	Serial No: <u>See Below</u>
<u>Valve Screw Spindle (Gimpel)</u>	Type: <u>GS & ZS Frames</u>
	Part No: <u>105245A18</u>
	Dwg. No: <u>105245A</u>
	Rev. Level: <u>J</u>

DESCRIPTION OF DEFECT:

Material substitution of grade 1212 Steel in place of grade 1018 carbon steel specified by design.

ENGINEERING EVALUATION & RECOMMENDATIONS:

Following the failure of an installed Trip/Throttle valve screw spindle on the Catawba unit #2 AFW Pump Turbine (Terry Turbine S/N 40096A or B) on May 25, 2000, the material of the failed screw was analyzed and found to be Grade 1212 steel. Gimpel gave verbal confirmation that the screw material was incorrect (Grade 1213 and 1215 steel) at the Terry Turbine Users Group meeting on July 18, 2001. Gimpel has traced the supplied material to a single lot of approximately 50 original screw spindles manufactured in 1974, and has identified the originally affected Trip & Throttle valve serial numbers as 74-12201-01 to 74-12244-02, 78-13136-01, 78-13215-01, and 78-13091-01. Written confirmation of this defect and a listing of affected valves was received by Dresser-Rand 10/11/01.

Following this incident, additional information was received indicating that a screw spindle installed in Palo Verde Unit 1 was found cracked in 1992, and was determined to be grade 1213 steel.

Dresser-Rand tested the material of a functional screw spindle removed from an in-house test valve (Gimpel serial number 74-12243) and determined the material was grade 1212.

It is unknown whether the material substitution was a contributing factor in the failures of the screw spindles at these sites. The trip valves in question have been in operation for many years, and although the material used is less desirable in this application than the design specified material, the limited number of failures indicates that the immediate risk of continued operation is minimal. It is acknowledged however, that a substantial safety hazard may exist due to this defect in that failure of this component can result in steam isolation preventing the emergency feedwater turbine from performing its safety-related function.

Recommendations:

- 1) Units using Gimpel T&T valves in the serial number series listed above which may have the original Screw spindle installed should replace their screw spindles at the next maintenance opportunity. The original spindles should be destroyed.
- 2) It is additionally recommended that any Gimpel screw spindles in-stock or in-service which may have been manufactured in the 1974-75 timeframe be treated as suspect and be tested to confirm that the material is correct (Grade 1018 carbon steel). *Gimpel*

Evaluation/Recommendation Prepared By: *George Hermann* **GEORGE HERMANN**
 Title: Nuclear Product Engineer Date: 10-22-01

Approved By: *D. R. Manichio*
 Title: *MANAGER, NPP, PROJECT ENGINEERING* Date: 10/22/01

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DISPOSITION, CHECK ONE:

- Yes, this constitutes a safety hazard and requires a Final Report be prepared (EF-066)
- No, this does not constitute a safety hazard and does not require any further reporting.

Reviewed by D-R Wellsville Responsible Officer:

Signature: *W. M. Barber*

Title: *V.P. & General Manager - Wellsville* Date: *10/22/01*

RETURN TO MANAGER NUCLEAR PRODUCT ENGINEERING