

# CATEGORY 1

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9707150121      DOC. DATE: 97/07/10      NOTARIZED: NO      DOCKET #

FACIL: 50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G	05000244
50-255 Palisades Nuclear Plant, Consumers Power Co.	05000255
50-247 Indian Point Station, Unit 2, Consolidated Edison Co.	05000247
50-286 Indian Point Station, Unit 3, Power Authority of Stat	05000286
50-293 Pilgrim Nuclear Power Station, Unit 1, Boston Edison	05000293
50-272 Salem Nuclear Generating Station, Unit 1, Public Servi	05000272
50-311 Salem Nuclear Generating Station, Unit 2, Public Serv	05000311
50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga	05000275
50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga	05000323

AUTH. NAME	AUTHOR AFFILIATION
FRATIANNE, S.A.	Colt Industries, Inc.
RECIP. NAME	RECIPIENT AFFILIATION
	Document Control Branch (Document Control Desk)

SUBJECT: Deficiency rept re potential safety hazard associated  
w/FM-Alco 251 engin, high pressure fuel tube-catalog:  
4401031-2 in which dual failure mode exists. Caused by  
incorrect forming process.

DISTRIBUTION CODE: IE27D    COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 1  
TITLE: 50.55(e) Construction Deficiency Report

NOTES: License Exp date in accordance with 10CFR2,2.109(9/19/72).      05000244

RECIPIENT ID CODE/NAME	COPIES LTTR	ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	ENCL
PD1-1 PD	1	1	PD3-1 PD	1	1
PD1-3 PD	1	1	PD1-2 PD	1	1
PD4-2 PD	1	1	VISSING, G.	1	1
SCHAAF, R	1	1	HAROLD, J	1	1
WUNDER, G.	1	1	WANG, A.	1	1
OLSHAN, L	1	1	BLOOM, S	1	1
INTERNAL: ACRS	1	1	DEDRO	1	1
<u>FILE CENTER</u>	1	1	NRR/DRPM/PECB	1	1
OGC/HDS3	1	1	OGC/HDS2	1	1
OGC/HDS3	1	1	RES/DET/EIB	1	1
RGN1    FILE    01	1	1	RGN3    FILE    01	1	1
RGN4    FILE    01	1	1			
EXTERNAL: NOAC SILVER, E	1	1	NRC PDR	1	1

NOTE TO ALL "RIDS" RECIPIENTS:  
PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
ROOM OWFN 5D-5 (EXT. 415-2083) TO ELIMINATE YOUR NAME FROM  
DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR    25    ENCL 0

# Coltec Industries



Fairbanks Morse  
Engine Division  
701 White Avenue  
Beloit, WI 53511-5492  
608/364-4411  
FAX: 608/364-0382

10 July 1997

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

File No.: 97-001

Subject: FM-Alco 251 Engine, High Pressure Fuel Tube-Catalog No.: 4401031-2

On 11 June 1997, Coltec Fairbanks Morse Engine Division (FMED) became aware of a potential safety hazard associated with the subject assembly in which a dual failure mode exists. The first failure mode is a longitudinal fracture on the outer surface of the 90 degree bend. The fracture is caused by inherent fissures in the tube material. The second failure mode is also a fracture that develops in the 1/16 in. radii at both up-set ends of the tube. The fractures in the up-set ends resulted from an incorrect forming process using dies, instead of a production fitting. In either case, the high pressure fuel spray after fracture can create a serious fire hazard. An analysis of the tube material indicates that the material grade (AISI 4130) is suitable for the application for which it is used, and that the samples tested meet specifications. Corrective action has been taken to prevent recurrence of both failure modes through changes to the affected drawings and the manufacturing processes.

Affected utilities should return their current inventory of the subject assembly to FMED, and begin to replace existing installed assemblies as soon as possible. It should be noted that due to the stand-by operation mode of the FM-Alco 251 Engine in nuclear application, tube failure is not eminent since both fracture modes are attributed to long term exposure to cyclical loading from both fuel injection system and engine vibrations.

The following sites are affected by this notification:

- |                                 |                 |
|---------------------------------|-----------------|
| • Consolidated Edison           | Indian Point 3  |
| • Consumers Power               | Palisades       |
| • Boston Edison                 | Pilgrim Station |
| • Public Service Electric & Gas | Salem           |
| • New York Power Authority      | Indian Point 2  |
| • Pacific Gas & Electric        | Diablo Canyon   |
| • Rochester gas & Electric      | Ginna Station   |

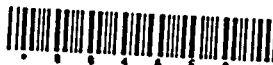
Sincerely,

Scott A. Frattianne  
Manager, Quality Assurance

cc: B. Hall  
T. Gill  
G. Gutoski

IE27 1/0

150002  
9707150121 970710  
PDR ADOCK 05000244  
S PDR



A division of Coltec Industries Inc