

VOLVO

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Volvo Trucks North America

January 16, 2007 11:19 AM

VIA EXPRESS MAIL

Mr. Richard Boyd, Chief
Medium and Heavy Duty Vehicle Division
Office of Defects Investigation
U.S. Department of Transportation
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Re: **PE06-054**
NVS-214njs

Dear Mr. Boyd:

Please find below Volvo Truck North America's ("Volvo") response to specific questions regarding Volvo Field Service Bulletin 353-003, Taillight Harness Connector Corrosion, which were raised in your letter of November 16, 2006.

In some areas we provided additional information, which we believe, may be helpful in conducting your evaluation.

1. State by model and model year, the number of subject vehicles Volvo has manufactured for sale or lease in the United States. If multiple taillight options are available within each model and model year, further categorize your response accordingly.

The taillight configuration that Field Service Bulletin ("FSB") 353-003 applied to is the Dual Integrated Super60 Incandescent taillights or Volvo Product Code NE-G1. I have enclosed a document that gives a description of this configuration (Reference Enclosure 1).

The following chart provides the number of subject vehicles (i.e. Model Year 2002-2004 vehicles manufactured with NE-G1) manufactured for sale or lease in the United States:

<u>Model</u>	<u>Model Year</u>	<u>Count</u>
VHD	2002	16
VHD/ VHD-2	2003	33
VHD-2	2004	40
VN	2002	268
VN/VN-2	2003	2795
VN-2	2004	5375

Source of information: Volvo's Sales Datamart. The information was gathered on December 12, 2006.

Note: Version 2 (i.e. VHD-2, VN-2) is commonly used in Volvo's service publications in recognition of vehicles equipped with US04 Emission Level engines. The lamps in question are the same for both version 1 and version 2; therefore, I did not separated the MY 2003 production volumes to distinguish which vehicles were version 1 and which were version 2. I will be glad to provide the breakdowns upon request.

2. State the number and provide copies of each of the following, received by Volvo, which relate to, or may relate to the alleged defect in the subject vehicles:

- 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-Part arbitration proceedings where Volvo is or was a party to the arbitration; and,*
- g. Lawsuits, both pending and closed, in which Volvo was a defendant or co-defendant.*

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 vehicle 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 "e" through "g," provide a summary of each event.

Type	Total Number
a. Consumer/ Fleet Complaints	0
b. Field Reports	3
c. Reports involving a crash, injury, or fatality	0
d. Reports involving a fire	0
e. Property damage claims	0
f. Third- party arbitration proceedings	0
g. Lawsuits	0

Source of information: Volvo's Service Database and Legal Department. The information was gathered on December 20, 2006.

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. Vehicle VIN;*
- b. Vehicle's owner or fleet name (and fleet contact person), address, and telephone number;*
- c. Vehicle's model, model year, and taillight option;*
- d. Vehicle's mileage at time of incident, if known;*
- e. Incident date;*
- f. Date of manufacture; and,*
- g. Date warranty coverage commenced.*

If you desire you may submit items "a" through "g" on an electronic disk. Microsoft Office 2003 or compatible format, are preferred formats.

Refer to the Q3 spreadsheet on the electronic disc and attached Enclosure 2, which is entitled "Response to Question # 3."

Source of information: Volvo's Service Database and Legal Department. The information was gathered on December 20, 2006.

4. State by model and model year, a total count for all of the following categories of claims, collectively, that have been paid Volvo to date that relate to, or may relate to, the alleged defect in the subject vehicles: 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. Volvo's claim number;*
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;*
- c. VIN;*
- d. Repair date;*
- e. Vehicle mileage at time of repair;*
- f. Repairing dealer's or facility's name, telephone number, city and state or zip code;*
- g. Labor operation;*
- h. Problem code;*
- i. Replacement part number(s) and description(s);*
- j. Concern stated by customer; and,*
- k. Comment, if any, by dealer/technician relating to claim and/or repair.*

Provide this information in Microsoft Office Excel 2003, or a compatible format, entitled "Warranty Data." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

Model	Model Year	Count
VHD	2002	0
VHD	2003	0
VHD	2004	0
VN	2002	1
VN	2003	19
VN	2004	43

Refer to the Q4 spreadsheet on the electronic disc and attached Enclosure 3, which is entitled "Response to Question # 4."

Source of information: Volvo's Warranty Database. The information was gathered on December 12 and 13, 2006.

5. Pertaining to Volvo Field Service Bulletin 353-003, Taillight Harness Connector Corrosion with TruckLite Incandescent Taillights, please provide the following information:

- a. Provide a complete chronology, listing all activities or events, including, but not limited to, incidents involving the subject components, which led Volvo to issue the communication;*

8/30/04 Volvo Product Reliability issues a Market Quality Report for taillight connector corrosion on vehicle 4V4NC9TJX4N [REDACTED] Service Case # 1-5459401)

8/04/05 Investigation initiated by Volvo Product Development

8/30/05 Volvo met with Truck-Lite to share information of reported corrosion and to discuss a feasible design solution

9/20/05 Volvo decides to switch to Grote Lamps as a product improvement (i.e. connector considered by Volvo to be more robust and therefore less susceptible to corrosion)

2/13/06 Grote lamp introduced into vehicle production

4/7/06 Field Service Bulletin 353-003 released to inform dealers of solution for vehicles that exhibit corrosion at the taillight connector

- b. Provide a listing (in chronological order) of all testing through which the need for the communication was identified and/or assessed, even if the testing was being conducted for another purpose. Please provide a copy of all relevant information from each listed test; and*

There were no tests associated with the communication

- c. State the number of repairs and/or replacements paid for by Volvo that resulted from the communication identified. List your response by repairing dealer (and include the dealer's name, address, and telephone number).*

Field Service Bulletins are used only to communicate a solution to a condition that may develop on a truck during its life; therefore, Field Service Bulletins do not extend warranty. This means that if a truck has the condition and is out of warranty Volvo would not pay to have it repaired and therefore there would not be a warranty claim; however, trucks that have the condition with warranty would be addressed under the warranty provisions.

In summary, there are no replacements paid for by Volvo that were associated with the condition on the subject vehicles.

6. *Provide copies of any service or technical bulletins, product improvement campaign announcements, or advisories, and all other communications concerning the alleged defect that Volvo has issued or is considering issuing, other than 353-003.*

None. Volvo has not issued any additional communications associated with the condition and has no plan to issue any further correspondence on this condition.

7. *Describe all modifications or changes made by, or on behalf of Volvo in the design, material composition, manufacture, quality control, supply, or installation of the subject component from the start of production to date, which relate to or may relate to the alleged defect in the subject vehicles. For each such modification or change, provide the following information:*

- a. *The date or approximate date on which the modification or change was incorporated into vehicle production;*
- b. *A detailed description of the modification or change;*
- c. *The reason(s) for the modification or 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 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 components.*

Also provide the above information for any modification or change that Volvo is aware of which may be incorporated into vehicle production within the next 120 days.

Volvo changed suppliers from Truck-Lite to Grote brand for the light in question because we felt that the Grote lamp offered a more robust connector. The Grote lamp replaced the Truck-Lite in vehicle production on 2/13/06.

It is important to note that both lamps along with their wiring connectors are standard "off-the shelf components (see enclosures 4 and 5).

Listed below are answers to questions "a" through "h" relative to this change:

- a. The new lamps and corresponding wiring harnesses were introduced into vehicle production on 2/13/06.
- b. Changed taillight supplier for lamp in question (i.e. oval incandescent and LED versions). Wiring harnesses were also changed at the rear of the chassis to accommodate the new lamp.
- c. More robust lamp connector

d.

Category	Description	Original Component Engineering	Service Component Engineering
- Lamps	Stop/ Tail Lamp Incandescent	20448977	3099705
	Stop/ Tail Lamp LED	20448979	20448979
	Backup Lamp Incandescent	20448981	85106917
	Grommet	20448989	3948120
- Wiring	Tail lamp harness. Incandescent	20550446	20550446
	Tail lamp harness, LED	20708395	20708395
	Tail lamp harness Adapter, LED	20522605	20522605

e.

Category	Description	Modified Component Engineering (and Service)	Service Component Engineering
- Lamps	Stop/ Tail Lamp Incandescent	20872921	20448977
	Stop/ Tail Lamp LED	20872925	20448979
	Backup Lamp Incandescent	20872928	20448981
	Grommet	20872943	20448989
- Wiring	Tail lamp harness. Incandescent	20867874	20550446
	Tail lamp harness, LED	20867874	20708395
	Tail lamp harness Adapter, LED	20889781	20522605

f. The original unmodified components were withdrawn from production on 2/13/06 but not from sale. Volvo is still selling the unmodified components in the aftermarket to support earlier vehicles that are equipped with the unmodified component.

g. The modified (i.e. new) components were made available in service on the following dates:

Modified Component	Date available in service
20872921	2/20/06
20872925	4/13/06
20872928	2/20/06
20872943	2/9/06
20867874	3/9/06
20867874	3/9/06
20889781	3/13/06

- h. The new and old taillights cannot be directly interchanged; however, as the Field Service Bulletin states, we have developed a kit that offers a repair solution that involves cutting off and replacing the taillight harness connector to accommodate installation of the Grote incandescent taillight.

8. *Provide contact information (name, address, and phone number) for all suppliers of subject components used on the subject vehicles.*

Truck-Lite Company Inc.
310 East Elmwood Avenue
Falconer, NY 14733
Phone: (800) 888-7095
Contact Name: Mr. Jerry Yachetta

9. *Produce two of each of the following:*

- a. *Exemplar samples of each design version of the subject component; and,*
Samples will be submitted to NHTSA on 1/18/07
- b. *Field return samples of the subject component exhibiting the subject failure mode.*
There are no samples available

10. *Furnish Volvo's assessment of the alleged defect in the subject vehicle, including:*

- a. *The causal or contributory factor(s);*
Contamination of terminals from water intrusion may result in corrosion/ degradation of the terminals
- b. *The failure mechanism(s);*
 - Intrusion of water, which may be caused by the connector not being fully seated to the lamp; and/ or,
 - Insufficient grease on connector terminals
- c. *The failure mode(s); and*
Taillight may not illuminate or may intermittently illuminate.
- d. *The risk to motor vehicle safety that it poses.*
Operation of a motor vehicle without taillights can present a risk to the safe operation of the vehicle; however, in this case, Volvo feels that the risk is mitigated due to several factors which are explained in the proceeding paragraphs.

First of all, the taillights are on separate circuits; therefore, it is highly unlikely that this condition will result in both taillights being out at the same time.

Additionally, the taillight configuration in question is almost exclusively used on truck-tractor models, which are used in combination with trailers that are also equipped with taillights.

January 16, 2007

Also, 49CFR396.11 and 13 set forth requirements for motor carriers to perform pre-trip and post-trip inspections on lights and requires that corrective action be taken prior to requiring or permitting a driver to operate the vehicle. Additionally, Volvo has incorporated the functionality in our version 2 vehicles to inform the driver when a taillight is out. This is done by means of a malfunction identifier that is incorporated into the instrument cluster and logging of fault codes that are available through the instrument cluster. Considering the inspection by the motor carrier along with this functionality of the vehicle, prolonged operation of the vehicle without a functioning taillight is unlikely.

Also, the total warranty claims including the ones that may be related to this condition is a very small percentage (less than 1%) of the total subject vehicle population.

In summary, Volvo feels that the condition does not pose a risk to motor vehicle safety.

11. State whether Volvo intends to take any additional actions in this matter.

Volvo feels that the actions that were taken are correct and therefore we are not planning any additional actions on this matter.

Yours truly,



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