ENGINE SYSTEMS, INC.
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Telephone: 252/977-2720
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June 26, 2007

U.S. Nuclear Regulator Commission
Document Control Desk
Mail Stop 0P1-17
Washington, DC 20555

Subject: 10CFR21 Reporting of Defects and Non-Compliance -
Engine Systems, Inc. Report No. 10CFR21-0093, Rev. 0

Camfil-Farr Air Intake Filter Housing, P/N: ESI50801-1

Dear Sir:

The enclosed report addresses a reportable notification applicable to a diesel engine air intake filter housing, P/N ESI50801-1, supplied by Engine Systems, Inc. in 2001.

A copy of the report has been mailed to our affected nuclear customers.

Please sign below, acknowledging receipt of this report, and return a copy to the attention of Document Control at the address above (or, fax to number 252/446-1134) within 10 working days after receipt.

Yours very truly,

ENGINE SYSTEMS, INC.

Susan Woolard

Susan Woolard
Document Control

Please let us know if ANY of your mailing information changes - name of recipient, name of company/facility, address, etc. Mark the changes on this acknowledgment form and send to us by mail or FAX to the number above.

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ENGINE SYSTEMS, INC.
175 Freight Road, Rocky Mount, NC 27804
Telephone: 252/977-2720
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Report No. 10CFR21-0093
Rev. 0: 06/25/07

10CFR21 REPORTING OF DEFECTS AND NON-COMPLIANCE

COMPONENT: Camfil-Farr air intake filter housing
P/N: ESI50801-1

SYSTEM: Emergency Diesel Generator – intake air

CONCLUSION: Reportable in accordance with 10CFR21.

Prepared By: _____ Date: 6/25/07
Engineering Manager

Reviewed By: _____ Date: 6/25/07
Quality Assurance Manager

REV	DATE	PAGE	DESCRIPTION
0	06/25/07		Initial issue.

COMPONENT:

Camfil-Farr intake air filter housing, part number ESI50801-1

DISCUSSION:

Engine Systems Inc. (ESI) began a 10CFR21 evaluation on 4/27/07 to investigate cracking of an air intake filter housing at the Kewaunee Power Station (KPS) as shown in Figure 1 below. The evaluation was concluded on 6/25/07 and was determined to be a reportable defect as defined by 10CFR21.

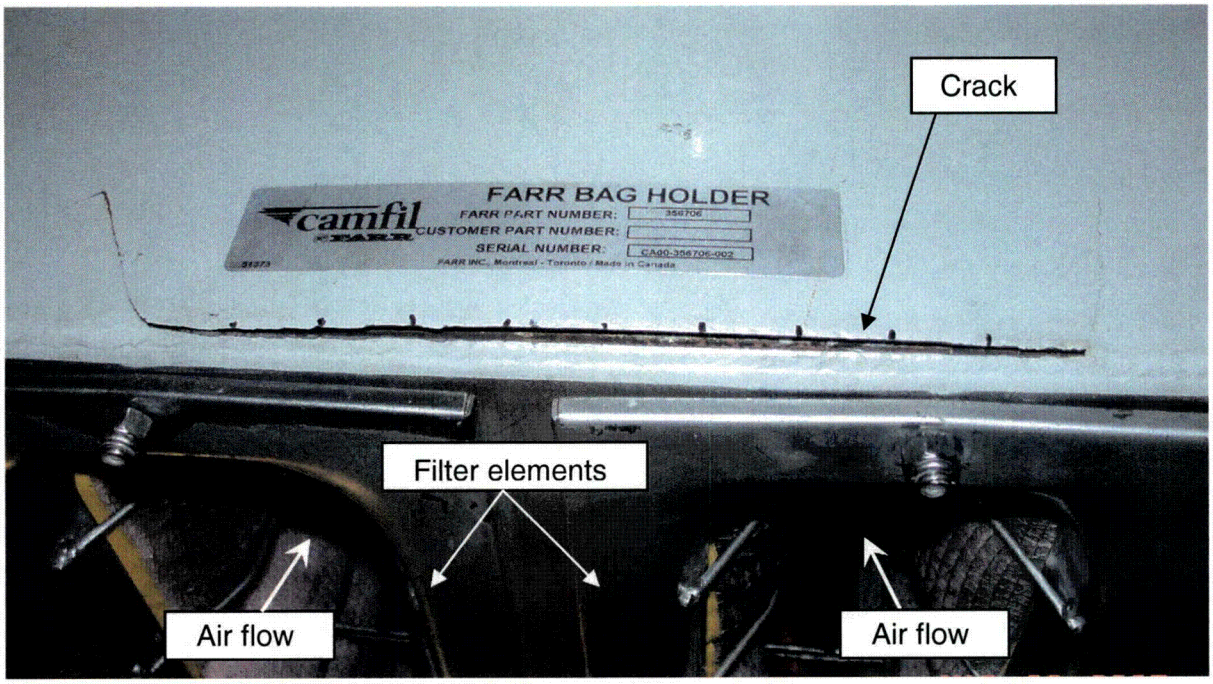

Figure 1

1A Emergency Diesel Generator Air Box

Cracking created a small gap to occur between the front and top surfaces of the housing. The gap was approximately ¼" at the highest point (near the center) and decreased on either side of the center point (overall crack length was approximately 10" long). The filter housing utilizes four (4) bag-type filter elements aligned horizontally. The vertical centerline of the housing is between the two (2) elements shown in Figure 1; another element is located beside each of the pictured elements. The crack resulted in a pathway for unfiltered air to enter the engine turbocharger. Unfiltered air may contain foreign material that could cause turbocharger failure and/or premature engine wear.

Possible causes of the cracking have been determined to be:

1. Lack of weld penetration during fabrication of the housing.
2. High residual stresses related to bowing on the top surface and/or improper fit up during fabrication.
3. Overload event during shipment, storage, installation, or some other time to promote crack initiation.

The filter housing was repaired on site by KPS personnel and therefore a detailed examination of the cracked housing could not be performed by ESI. KPS observations and inspections provide the following information:

1. Bowing of the filter housing was evident and documented by measurements on the top surface of the A EDG housing but was not present on the B EDG housing.
2. No cracking was present on the B EDG housing.
3. The filter housing was received without any physical damage.
4. The extent of bowing on the top plate at the time of installation is unknown.
5. The filter housing was installed in fall 2001 and has accumulated approximately 200 hours of run time. Damage to the housing was not observed during each of the three (3) subsequent refuel outages after installation; indicating that significant cracking did not occur until after the fall 2006 outage.
6. Natural frequency data for both EDG's suggests that factors other than fatigue contributed to the cracking, such as external force or high residual stress.

ESI inspected three (3) of the same part number filter housings that were in-house when the cracking condition was reported. The ESI inspections provide the following:

1. No bowing/distortion was observed along the top surface and all other seam welds.
2. Proper weld penetration of the seam welds at the air inlet end of the housings was confirmed by performing magnetic particle inspection.
3. Visual weld examination of all welds indicated conformance to accepted industry standards.

CONCLUSION:

Actual cause of the cracking cannot be determined, but can be attributed to the following:

1. Lack of weld penetration during fabrication of the housing.
2. High residual stresses related to bowing on the top surface and/or improper fit up during fabrication.
3. Overload event during shipment, storage, installation, or some other time to promote crack initiation.

The reported cracking is believed to be an isolated case; however, other users of filter housing part number ESI50801-1 will be notified of this condition.

AFFECTED USERS:

The following shipments of part number ESI50801-1 filter housings are affected by this notification.

Part No.	Customer	Customer PO	ESI SO	Ship Date	Qty
ESI50801-1	Wisconsin Electric Point Beach	4500346994	80492	Apr. 2001	2
ESI50801-1	Wisconsin Public Service Kewaunee	273129	87626	Sep. 2001	2

CORRECTIVE ACTION:

At the earliest convenience, affected users should inspect the air filter housings for any evidence of cracking and/or distortion that could indicate conditions of high residual stresses.