

**Coltec Industries**

**Fairbanks Morse  
Engine Division**  
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November 11, 1998

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

File No. 98-001

Subject: FM-Alco 251 Engine, Wrist Pin Assembly, Catalog No.: 2420021-2

On November 11, 1998, Coltec Industries, Fairbanks Engine Division (FMED), became aware of a potential safety hazard associated with the wrist pin assemblies for FM-Alco 251 engines. The wrist pin assembly consists of a wrist pin and a sleeve fitted in the bore of the wrist pin and held in place by rolling each end which causes a tight friction fit. The sleeves of the subject wrist pin assemblies were supplied with an incorrect material, which is not suitable for rolling - expansion. Therefore, the friction fit between the pin and the sleeve may not be sufficient, which could cause the sleeve to become loose and possibly contact the liner. A drawing of the wrist pin assembly is attached.

Corrective actions have been taken to prevent recurrence, which include no longer using the supplier of the defective wrist pins, and retraining the Receipt Inspectors and the Quality Assurance Supervisor to perform proper inspections and reviews of certifications.

The only affected utility is Consumers Power - Palisades, which received a total of 36 wrist pin assemblies between 1995 and 1996. It should be noted that no failures have occurred to date and the problems with the wrist pin assemblies occurred in commercial applications after many thousands of hours of cyclic operation. FM-Alco 251 engines in nuclear applications are not typically subjected to this type of operation. However, it is recommended that the subject wrist pins be replaced with pin assemblies made with the correct sleeve material.

Sincerely,

James C. Golding  
Senior Quality Assurance Engineer

Cc:  
Terry Gill  
Mary Armfield  
Ted Stevenson

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PDR ADDCK 05000255  
S PDR

General Information or Other (GEN)

Event # 35030

|                                       |   |
|---------------------------------------|---|
| <b>Rep Org:</b> COLTEC INDUSTRIES     | <b>Notification Date / Time:</b> 11/13/1998 15:45 (EST) |
| <b>Licensee:</b> COLTEC INDUSTRIES    | <b>Event Date / Time:</b> 11/13/1998 14:45 (CST)        |
|                                       | <b>Last Modification:</b> 11/13/1998                    |
| <b>Region:</b> 3                      | <b>Docket #:</b>  |
| <b>City:</b> Beloit                   | <b>Agreement State:</b> No                              |
| <b>County:</b>                        | <b>License #:</b>                                       |
| <b>State:</b> WI                      |   |
| <b>NRC Notified by:</b> James Golding | <b>Notifications:</b> GEOFFREY WRIGHT R3                |
| <b>HQ Ops Officer:</b> JOHN MacKINNON | VERN HODGE NRR  |
| <b>Emergency Class:</b> NON EMERGENCY |   |
| <b>10 CFR Section:</b><br>21.21       | UNSPECIFIED PARAGRAPH                                   |

Coltec Industries, Fairbanks Engine Division (FMED) became aware of a potential safety hazard associated with the wrist pin assemblies of FM-Alco 251 engines. Only affects Palisades Nuclear Power Plant.

10 CFR PART 21 REPORT


On November 11, 1998, Coltec Industries, Fairbanks Engine Division (FMED), became aware of a potential safety hazard associated with the wrist pin assemblies for FM-Alco 251 engines. The wrist pin assembly consists of a wrist pin and a sleeve fitted in the bore of the wrist pin and held in place by rolling each end which causes a tight friction fit. The sleeves of the subject wrist pin assemblies were supplied with an incorrect material, which is not suitable for rolling - expansion. Therefore, the friction fit between the pin and the sleeve may not be sufficient, which could cause the sleeve to become loose and possibly contact the liner.

Corrective actions have been taken to prevent recurrence, which includes no longer using the supplier of the defective wrist pin, and retraining the Receipt Inspectors and the Quality Assurance Supervisor to perform proper inspections and reviews of certifications.

Consumers Power - Palisades is the only utility, which received a total of 36 wrist pin assemblies between 1995 and 1996. It should be noted that no failures have occurred to date and the problems with the wrist pin assemblies occurred in commercial applications after many thousands of hours of cyclic operation. FM-Alco 251 engines in nuclear applications are not typically subjected to this type of operation. However, it is recommended that the subject pins be replaced with pin assemblies made with the correct sleeve material.

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| <b>Coltec Industries</b><br><br><b>Fairbanks Morse</b><br><b>Engine Division</b> | <b>FAX TO:</b> | <b>PAGE</b>     |  |
|   |                | <b>DATE</b>     |  |
| <b>ATTN: NRC Operations Center</b>  |                | <b>OUR REF</b>  |  |
| <b>FROM: James Golding, Coltec Industries</b>   |                | <b>YOUR REF</b> |  |
| <b>SUBJECT: Part 21 File No. 98-001</b>   |                |                 |  |

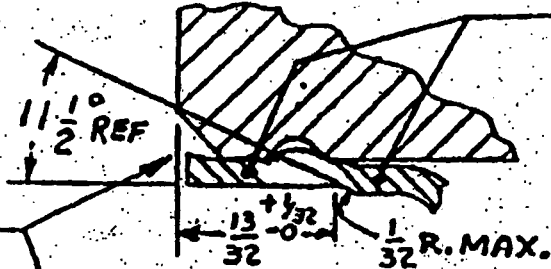
Attached is notification of part 21 File No. 98-001. Written notification will follow. If there are any questions please contact me at (608) 364-8315.

James Golding



NOMINAL REDUCTION IN WALL THICKNESS OF .0135 (20.8%)

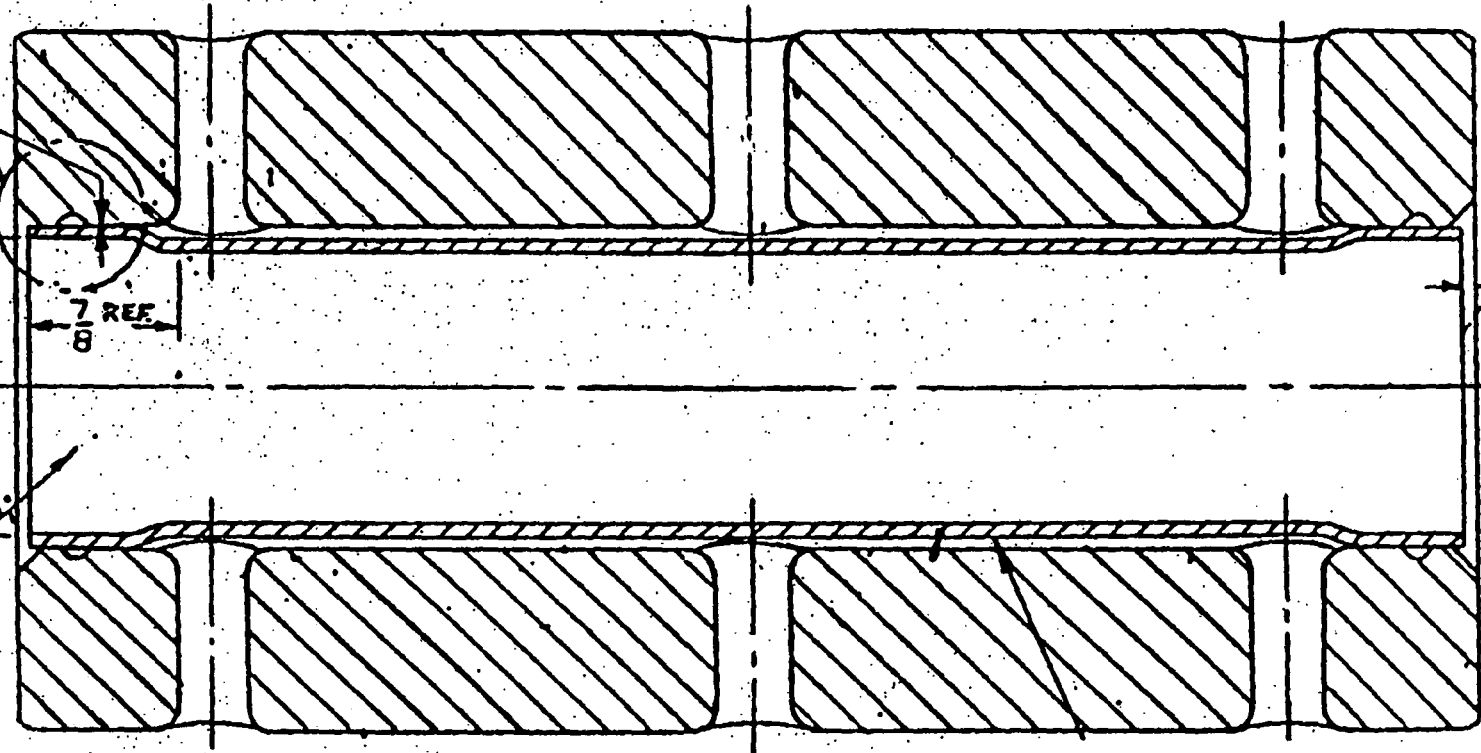
(1)



ROLLING  
DETAIL  
0 SCALE

00  
13 DIA. CLR.  
FORE ROLLING.

5  
5 DIA.  
FORE ROLLING.  
BOTH ENDS



1/32 MIN.  
(BOTH SIDES)

(2)

FIG. 1