March 12, 2010
ADR 2010-05

Mrs. Khesha Reed
Manager
Heavy Duty and Nonroad Engine Group
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality
Environmental Protection Agency
Mailcode 6405J
1200 Pennsylvania Ave, NW
Washington DC 20460

SUBJECT: Emissions Defect Information Report ADR 2010-05

Dear Mrs. Reed,

In accordance with the procedures outlined in 40 CFR 85, Subpart T (as referenced in 40 CFR 89, Subpart I) we are submitting the following emissions defect information report ADR 2010-05. If there are any questions regarding this submission, please contact me at (812) 377-8942 or Rich Wagner at (812) 377-7569.

Sincerely,

Victor Schneider
Engine Certification
Cummins Inc.
Mail Code 60702
Box 3005
Columbus, IN 47201

[HYPERLINK "mailto:victor.a.schneider@cummins.com"]
Phone: 812-377-8942
FAX: 812-377-8739

NOTE: The filing of a Defect Information Report is not conclusive as to the applicability of the Production Warranty provided by section 207(a) of the Clean Air Act.

Emissions Defect Report ADR 2010-05

1. CORPORATE NAME: Cummins Inc.

2. DEFECT DESCRIPTION:
Initial model year 2010 automotive engines utilizing SCR technology have a software algorithm in the electronic control module (ECM) to detect incorrect diesel exhaust fluid (DEF). The algorithm does not operate as described in the AECD document Appendix V due to a software revision to accommodate a service tool test process.

3. DESCRIPTION OF AFFECTED ENGINES:
The following is the list of the heavy-duty on-highway diesel engine families affected and the approximate volume in each:

Family ACEXH0408BAH	448 engines
Family ACEXH0505CAC	440 engines
Family ACEXH0540LAQ	169 engines
Family ACEXH0912XAP	307 engines
Family ACEXH0912XAQ	565 engines

4. (i) NUMBER OF Engines AFFECTED: Approximately 1929

(ii) PLANT ADDRESS:
Cummins Midrange Engine Plant
Rockymount, NC

Jamestown Engine Plant
Jamestown, NY

5. EVALUATION OF EMISSIONS IMPACT AND DRIVEABILITY PROBLEMS:
There is no emission impact or drivability problem.

6. EMISSIONS DATA RELATING TO DEFECT:
Not applicable

7. MITIGATION UNDER AUDIT POLICY: Cummins has satisfied all of the criteria of mitigation contained in the EPA Audit Policy, as follows:

a. **Systematic Discovery** – Not applicable

b. **Voluntary Discovery** – Cummins discovered this failure while working with its customers.

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c. **Prompt Disclosure** – Disclosure is made after pertinent information was confirmed in accordance with Defect Reporting Requirements of 15 days, well below the 21 days required in the EPA Audit Policy.

d. **Correction and Remediation** – The software service tool revision has been calibrated such that the incorrect DEF algorithm operates as described in the AECD document. The population of engines with the defect will be campaigned and recalibrated.

e. **Prevent Recurrence** – Cummins is implementing a more robust validation testing of its algorithms to assure fault detection algorithms are operational after software revisions.

f. **No Repeat Violation** – All SCR engines with the defect will be voluntarily campaigned.

g. **No Harm** – The end-user would have to tamper the DEF system by using an incorrect reducing agent before there would be an effect on emissions. Fault detection for SCR catalysts efficiency would still trigger and illuminate a check engine lamp due to incorrect DEF.

h. **Cooperation** – Cummins Inc. continues to cooperate with EPA on these and other matters.

8. ANTICIPATED MANUFACTURER FOLLOW-UP:
VERR will be submitted summarizing the campaign and its progress.

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