

**ENGINE SYSTEMS, INC.**175 Freight Road
Rocky Mount, NC 27804Telephone: 252/977-2720
Fax: 252/446-1134**TELEFAX**

Date: April 12, 2024
Company: NRC Operations Center
Fax Number: 301/816-5151
Verification No.: 301/816-5100
Reference: Report No. 10CFR21-0138, Rev. 0
From: Dan Roberts
Page: 1 of 4

Dear Sir / Madam:

Following this cover is a copy of our report 10CFR21-0138, Rev. 0, for a 10CFR21 reportable notification for an EMD cylinder liner water leak, P/N 9318833 (component of power assembly P/N 40124898), S/N 20D6294.

A copy of this report will be mailed to the NRC Document Control Desk and to our affected nuclear customer.

Should you have questions, please let us know.

Sincerely,

ENGINE SYSTEMS, INC.

A handwritten signature in black ink, appearing to read 'Dan Roberts', is written over the printed name.

Dan Roberts
Quality Manager



ENGINE SYSTEMS, INC.

175 Freight Road, Rocky Mount, NC 27804

Telephone: 252/977-2720

Fax: 252/446-1134

Report No. 10CFR21-0138

Rev. 0: 04/12/24

**10CFR21 REPORTING OF DEFECTS
AND NON-COMPLIANCE**

COMPONENT: EMD Cylinder Liner Water Leak
P/N 9318833 (component of power assembly P/N 40124898)
S/N 20D6294

SYSTEM: Emergency Diesel Generator

CONCLUSION: Reportable in Accordance With 10CFR21

Prepared By: *Ja Lin*
Engineering Manager

Date: 4/12/24

Reviewed By: *Don Poth*
Quality Manager

Date: 4-12-24

Report No. 10CFR21-0138

Record of Revisions
Page: 1 of 1

REV	DATE	PAGE	DESCRIPTION
0	04/12/24	-	Original Issue.

Report No. 10CFR21-0138
Revision: 0
Date: 04/12/24
Page: 1 of 1

Pursuant to 10 CFR 21.21(d)(4), ESI is presenting the required information as follows:

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

<i>Dan Roberts</i>	<i>John Kriesel</i>
<i>Quality Manager</i>	<i>Engineering Manager</i>
<i>Engine Systems Inc.</i>	<i>Engine Systems Inc.</i>
<i>175 Freight Rd.</i>	<i>175 Freight Rd.</i>
<i>Rocky Mount, NC 27804</i>	<i>Rocky Mount, NC 27804</i>

- (ii) Identification of the basic component supplied within the United States which fails to comply or contains a defect.

EMD Cylinder Liner, P/N 9318833, S/N 20D6294
Component of Blade Power Pack Assembly, P/N 40124898, S/N 20L0603

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

Engine Systems Inc. (ESI)

- (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.

An EMD cylinder liner developed a jacket water leak following installation on an emergency diesel generator set. The leak occurred at a brazed joint and was detected after post-installation engine testing. Had the leak gone undetected, jacket water may have accumulated in the combustion chamber or airbox and potentially contaminated the engine's lubricating oil. Jacket water intrusion into any of these areas is undesirable and could lead to failure of the diesel engine and therefore failure of the emergency diesel generator set.

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

February 22, 2024

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

The extent of condition is this single cylinder liner, P/N 9318833, S/N 20D6294 used in the power assembly shown below.

<i>Customer</i>	<i>Customer PO</i>	<i>ESI Sales Order</i>	<i>Part Number Ordered</i>	<i>Serial Number</i>	<i>ESI C-of-C Date</i>
<i>Constellation – Fitzpatrick</i>	<i>703, release 13498</i>	<i>3021545</i>	<i>40124898 (Blade Power Pack)</i>	<i>20L0603</i>	<i>April 1, 2021</i>

- (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.

For Fitzpatrick:

No action required; the power assembly has been returned to ESI for replacement.

For ESI:

ESI will revise the dedication package to include additional verifications to prevent reoccurrence. The revision will be implemented within 30 days.

- (viii) Any advice related to the potential 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.

N/A