

Part 21 (PAR)

Event # 48850

<b>Rep Org:</b> FAIRBANKS MORSE	<b>Notification Date / Time:</b> 03/25/2013 19:10 (EDT)
<b>Supplier:</b> FAIRBANKS MORSE	<b>Event Date / Time:</b> 01/28/2013 (CDT)
	<b>Last Modification:</b> 03/25/2013
<b>Region:</b> 3	<b>Docket #:</b>
<b>City:</b> BELOIT	<b>Agreement State:</b> Yes
<b>County:</b>	<b>License #:</b>
<b>State:</b> WI	
<b>NRC Notified by:</b> DOMINIC DEDOLPH	<b>Notifications:</b> JULIO LARA R3DO
<b>HQ Ops Officer:</b> DONALD NORWOOD	PART 21 GROUP EMAIL
<b>Emergency Class:</b> NON EMERGENCY	
<b>10 CFR Section:</b>	
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE	

PART 21 REPORT - FOREIGN MATERIAL INSIDE EDG AIR START PIPING

Facility Affected:

Xcel Energy - Prairie Island Nuclear Generating Plant (PINGP).

Component Affected:

OP Engine- Air Start Piping Assemble (p/n 11879060\*00) shipped after October 23, 2012.

Supplier:

Fairbanks Morse Engine, 701 White Ave., Beloit, WI 53511.

Nature of Defect:

During a routine emergency diesel generator (EDG) test on 1/28/2013, one of the two redundant air start systems was isolated from the other and the single air start system failed to start the EDG due to the foreign material in the solenoid valve. The foreign material removed from the solenoid valve during failure analysis appears to be liquid pipe sealant used to seal threaded pipe joints during assembly.

Safety Hazard Which Could Be Created By Such Defect:

Foreign material within both of the redundant air start piping systems could become lodged in both of the solenoid valves. Simultaneous failure of the two solenoid valves would prevent the emergency diesel generator from starting.

Corrective Action:

PINGP has completed disassembly and cleaning of both piping systems to ensure no foreign material remains within the piping system.

IE19  
NRR

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FM will create a workmanship standard for pipe sealing, hydrostatic testing, and pressure testing that will include a foreign material exclusion program to ensure cleanliness of assemblies. This will be completed by June 30, 2013. FM has issued Corrective Action No. 2609 in its Quality Assurance Program.

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HOO Hoc

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**From:** Dedolph, Dominic [Dominic.Dedolph@FairbanksMorse.com]  
**Sent:** Monday, March 25, 2013 7:10 PM  
**To:** HOO Hoc  
**Subject:** Part 21 report for foreign material in EDG air start system  
**Attachments:** 13-01\_10CFR21\_Part21\_NRC report.pdf

Greetings,

The attached Part 21 report has also been faxed, but is being e-mailed for your convenience.

Sincerely,  
**Dominic Dedolph**  
ASQ - CQA, CQE, CQM, CQT  
Manager, Quality Assurance



an EnPro Industries company

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Beloit, WI 53511

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*I pledge to personally be involved to create an injury-free workplace. My dedication to creating a safe workplace free of all injuries will be absolute and clear through my actions.*

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Fairbanks Morse Engine  
Notification Report Serial Number 13-01  
10CFR 21.21 (d)(3)(ii) Notification  
Submitted on March 25, 2013

**(i) Name and address of the individual or individuals informing the Commission.**

Mr. Dominic Dedolph  
Quality Assurance Manager  
Fairbanks Morse Engine  
701 White Avenue  
Beloit, WI 53511

Phone: 608-364-8132

**(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.**

**Facility:**

Xcel Energy - Prairie Island Nuclear Generating Plant (PINGP)

**Basic component which fails to comply or contains a defect:**

Part Number	Description	Shipped After
11879060*00	OP Engine - Air Start Piping Assembly	October 23, 2012

**(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.**

Fairbanks Morse Engine  
701 White Avenue  
Beloit, WI 53511

**(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.**

**Nature of defect:**

Foreign material inside the emergency diesel generator (EDG) engine air start piping system prevented the solenoid valve from operating correctly. During a routine EDG test on 1/28/2013, one of the two redundant air start systems was isolated from the other and the single air start system failed to start the EDG due to the foreign



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material in the solenoid valve. The foreign material removed from the solenoid valve during failure analysis appears to be liquid pipe sealant used to seal threaded pipe joints during assembly.

Successful functional testing at Fairbanks Morse (FM) prior to shipment of the assembly and post-installation functional testing of the assembly on the EGD at PINGP did not detect the defect. It is likely that the foreign material migrated into the solenoid valve after installation.

**Safety hazard which could be created by such defect:**

Foreign material within both of the redundant air start piping systems could become lodged in both of the solenoid valves. Simultaneous failure of the two solenoid valves would prevent the emergency diesel generator from starting.

**(v) The date on which the information of such defect or failure to comply was obtained.**

PINGP notified Fairbanks Morse Engine of failure on 2/25/2013.

**(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations in this part.**

Location	Qty	Part Number	Description	Order #	Ship Date
Prairie Island	2	11879060*00	OP Air Start Piping Assembly	00036957	11/26/12

**(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.**



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PINGP has completed disassembly and cleaning of both piping systems to ensure no foreign material remains within the piping system.

FME will create a workmanship standard for pipe sealing, hydrostatic testing, and pressure testing that will include a foreign material exclusion program to ensure cleanliness of assemblies. This will be completed by June 30<sup>st</sup>, 2013. FM has issued Corrective Action #2609 in its Quality Assurance Program.

**(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.**

None – PINGP has completed disassembly and cleaning of both air start systems to ensure correct operation.