"Designated Original"
per F. Saba

TVA

Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

September 5, 2014

10 CFR 21.21

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **10 CFR Part 21 Interim Report - Engine Systems, Inc. - Emergency Diesel Generator Heat Exchanger CEY564L-HEX**

The Tennessee Valley Authority (TVA) recently identified a leak in the weld of the Emergency Equipment Cooling Water outlet piping on the head of the C2 Emergency Diesel Generator (EDG) heat exchanger, CEY564L-HEX. Corrective Action Program documents were written to document the failure of the heat exchanger weld and to perform an engineering evaluation of the condition. TVA's evaluation concluded that this condition has the potential to constitute a reportable condition pursuant to Title 10 of the Code of Federal Regulations (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and as such, requires additional evaluation.

The TVA must perform additional analysis in order to determine the significance of the weld defect. TVA will submit a final 10 CFR Part 21 report by November 6, 2014. The enclosure to this letter provides information required by 10 CFR Part 21.21(a)(2) for the interim report of this condition.

There are no new regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact J. L. Paul, Nuclear Site Licensing Manager, at (256) 729-2636.

Respectfully,

S. BONO
FOR K. POLSON

K. J. Polson
Vice President

IE19
NRR

Enclosure: 10 CFR Part 21 Interim Report - Engine Systems, Inc. - Emergency Diesel Generator Heat Exchanger CEY564L-HEX

cc (w/ Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant

Enclosure

Browns Ferry Nuclear Plant,
Units 1, 2, and 3

10 CFR Part 21 Interim Report
Engine Systems, Inc. - Emergency Diesel Generator Heat Exchanger CEY564L-HEX

See Enclosed

10 CFR Part 21 Interim Report - Engine Systems, Inc. - Emergency Diesel Generator Heat Exchanger CEY564L-HEX

Name and Address of the Individual Making the Interim Report

Mr. K. J. Polson
Vice President
Browns Ferry Nuclear Plant
Tennessee Valley Authority
Post Office Box 2000
Decatur, Alabama 35609-2000

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

On July 10, 2013, the Tennessee Valley Authority (TVA) identified a leak in the weld of the Emergency Equipment Cooling Water (EECW) outlet piping on the head of the C2 Emergency Diesel Generator (EDG) heat exchanger, CEY564L-HEX.

Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect (under evaluation)

Engine Systems, Inc.
175 Freight Rd
Rocky Mount, NC 27804

Description of the Deviation or Failure to Comply that is being Evaluated

A leak was identified in the weld of the EECW outlet piping on the head of the C2 EDG heat exchanger. The TVA determined the cause of the leak to be a vendor manufactured failed weld in the weld joint between the EECW line connection and the inlet / outlet heat exchanger head.

Evaluation Status

The TVA determined the cause of the leak to be a vendor manufactured failed weld in the weld joint between the EECW line connection and the inlet / outlet heat exchanger head. The C2 EDG heat exchanger will undergo additional analysis in order to determine the safety significance of the weld defect. Once the analysis is complete, TVA will complete the 10 CFR Part 21 evaluation.

Date on which Evaluation will be Completed

The TVA will submit a final 10 CFR Part 21 report by November 6, 2014.

INSTRUCTIONS FOR FORM 41L
LICENSING TRANSMITTAL TO NRC SUMMARY AND CONCURRENCE SHEET

DATE DUE: September 5, 2014	**(A)** PREPARER: Mark B. Acker (7533)

SUBJECT: Interim Part 21 Report - C2 Emergency Diesel Generator Heat Exchanger Weld Defect - PER 913911

REGULATORY CONSIDERATIONS

(B) Oath or Affirmation	☐ YES ☒ NO	**(E)** Posting Requirements	☐ YES ☒ NO
(C) Licensing Verification	☒ YES ☐ NO	**(F)** FSAR EFFECT	☐ YES ☒ NO
(D) New Commitments	☐ YES ☒ NO	**(G)** OGC Consultation	☐ YES ☒ NO
(H) LIC-109 Review	☐ YES ☒ N/A	**(I)** Engineering Independent Technical Review (ITR)	☐ YES * ☒ NO

*Engineering (only): / Design Change # N/A

INDEPENDENT TECHNICAL REVIEWER

(J) Licensing (only): Steve Austin 09/03/14

PEER CHECKER

CONCURRENCE (K)

A concurrence signature reflects that the signatory has assured that, with respect to the signatory's area of cognizance, the submittal is appropriate and consistent with TVA Policy, the submittal is complete and accurate, applicable commitments are approved for implementation and supporting documentation for submittal completeness and accuracy has been prepared.

NAME	ORGANIZATION	SIGNATURE	DATE
	ICAREB	Jamie Paul	9/3/14
J. Paul	Site Licensing Manager	Jamie Paul	9/5/14
S. Hunnewell	Engineering Manager	See attached	9-4-14
P. Summers	Director Plant Support	[illegible]	9/8/14
B. Wetzel	Corp Licensing	See attached	9-5-14

(L) Licensing (only): Steve Austin 09/05/14

QUALITY REVIEWER

INSTRUCTIONS FOR FORM 41C
LICENSING TRANSMITTAL TO NRC SUMMARY AND CONCURRENCE SHEET

DATE DUE September 5, 2014	(A) PREPARER Mark B. Acker (7533)

SUBJECT Interim Part 21 Report - C2 Emergency Diesel Generator Heat Exchanger Weld Defect - PER 913911

REGULATORY CONSIDERATIONS

(B) Oath or Affirmation	☐ YES ☒ NO	(E) Posting Requirements	☐ YES ☒ NO
(C) Licensing Verification	☒ YES ☐ NO	(F) FSAR EFFECT	☐ YES ☒ NO
(D) New Commitments	☐ YES ☒ NO	(G) OGC Consultation	☐ YES ☒ NO
(H) LIC-109 Review	☐ YES ☒ N/A	(I) Engineering Independent Technical Review (ITR)	☐ YES * ☒ NO

*Engineering (only) / Design Change # N/A

INDEPENDENT TECHNICAL REVIEWER

(J) Licensing (only) Steve Austin / 09/03/14

PEER CHECKER

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NAME	ORGANIZATION	SIGNATURE	DATE
	ICAREB	Jamie Paul	9/3/14
J. Paul	Site Licensing Manager		
S. Hunnewell	Engineering Manager		
P. Summers	Director Plant Support		
B. Wetzel	Corp Licensing	Ben A. Wetzel	9/5/14

(L) Licensing (only) /

QUALITY REVIEWER

INSTRUCTIONS FOR FORM 41L
LICENSING TRANSMITTAL TO NRC SUMMARY AND CONCURRENCE SHEET

DATE DUE: September 5, 2014	**(A)** PREPARER: Mark B. Acker (7533)

SUBJECT: Interim Part 21 Report - C2 Emergency Diesel Generator Heat Exchanger Weld Defect - PER 913911

REGULATORY CONSIDERATIONS

(B) Oath or Affirmation	☐ YES ☒ NO	**(E)** Posting Requirements	☐ YES ☒ NO
(C) Licensing Verification	☒ YES ☐ NO	**(F)** FSAR EFFECT	☐ YES ☒ NO
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*Engineering (only): / Design Change # N/A

INDEPENDENT TECHNICAL REVIEWER

(J) Licensing (only): Steve Austin 09/03/14

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NAME	ORGANIZATION	SIGNATURE	DATE
	ICAREB	Jamie Paul	9/3/14
J. Paul	Site Licensing Manager		
S. Hunnewell	Engineering Manager	[illegible]	9-4-14
P. Summers	Director Plant Support		
B. Wetzel	Corp Licensing		

(L) Licensing (only): /

QUALITY REVIEWER

Integrated Completeness and Accuracy Review Evaluation Board
Minutes

Date: 09 / 03 / 2014
mm/dd/yyyy

Subject: Interim Part 21 Report for C2 EDG HX Weld Defect

Correspondence Type:

NOV Response ☐ GL Response ☐ Bulletin Response ☐ CAL Response ☐
Allegation Response ☐ RAI Response ☐ NOED ☐ Relief Request ☐ Security Event Report ☐
LAR ☐ LER ☐ Licensed Operator ☐ Required Report ☐
Other ☒ Describe: Part 21 Interim Report

Board Members

Member	Name (print)	Title
Chairperson	Jamie Paul	Licensing Manager
Member #2	Mark Acker	Licensing Engineer
Member #3	Bill Rice	Programs Engineer
Member #4 (If necessary)		

Minutes

Discussion of Validation/Verification Performed

- noted that a vendor has not been selected
- due date extended to be more reasonable
- May not perform testing, may perform an evaluation instead.
-

Conclusion Additional Validation/Verification Required: No ☒ Yes ☐

Describe Additional Validation (if required):

Changes above will be incorporated

Minutes Approved: Jamie Paul / 9/3/14
ICAREB Chairperson/Date