

Colt Industries



NOTED SEP 25 1978 Buflington

Fairbanks Morse
Engine Division
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Beloit, Wisconsin 53511
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Copies

September 22, 1978

Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Ill. 60137

Attention: Mr. James G. Keppler, Director, Region III

Subject: Colt Industries-Fairbanks Morse Engine Division
Emergency Diesel Generators
Possible Existence Of A Defect
Written Report

Reference: Phone conversation reporting information contained below to U. S.
Nuclear Regulatory Commission, Mr. Bob Heishman by Mr. J. M. Moriarty
of Colt Industries-Fairbanks Morse Engine Division on September 21, 1978

Gentlemen:

During preparation for a 300 start and load acceptance reliability test of a 14-cylinder PC-2 powered Diesel Generator Set on order for Northeast Utilities, Millstone III Nuclear Plant, failures of several fuel injection pumps were experienced. Failure mode was plunger to barrel seizure. This generator set had completed its basic contract acceptance tests in 1976 and has been in storage at our facility. The 300 start test was an optional test for which the option was recently exercised.

It was initially considered that these failures were of the "infant mortality" type occasionally experienced early in the operational life of a unit due to either minute foreign matter passing through the pumps or localized minor manufacturing imperfections causing seizure. After change out and subsequent failure of additional pumps, it was determined that a variable load run-in is required to insure satisfactory operation under 300 start test conditions. A program is underway to conduct a 48 hour variable load wear-in, followed by approximately 100 fast start and load acceptance cycles to put the unit in a proven condition prior to commencing the 300 start test. Final judgement as to the adequacy of this program will be made after completion of the test.

The second Millstone diesel, also presently in storage, will have all pumps removed, inspected and cleaned up as necessary and worn in prior to going into service. The exact nature of the wear-in is still under consideration.

*Bring up A
quality of
test machine!*

There are two additional units for Duquesne Light Co. in storage at Beloit. We will arrange for disposition of them prior to shipment.

The only operating PC-2 units are at Alabama Power Co., Farley Nuclear Plant. We are reviewing our records to determine if those pumps were manufactured by us or were purchased. The answer will influence our course of action on these units.

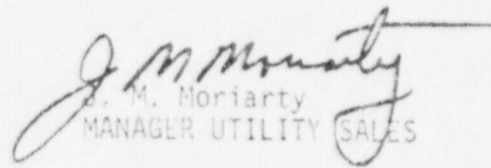
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We have also contacted Farley, indicated we were making this report and asking them to determine if they have experienced any injection pump difficulties.

Two additional PC-2 units are at the South Carolina Electric & Gas Co. Summer Station. These units have not been started up. We will notify them of this matter via copy of this report and inform them of our intended course of action when our evaluation is complete.

We will continue our investigation and testing of the Millstone unit and keep you advised.

Very truly yours,


J. M. Moriarty
MANAGER UTILITY SALES

JMM:jc

cc: Mr. Oliver Kingsley
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Attention: Project Engineer For Duquesne J.O. 12241