CATERPILLAR®

Caterpillar Inc.
100 NE Adams Street
Peoria, Illinois 61629-9240

EMAIL AND
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 3, 2011

Mr. Ric Willard
Medium & Heavy Duty Vehicle Division
Office of Defects Investigation
National Highway Traffic Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

NVS-214rw
PE11-008

RE: Caterpillar Response to PE11-008 Information Request

Dear Mr. Willard:

Caterpillar Inc. ("Caterpillar") has prepared the following response to the National Highway Traffic Safety Administration's ("NHTSA") Information Request ("IR") for PE11-008, dated July 13, 2011.

Per the Opening Resume for PE11-008 and the IR, Caterpillar understands that NHTSA's evaluation is focused on leaks in the coolant hoses associated with the Clean Gas Induction (CGI) system on Caterpillar C7 engines. The CGI system cools and recycles exhaust gas from downstream of the after-treatment to the engine air inlet.

These responses are based on the information and documents Caterpillar has been able to locate as of August 2, 2011 through reasonably diligent efforts. Caterpillar reserves the right to supplement and make any changes to these responses if it appears at any time that omissions or errors have been made or that more accurate information is available. In addition, per agreement from my discussion with you, Caterpillar has provided responsive information in a Microsoft Excel spreadsheet, rather than in MS Access.

These responses were prepared with the assistance and advice of counsel and such discussion are covered by the attorney client and attorney work product privileges. Caterpillar objects to the specific requests contained in the IR to the extent that they seek information protected by the attorney-client privilege, the attorney work product doctrine, or any other applicable privilege or restriction. Although Caterpillar is not aware of any specific information being withheld pursuant to this objection, Caterpillar nevertheless preserves its objection and the right to assert privilege, as applicable, to any future information discovered.

Caterpillar notes that, while the IR defines "subject equipment" as "all model year 2006-2011 Caterpillar C7 Engines as installed equipped with the CGI system and manufactured for sale or lease in the United States," Caterpillar only manufactured for sale or lease in the United States model year 2007 and 2008 C7 engines equipped with the CGI system; there are no such C7 engines for model years 2006, 2009, 2010 or 2011.

REQUEST NO. 1: State, by model and model year how many subject engines CAT manufactured for sale or lease in the United States. For each engine provide the following:

a. Serial number;
b. Make;
c. Model;
d. Model year;
e. Date of manufacture;
f. Date warranty coverage commenced; and
g. The part number of subject component installed on engine as original equipment.

Provide the table in MS Access or a compatible format, entitled "PRODUCTION DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.

RESPONSE: Caterpillar manufactured 8,716 subject engines for sale or lease in the U.S. Caterpillar has provided additional responsive information in the enclosed spreadsheet, in the worksheet entitled "Engine Info," as follows:

a. **Column "A" of the worksheet contains the serial number for each subject engine.**
b. **The make of each subject engine is Caterpillar.**
c. **The model of each subject engine is C7, as reflected in column "B" of the worksheet.**
d. **Column "C" of the worksheet contains the model year of each subject engine.**
e. **Column "D" of the worksheet contains the date of manufacture of each subject engine.**
f. **The date warranty coverage commenced for each subject engine, if applicable, is identified in column "E" of the worksheet.**
g. **Column "F" of the worksheet identifies the part number of the subject component installed as original equipment on each subject engine.**

In addition, although not requested in the IR, Caterpillar has identified the Original Equipment Manufacturers ("OEMs") to whom the subject engines were shipped in column "G." Caterpillar included this information in response to an oral request from NHTSA on August 2, 2011.

SOURCE: **Caterpillar customer and warranty data bases**
Last date information gathered: August 2, 2011

REQUEST NO. 2: State the number and provide copies of each of the following, received by CAT, which relate to, or may relate to, the alleged defect in the subject engines:

a. Consumer / fleet complaints;
b. Field reports;
c. Reports involving a crash, injury, or fatality;
d. Reports involving a fire;
e. Property damage claims;
f. Third-party arbitration proceedings where CAT is or was a party to the arbitration; and
g. Lawsuits, both pending and closed, in which CAT is or was a defendant or codefendant.

For subparts "a" through "g," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same unit are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint). For "f" and "g," provide a summary of the event.

RESPONSE: Caterpillar has provided Information Responsive to this Request in the enclosed spreadsheet, in the worksheet entitled "Claims Stories," as follows:

a. Caterpillar has not located any records of consumer/fleet complaint which are or may be related to the alleged defect.
b. Caterpillar has identified 549 field reports, or warranty claims, related to the alleged defect; however, in some cases, there are multiple claims for the same service visit. Thus, there were actually 418 service visits related to the 549 claims In addition to the claims identified in the worksheet referenced above, Caterpillar has provided a pivotal table entitled "PT # of Claims per engine," which identifies how many service visits are related to each subject engine.
c. Caterpillar has not located any records of reports involving a crash, injury or fatality related to the alleged defect in the subject equipment.
d. Caterpillar has not located any records of reports involving fires related to the alleged defect in the subject equipment.
e. Caterpillar has not received any property damage claims related to the alleged defect in the subject equipment.
f. Caterpillar is not and has not been a party to any third-party arbitration proceedings related to the alleged defect in the subject equipment.
g. Caterpillar was a co-defendant in one lawsuit, now closed, involving eight school buses equipped with the subject equipment. The claims in that lawsuit were not specific to the alleged defect or the subject component at issue in PE11-008. Leaks in the CGI were identified in the repair history for some of the bus engines at issue, but those repairs may or may not have been related to the CGI coolant hose itself. A copy of the complaint is enclosed "M&A S&C."

SOURCE: **Caterpillar customer and warranty data bases and Caterpillar Legal Services Division**
Last date information gathered: August 2, 2011

REQUEST NO. 3: Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

a. Serial number;
b. Engine's owner or fleet name (and fleet contact person), address, and telephone number;
c. Engine's make, model and model year;
d. Engine's mileage at time of incident, if known;
e. Part number;
f. Incident date;
g. Date of manufacture; and
h. Date warranty coverage commenced.
i. VIN

Provide this information in MS Access or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.

RESPONSE: Caterpillar has provided responsive information for the 549 field reports identified in its response to Request No. 2, in the enclosed spreadsheet as follows:

a. **Column "B" in the "Claims Stories" worksheet and column "A" in the "Engine Info" worksheet contain the serial number for each field report identified in response to Request No. 2.**
b. **Columns "Q," "R," "S," "T" and "U" in the "Claims Stories" worksheet contain, where known, the customer name, street address, city, state and zip code, respectively, for each engine that is the subject of a field report identified in response to Request No. 2. Caterpillar continues its search and collection of telephone numbers for the identified customers, and will supplement its response to this Request once its search and collection is complete.**
c. **All of the subject engines involved in the field reports are Caterpillar C7 engines; the model year of each subject engine is identified in column "C" of the "Engine Info" worksheet.**
d. **The mileage for each field report is identified in column "H" in the "Claims Stories" worksheet.**
e. **Column "A" of the "Claims Stories" worksheet contains the part number for each field report.**
f. **Column "G" of the "Claims Stories" worksheet contains the repair date for each field report.**
g. **Column "D" of the "Engine Info" worksheet contains the build date for each engine that is the subject of a field report identified in response to Request No. 2.**

h. Column "E" of the "Engine Info" worksheet identifies the date on which warranty coverage commenced for each engine that is the subject of a field report identified in response to Request No. 2.

i. The engines that are the subject of the field reports identified in response to Request No. 2 do not have VIN; however, Column "C" of the "Claims Stories" worksheet identifies the VIN of the vehicle in which those engines were installed at the time of the repair.

With respect to the lawsuit identified in response to Request 2(g), Caterpillar has identified the subject engine serial numbers in the spreadsheet in the worksheet "M&A Ser Num." In addition, Caterpillar notes that the information included in the worksheets "Engine Info" and "Claims Stories" includes responsive information related to the bus engines at issue in that lawsuit.

SOURCE: **Caterpillar customer and warranty data bases and Caterpillar Legal Services Division**
Last date information gathered: August 2, 2011

REQUEST NO. 4: State, by make, model, and model year, a total count for all of the following categories of claims, collectively, that have been paid by CAT to date that relate to, or may relate to, the alleged defect in either the subject or the peer engines: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign. Separately, for each such claim, state the following information:

a. CAT's claim number;
b. VIN;
c. Engine's owner or fleet name (and fleet contact person) and telephone number;
d. Engine's make, model, and model year;
e. Engine's build date;
f. Warranty start date;
g. Incident date
h. Engine's mileage at time of repair;
i. Repairing facility's name, telephone number, and address;
j. Labor operation number;
k. Problem code;
l. Replacement part number(s) and description(s);
m. Concern stated by customer; and
n. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in MS Access or a compatible format, entitled "WARRANTY DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.

RESPONSE: Caterpillar has paid a total of 549 claims related to the allege defect in the subject engines. Caterpillar has provided additional information responsive to this Request in the enclosed spreadsheet as follows:

a. **Column "I" of the "Claims Stores" worksheet contains the claim number for each responsive claim.**
b. **The engines that are the subject of the field reports identified in response to Request No. 2 do not have VIN; however, column "C" of the "Claims Stories" worksheet identifies the VIN of the vehicle in which those engines were installed at the time of the repair.**
c. **Columns "Q" through "U" of the "Claims Stories" worksheet contain the customer name and address for each claim identified. As noted in the Response to Request NO. 2, Caterpillar continues its search and collection of telephone numbers for the identified customers, and will supplement its response to this Request once its search and collection is complete.**
d. **All of the claims involve Caterpillar C7 engines. The model year for each engine is identified in column "C" of the "Engine Info" worksheet.**
e. **The engines build date is included in column "D" of the "Engine Info" worksheet.**
f. **The engines warranty start date is included in column "E" of the "Engine Info" worksheet.**
g. **The repair date is identified in column "G" of the "Claims Stories" worksheet.**
h. **The mileage is identified in column "H" of the "Claims Stories" worksheet.**
i. **The repairing dealer code and name are identified in columns "D" and "E" of the "Claims Stories" worksheet. The Caterpillar dealer name, telephone number and address are identified in the "Dealer Information" worksheet.**
j. **Caterpillar does not have labor operation numbers in our warranty claims data as shown in the "Claims Stories" worksheet.**
k. **Caterpillar problem codes are identified in Columns "L", "M"and "N" in the "Claims Stories" worksheet.**
l. **The replacement part number is identified in Column "A" in the "Claims Stories" worksheet.**
m. **The customer concern is identified in Column "O" in the "Claims Stories" worksheet.**
n. **The technician comments are also identified in Column "O" in the "Claims Stories" worksheet.**

SOURCE: Caterpillar customer and warranty data bases
Last date information gathered: July 25, 2011

REQUEST NO. 5: Describe all modifications or changes made by, or on behalf of, CAT in the design, material composition, manufacture, quality control, supply, or installation of the subject equipment, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject equipment. For each such modification or change, provide the following information:

a. The date on which the change was incorporated into production;

b. A detailed description of the change;
c. The reason(s) for the change;
d. The part numbers (service and engineering) of the original component;
e. The part number (service and engineering) of the modified component;
f. Whether the original unmodified component was withdrawn from production,
a. inventory(s) and/or sale, and if so, when;
g. When the modified component was made available as a service component; and
h. Whether the modified component can be interchanged with earlier production
b. components.

RESPONSE:

The subject component, Caterpillar part number 263-3178, was first placed into production in the third quarter of 2006. Caterpillar has neither made any design changes to the subject component since it was first placed into production, nor made modifications to the subject component and assigned a new part number.

SOURCE: Caterpillar product design system
Last date information gathered: July 25, 2011

REQUEST NO. 6: Furnish CAT's assessment of the alleged defect in the subject engine, including:

a. The causal or contributory factor(s);
b. The failure mechanism(s);
c. The failure mode(s);
d. The risk to motor engine safety that it poses; and
e. What warnings, if any, the operator and other people both inside and outside the engine would have that the alleged defect had occurred?

RESPONSE:

a. **Based on Caterpillar's investigation to date, Caterpillar believes that coolant is being heated to a temperature that causes it to degrade and become acidic.**
b. **Based on Caterpillar's investigation to date, Caterpillar believes that the PH of the coolant decreases, causing the hose to weaken from the inside.**
c. **Based on Caterpillar's investigation to date, Caterpillar believes that the weakened hose becomes brittle and allows for a potential coolant leak.**
d. **Based upon the available data and Caterpillar's investigation to date, Caterpillar has not determined that the alleged defect poses a risk to motor vehicle safety. Caterpillar's review of the claims data has identified that there are four known failures where school buses had to be towed from a location on a roadway. The remaining claim stories and claims for towing do not contain enough detail to identify if the vehicle was towed from a roadway location versus, for example, a bus storage location. Further, there have been no reports of the potential for injury, crash or fire from customers or vehicle OEMS. In addition, a coolant leak would be noticed during the daily walk-around inspection as described in the maintenance**

section of the Operation and Maintenance Manual ("OMM"), and there are also engine monitoring systems that would alert the driver to a low coolant level or high coolant temperature, which would signal a loss of coolant. Thus, if the driver conducts the recommended daily inspection and heeds the warnings provided through the engine monitoring systems, any risk of being stranded on the side of the road due to the alleged defect is avoidable. Nonetheless, Caterpillar has a robust continuous product improvement team that is continuing its investigation and is currently testing software and hose materials that may mitigate the failure mode.

e. **A coolant leak would be noticeable to the person conducting a daily walk-around inspection, as described in the maintenance section of the OMM. Also, engine monitoring systems would alert the driver to a low coolant level or high coolant temperature, which would signal a loss of coolant.**

SOURCE: Caterpillar continuous product improvement team, its investigation, and Thomas S. Lane, On-Highway Safety and Compliance Manager.

Please contact me if there are any questions regarding this response.

Sincerely,



Thomas S. Lane
On-Highway Safety & Compliance Manager
Product Safety & Compliance

Tom S. Lane/1D/Caterpillar
08/10/2011 11:23 AM

To Patricia A. Volpe/0A/Caterpillar@Caterpillar
cc
bcc
Subject Fw: Caterpillar Response to PE11-008 IR

Caterpillar: Confidential Green Retain Until: 09/09/2011

Patty - Would you please print the PE11-008 Response file and copy the other 2 files to a CD (note that there are multiple tabs in the spreadsheet) and send via certified mail with return receipt.

I have already emailed, but need to follow-up with an "official" paper mail copy.

Any questions, please see me.

Let me know when sent.

Thanks !

Tom

Tom S. Lane, P.E. | On-Highway Safety & Compliance Manager | Product Safety & Compliance, AH9240
Product Development & Global Technology | Caterpillar Inc. | ☎ 309-675-6496 | Fax 309-636-2911
tom.lane@cat.com

----- Forwarded by Tom S. Lane/1D/Caterpillar on 08/10/2011 08:52 AM -----

Tom S. Lane/1D/Caterpillar
08/03/2011 04:33 PM

To Rick Willard
cc byork@nhtsa.dot.gov
Subject Caterpillar Response to PE11-008 IR

Caterpillar: Confidential Green Retain Until: 08/03/2014

Ric - Please find Caterpillar's response attached.

As always, please contact me with any questions or comments.

Regards.

PE11-008 IR Response Final.pdf PE11-008 Reponses FINAL 8-3-11.xls M&A S&C.pdf

Tom

Tom S. Lane, P.E. | On-Highway Safety & Compliance Manager | Product Safety & Compliance, AH9240
Product Development & Global Technology | Caterpillar Inc. | ☎ 309-675-6496 | Fax 309-636-2911
tom.lane@cat.com