



Date: July 30, 2004

**GM-659 (PE04-043)**

**On The Cover:**

**GM Assigned IR Number**  
**NHTSA Assigned Evaluation Number**  
**Number of Books**  
**Allegation Title, Model Year and Make**  
**Date Received from NHTSA**  
**GM Reply Date**

**Book 1:**

**Tab (1).....GM Response Letter to NHTSA**  
**Tab (2)..... NHTSA Letter**  
**Tab (3)..... Attachment 1 with (1) CD**  
**Tab (4).....Attachment 2 with Confidential Material Removed And**  
**Sent To The Office of Chief Counsel**



**GENERAL MOTORS NORTH AMERICA**  
**Structure & Safety Integration**

July 30, 2004

Thomas Z. Cooper, Chief  
 Vehicle Integrity Division  
 Office of Defects Investigation  
 NHTSA Safety Assurance  
 Room #5326  
 400 Seventh Street, S.W.  
 Washington, D.C. 20590

RECEIVED  
 NVS-210  
 2004 AUG -3 A 11:07  
 OFFICE OF DEFECTS  
 INVESTIGATION  
 GM-859

NVS-212am  
 PE04-043

Dear Mr. Cooper:

This letter is General Motors (GM) response to your information request (IR), dated May 27, 2004, regarding allegations of turn signal malfunction on Model Year (MY) 2003 Chevrolet Cavalier and Pontiac Sunfire vehicles. Per a phone conversation on June 2, 2004 with Ali Motamedamin of NHTSA, GM's response is limited to bulb and socket issues relating to the rear turn signal and other functions.

Your questions and our corresponding replies are as follows:

1. State, by model and model year, the number of subject vehicles GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model Year;
  - e. Date of manufacture;
  - f. Date warranty coverage commenced; and
  - g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA."

General Motors is providing the number of subject vehicles produced for sale or lease in the United States by model and model year in Table 1 below:

MAKE/ MODEL	2003 MY
Chevrolet Cavalier	218,392
Pontiac Sunfire	37,813
Total	256,205

TABLE 1 VEHICLE PRODUCTION



The production information requested in 1a-1g is provided on the CD labeled Attachment 1; refer to the Microsoft Access 2000 file in the folder labeled "Response to Q1". The GM database that contains Vehicle Identification Number (VIN) information does not include information on the state where an individual vehicle was sold. GM is providing the state where the vehicle was shipped in response to request 1g. For some of the subject vehicles, which have incomplete warranty files, the GM warranty system does not contain a warranty start date or state where the vehicle was shipped and therefore these fields are blank.

2. State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
  - d. Reports involving a fire, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
  - e. Property damage claims;
  - f. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
  - g. Lawsuits, both pending and closed, in which GM 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 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).

In addition, for items "c" through "g," provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Table 2-1 below summarizes records that could relate to the subject condition.

TYPE OF REPORT	COUNT (INCLUDING DUPLICATES)	GM REPORTS	GM REPORTS CORRESPONDING TO NHTSA REPORTS	LOCATION OF REPORTS (ATTACHMENT)	NUMBER WITH PROPERTY DAMAGE	NUMBER WITH CRASH	NUMBER WITH INJURIES/FATALITIES*	NUMBER WITH FIRE
Owner Reports	375	371	4	2A	0	1	0	0
Field Reports & Technical Assistance System Reports	256	256	1	2B	1	2	0	1
Not-In-Suit Claims	0	0	0	2C	0	0	0	0
Subrogation Claims	1	0	1	2D	0	0	0	1
Third Party Arbitration Proceedings	-	-	-	-	-	-	-	-
Product Liability Lawsuits	-	-	-	-	-	-	-	-
Total (Including Duplicates)	632	628	6	N/A	1	3	0	2
Total (Excluding Duplicates)	626	620	5	N/A	1	3	0	2

TABLE 2-1: REPORT BREAKDOWN

N/A Not Applicable

\* GM is not aware of any injuries or fatalities related to the subject condition.

The sources of the requested information and the last date the searches were conducted are tabulated in Table 2 below.

SOURCE SYSTEM	LAST DATE GATHERED
Corporate Central File	6/07/2004
Customer Assistance Center	6/16/2004
Technical Assistance Center	6/02/2004
Field Information Network Database (FIND)	6/08/2004
Company Vehicle Evaluation Program (CVEP)	6/07/2004
Captured Test Fleet (CTF)	6/07/2004
Early Quality Feedback (EQF)	6/09/2004
Field Product Report Database (FPRD)	6/06/2004
Legal / Employee Self Insured Services (ESIS)	6/17/2004

TABLE 2-2: DATA SOURCES

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. GM's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether a fire is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

An electronic summary of the records included in request 2 is provided on the Attachment 1 CD; refer to the Microsoft Access 2000 folder labeled "Response to Q3".

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method GM used for organizing the documents.

Copies of the records identified in request 2 are provided on the Attachment 1 CD; refer to the Microsoft Access 2000 folder labeled "Response to Q5". The records are viewable by accessing the "Document" and "Attachments" columns. .

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM 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. GM'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 number;
- 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 Access 2000, or a compatible format, entitled "WARRANTY DATA."

The regular warranty claims and extended warranty claims for the subject vehicles that may be responsive to this request, are summarized by model and model year in Tables 5-1 and 5-2. A summary of these warranty claims is provided on the Attachment 1 CD; refer to the folder labeled "Response to Q5". Some of the warranty claims included on the CD may not be related to the alleged defect as explained in response to item 6. There were no Universal Warranty Corporation (UWC) claims found.

MAKE/ MODEL	2003MY
Chevrolet Cavalier	107,727
Pontiac Sunfire	24,877
TOTAL	132,604

Table 5-1 Regular Warranty Claims

Make/ Model	2003MY
Chevrolet Cavalier	37
Pontiac Sunfire	7
TOTAL	44

Table 5-2 MIC Extended Warranty Claims

The sources of the requested information and the last date the searches were conducted are tabulated in Table 5-3 below.

SOURCE SYSTEM	LAST DATE GATHERED
GM North America Claim Adjustment Retrieval Database (CARD- regular warranty)	06/29/2004
Motors Insurance Corporation (MIC - extended warranty)	07/21/2004
Universal Warranty Corporation (UWC - extended warranty)	07/23/2004

TABLE 5-3 DATA SOURCES

GM's warranty database does not contain the vehicle owner's name or telephone number. Only some warranty records include the replacement part numbers, part descriptions and customer concern code descriptions. GM is providing a field labeled "Verbatim Text" in response to request 5k (dealer/technician comment). The verbatim text is an optional field in the GM warranty system for the dealer to enter any additional comments that may be applicable to the warranty claim. The verbatim text field is not required to be completed for every warranty claim.

The MIC extended warranty system does not contain the following information: repairing dealer code, vehicle owner information, trouble code, trouble code description, part number, part description or verbatim. The UWC extended warranty system does not use the GM labor code or labor code description and it does not contain the repairing dealer code, trouble code or trouble code description.

The warranty data provided has limited analytical value in analyzing the field performance of a motor vehicle component. The warranty records do not contain sufficient information to establish the condition of the part at the time of the warranty correction; and service personnel may not consistently use the appropriate labor and trouble codes. Warranty numbers represent claims by our dealers for reimbursement for parts and labor costs incurred in performing warranty service for our customers.

6. Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that GM offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

The GM regular warranty data was collected by searching GM CARD for the 47 labor codes identified on the Attachment 1 CD; refer to the folder labeled "Response to Q6". Of the 47 labor codes searched, only fourteen had claims in GM CARD as shown in Table 6 below. There

were 154 trouble codes associated with those labor codes. The trouble codes and descriptions can be found in the folder labeled "Response to Q6".

LABOR CODE	LABOR CODE DESCRIPTION
B9818	LAMP ASSEMBLY PARK/TURN SIGNAL FT REPLACE
B9817	LAMP ASSEMBLY PARK/TURN SIGNAL LT REPLACE
B9840	LAMP ASSEMBLY, STOP, TAIL/TURN SIGNAL RIGHT-REPLACE
B9841	LAMP ASSEMBLY, STOP, TAIL/TURN SIGNAL LEFT-REPLACE
N0528	BULBS, LAMP EXTERIOR REPLACE
N0680	BULBS, RIGHT-PARK&TURN SIGNAL LAMP-REPLACE
N0681	BULBS, LEFT-PARK&TURN SIGNAL LAMP-REPLACE
N0780	BULBS, RIGHT-STOP, TAIL&TURN LAMP-REPLACE
N0781	BULBS, LEFT-STOP, TAIL&TURN LAMP-REPLACE
N0912	SOCKET, LAMP (EXTERIOR) REPLACE
N1750	FLASHER, HAZARD WARNING- REPLACE
N1760	FLASHER, TURN SIGNAL REPLACE
N2833	RELAY, EXTERIOR LIGHTING- REPLACE
N8812	WIRE CONN, EXTERIOR LIGHTING REPAIR

TABLE 6

The MIC extended warranty data was collected by searching the same labor codes as the regular warranty search. The UWC extended warranty data was searched for the labor code description "Enhanced Electrical Miscellaneous".

Due to the generality of some of the GM labor code description categories regarding the specific component repaired or replaced under that labor code, some of the warranty claim records provided in response to Item 6 may not be related to failure of the turn signal/ brake/ tail lamp bulb to illuminate. For example, labor code "N0912 - Socket, Lamp Exterior - Replace" is not only used for warranty claims in which the rear lamp socket is replaced but the same labor code is also used for replacement of other exterior bulb sockets such as those for headlamps, daytime running lamps, front turn signal lamps, and parking lamps.

The subject vehicles are covered by a bumper-to-bumper new vehicle warranty for three years or 36,000 miles whichever occurs first. Many different extended warranty options are available through GM dealerships. They are offered at different prices and for varying lengths of time, based on customer's preference, up to 7 years from the date of purchase or up to a total of 100,000 vehicle miles. The General Motor's warranty system does not contain information on the number of vehicles that have extended warranty coverage.

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents,



or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that GM is planning to issue within the next 120 days.

The bulletins that have been issued by GM that relate to, or may be related to, failure of the turn signal, brake, and/or tail lamp bulb to illuminate on the subject vehicles are identified in Table 7. A copy of each bulletin identified in Table 7 is included on the Attachment 1 CD; refer to the folder labeled "Response to Q7".

DOCUMENT I.D.	DOCUMENT TITLE	ISSUE DATE
1498119	Tail Lamp/Brake Lamp Inoperative 04-08-42-004A	4/15/2004
N/A	GM voicemail log	7/15/2003
N/A	GM voicemail log	5/18/2004
1538044	04-08-42-004A Additional Information	7/15/2004

TABLE 7 BULLETINS

8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, GM. For each such action, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and

f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

The information listed in Table 8 below is a summary of actions performed by GM regarding the alleged defect on the subject vehicles. The non-confidential documents are provided on the Attachment 1 CD; refer to the folder labeled "Response to Q8- non-confidential". The confidential documents are provided on the CD labeled Attachment 2- Confidential; refer to the folder labeled "Response to Q8- confidential".

<p><b>Action:</b> Supplier initiated product improvement <b>Start Date:</b> 2/20/2002 <b>End Date:</b> 12/17/2002 <b>Engineering Group:</b> Guide Lighting Technologies of Mexico, Tricon Industries, Inc., and Trace Laboratories <b>Attachment 1 CD, Response to Q8, Attachment 8A and Attachment 2 CD- Confidential, Response to Q8, Attachment 8A .</b> The supplier requests confidentiality for the test report. <b>Description:</b> Supplier change order, PPAP submission documents, validation test report , and preventative action letter. <b>Summary of Action:</b> Parts approved for production.</p>
<p><b>Action:</b> PRTS+ Data - Incident # N118480 <b>Start Date:</b> 2/07/2003 <b>End Date:</b> 1/18/2004 <b>Engineering Group:</b> GM <b>Attachment 1 CD, Response to Q8, Attachment 8B</b> <b>Description:</b> Incident Report - Problem Resolution Tracking System (PRTS) initiated to reduce warranty for bulbs used on J car turn signal/ brake/ tail light. <b>Summary of Action:</b> Request Red X analysis for problem solving methodology and track progress.</p>
<p><b>Action:</b> PRTS+ Data - Incident # N118587 <b>Start Date:</b> 2/13/2003 <b>End Date:</b> 7/30/2003 <b>Engineering Group:</b> GM <b>Attachment 1 CD, Response to Q8, Attachment 8C</b> <b>Description:</b> Incident Report - Problem Resolution Tracking System (PRTS) initiated for inoperative back up/ brake lights on Pontiac Sunfire due to wire harness connector damage. <b>Summary of Action:</b> A crimp was added to the wire harness to position the connector away from the decklid during the assembly process.</p>
<p><b>Action:</b> GM Vehicle Warranty Engineering "RED X" analysis <b>Start Date:</b> 2/14/2003 <b>End Date:</b> 5/29/2003 <b>Engineering Group:</b> GM <b>Attachment 2 CD- Confidential, Response to Q8, Attachment 8D</b> <b>Description:</b> Red X analysis to reduce warranty for the J car turn signal/ brake/ tail light bulb prematurely falling (inoperative). <b>Summary of Action:</b> Analysis identified that grease was removed for MY 2003 and that its removal was the root cause of lamp/ socket failure.</p>
<p><b>Action:</b> GM Internal Product Investigations <b>Start Date:</b> 1/21/2004 <b>End Date:</b> 2/2004 <b>Engineering Group:</b> GM <b>Attachment 2 CD- Confidential, Response to Q8, Attachment 8E</b> <b>Description:</b> Presentation materials. <b>Summary of Action:</b> Compiled warranty analysis and root cause information. Conclusion from warranty analysis was that nearly all incidents would occur during the warranty period.</p>

**Action:** Investigate repeat field failures of rear lamp/socket on MY2003 J cars.

**Start Date:** 2/16/2004

**End Date:** 7/19/2004

**Engineering Group:** GM Brand Quality and Purchasing

**Attachment 1 CD, Response to Q8, Attachment 8F**

**Description:** Determine root cause of repeat failures.

**Summary of Action:** Service parts did not have the grease re-instated. The service bulletin and voice message advised repair personnel to add grease to the replacement part as well as to check and grease the opposite socket. In the cases where there are multiple failures, GM has learned that grease was not added. To address this issue, the service parts process was changed to add grease and GM replacement stock was returned to the supplier to have the grease applied.

**TABLE 8 SUMMARY OF ACTIONS**

9. Describe all modifications or changes made by, or on behalf of, GM 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 GM is aware of which may be incorporated into vehicle production within the next 120 days.

The modification information responsive to items 9a - 9h is summarized on the Attachment 1 CD; refer to the folder labeled "Response to Q8".

10. Produce one of each of the following:
- a. Exemplar sample of each design version of the subject component;
  - b. Field return sample of the subject component exhibiting the subject failure mode; and
  - c. Any kits that have been released, or developed, by GM for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

There are two versions of the turn signal lamp socket. The part numbers and descriptions are listed in Table 10. The sample parts GM is providing in response to 10a are the current production version with the grease applied and the bulb installed.

GM is providing one field return sample of each socket part number for 10b.

GM does not offer any kits that have been released or developed for use in service repairs specifically related to the subject condition. The service parts (10c) being provided do not have grease or the bulb installed. The bulb is serviced separately and is provided separately. The part number can be found on Table 10. The service lamp sockets included grease prior to the MY2003 production change to remove it. The stock was replenished with parts without grease. GM replacement sockets that include grease will be available in 6-8 weeks.

PART NAME/DESCRIPTION	PART NUMBER	NEW SERVICE PART NUMBERS
Socket- Tail Lamp/Brake with rear side marker	18522273	89025035
Socket- Tail Lamp/Brake without rear side marker	18519904	89025036
Bulb - Turn signal/ brake/ tail light-trade #3057	09441839	N/A

TABLE 10 SUBJECT COMPONENTS

11. State the number of each of the following that GM has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):

- a. Subject component; and
- b. Any kits that have been released, or developed, by GM for use in service repairs to the subject component/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number) Also identify by make, model and model year, any other vehicles of which GM is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

An electronic summary table of the requested service part information for the subject component is provided on the Attachment 1 CD; refer to the Microsoft Excel file in the folder labeled "Response to Q11". The bulb is a used across many makes and models from 1988-2006 model years. It is a standard bulb that is used for multiple lighting applications.

Monthly service part sales are available for the past 24 months. These sales numbers represent total sales to dealers worldwide. This data has limited analytical value in analyzing the field performance of a motor vehicle component because the records do not contain sufficient information to establish the reason for the part sale. It is not possible from this data to determine the number of these parts that have been installed in the subject vehicles or the number remaining in dealer or replacement part supplier inventory.

12. Furnish GM's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);

- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses;
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and
- f. The reports included with this inquiry.

One contributory factor for inoperative rear turn signal was the deletion of thermal-mastic grease from the lamp socket in MY 2003. Thermal-mastic grease in the lamp sockets of the subject vehicles reduces or prevents arcing due to the loose fit between the bulb and the socket terminals. It also dissipates heat and prevents melting of the socket material or burning of the socket contacts. Temperatures at the bulb-socket interface that exceed the thermal limitations of the socket material can cause the socket to deform permanently, reducing the contact pressure between the leads in the sockets and the contacts on the bulb, creating a potential for electrical arcing and subsequent burning of the socket contacts. This can cause the affected bulb to exhibit flickering initially that may warn observers of the condition, followed by an inoperative bulb.

For MY 2003 Pontiac Sunfire vehicles, an infrequent contributory factor which may result in inoperative rear lamp assemblies was a damaged rear wire harness connector. Due to the position of the wire harness during the assembly process, it was possible to pinch the wires between the decklid and the waterfall area of the trunk. The rear wiring could potentially get severed near the socket when closing the trunk, resulting in inoperative rear lamps.

Visibility of the rear of the vehicle during braking will be maintained by the center high-mounted stop lamp (CHMSL) and the remaining operable brake lamp. Testing showed that the socket contacts most likely to open first in this situation are for the higher current filaments (turn signal and brake function). In the test, 33 of 37 burned contacts were the turn signal and brake contact and only four were the tail light contact. The tail light function is less likely to fail first because the low current filament contacts were less likely to experience this condition. Additional visibility features include reflectors and, on certain models, side marker lamps.

The probability of both left and right rear lamp assemblies simultaneously becoming inoperative on a given vehicle is dependent on the complex interaction of several variables; built-in part-to-part variation among bulbs, sockets, built-in variation in the physical interfaces among the component parts of each assembly, side-to-side variation in vehicle structural rigidity, and side-to-side variation in lamp fastener joint integrity. GM's understanding of the condition is that it is infrequent that both rear lamp assemblies will become inoperative at the same time due to the complex interaction of these variables.

The probability of one lighting function or both lighting functions existing in an inoperative state simultaneously on a given vehicle, regardless of when each side becomes inoperative depends on the vehicle's cumulative tail lamp service history; the length of time a failure on one side goes undetected and/or un-repaired; and the specific type and/or quality of repair(s) conducted.

There is warning to the driver of an inoperative rear turn signal/ brake/ tail light bulb. When the rear turn signal bulb is non-functional, the driver is notified on activation of the turn signal indicator, as required by FMVSS 108. The turn signal indicator arrow flashes and the audible feedback cycles significantly faster than usual. This feature is described in the owner's manual. If the vehicle is equipped with cruise control, the driver may notice that the cruise control will disengage when activating the turn signals or not engage at all when the rear bulb(s) are inoperative.

GM has made available to its dealers service instructions that will assure that customers' vehicles are repaired effectively and minimize the likelihood of repeat failures. With continued use of those service instructions and the forthcoming availability of replacement sockets with grease, GM expects the occurrence rate to decline.

There are no reports of injury as a result of an alleged inoperative turn signal/ brake lamp.

The 16 reports included with this inquiry may have resulted from the contributory factors noted above. For the eleven reports where the VIN was provided, these vehicles were built and/ or serviced during the time period when the grease was removed from the sockets. GM has not examined the parts that are the subject of the reports; therefore, GM has not identified the specific contributory factors related to each of the complaints.

Because of redundant lighting, immediate warning to drivers of turn signal lamp failures, and service methods and parts that will reduce future occurrences, GM does not believe an unreasonable risk to safety exists. The absence of significant adverse consequences to date with a substantial rate of warranty repairs indicates that the risks associated with this failure mode are very low.

\* \* \*

General Motors requests that the document stamped "GM Confidential" included in Attachment 8D and 8E, be afforded confidential treatment by the NHTSA. This information is not customarily made public by General Motors and contains trade secrets and commercial information which is privileged or confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and 49 U.S.C. Section 30167(a).

This information can be used by competitors to identify quality and performance problems or differences, thereby enabling them to improve their own products, without the expenditures associated with the evaluation of products, all at the expense of General Motors. Attachment 8A, 8D, and 8E contains commercial information the disclosure of which would likely result in substantial competitive harm.

General Motors treats the above material as confidential proprietary information available only to authorized General Motors personnel and not otherwise available to the public. The documents are maintained under a record-keeping system which is intended to control dissemination of this material within General Motors, and to assure that it is not disseminated outside the Corporation, except as described in the attached certification made pursuant to 49 CFR Part 512.4(e).

To the best of our knowledge, no prior determinations of the confidentiality of these documents have been made by the NHTSA, other Federal Agencies, or the Federal Courts. Documents such

as those contained in Attachment 8A, 8D, and 8E, however, have, to the best of our knowledge, normally been granted confidential treatment by the NHTSA in the past.

The document subject to this request for confidentiality has been clearly stamped "GM CONFIDENTIAL". If a request for disclosure of any or all of this information is received by the NHTSA, General Motors requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

GM claims that certain information, in documents that are part of lawsuit and claims files maintained by the GM Legal Staff, is attorney work product and/or privileged. That information includes notes, memos, reports, photographs, and evaluations by attorneys (and by consultants, claims analysts, investigators, and engineers working at the request of attorneys). GM is producing responsive documents from claims files that are neither attorney work product nor privileged and withholding those that are attorney work product and/or privileged.

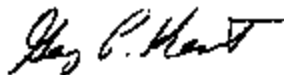
This response is based on searches of General Motors Corporation (GM) locations where documents determined to be responsive to your request would ordinarily be found. As a result, the scope of this search did not include, nor could it reasonably include, "all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM (including all business units and persons previously referred to), who are or, in or after May 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
- b. Testing, assessment or evaluation;
- c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
- d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers."

This response was compiled and prepared by this office upon review of the documents produced by various GM locations, and does not include documents generated or received at those GM locations subsequent to their searches.

Please contact me if you require further information about this response or the nature or scope of our searches.

Sincerely,



Gay P. Kent

Director

Product Investigations

Attachments



U.S. Department  
of Transportation  
National Highway  
Traffic Safety  
Administration

MAY 27 2004

400 Seventh Street, S.W.  
Washington, D.C. 20590

*GM-659*  
*Mary Kaddell*  
*Kim Bessette*  
*Original Received*  
*6-2-04*

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Gay P. Kent, Director  
Product Investigations, Structure and Safety Integration  
General Motors Corporation  
Mail Code 480-106-304  
30500 Mound Road  
Warren, MI 48090-9055

NVS-212am  
PE04-043

Dear Ms. Kent:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE04-043) to investigate allegations of Alleged Turn Signal Malfunction in MY 2003 Chevrolet Cavalier and Pontiac Sunfire vehicles manufactured by General Motors Corporation, and to request certain information.

This office has received 15 reports of alleged turn signal malfunction in MY 2003 Chevrolet Cavalier and Pontiac Sunfire vehicles. A copy of each of the reports is enclosed for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2003 Chevrolet Cavalier and Pontiac Sunfire vehicles manufactured for sale or lease in the United States.
- **Subject component:** all turn signal bulb socket terminals manufactured on the subject vehicles.
- **GM:** General Motors Corporation, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM



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888-327-4236



(including all business units and persons previously referred to), who are or, in or after May 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
- b. Testing, assessment or evaluation;
- c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
- d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.

- **Alleged defect:** Alleged Turn Signal Malfunction.

- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by GM, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document, which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by GM or not.

If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as GM has previously provided a document to ODI, GM may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After GM's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject vehicles GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model-Year;
  - e. Date of manufacture;
  - f. Date warranty coverage commenced; and
  - g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA."

2. State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that

a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;

- d. Reports involving a fire, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- e. Property damage claims;
- f. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
- g. Lawsuits, both pending and closed, in which GM 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 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).

In addition, for items "c" through "g," provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g", identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

- 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. GM's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether a fire is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

- 4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method GM used for organizing the documents.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM 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. GM'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 number;
- 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 Access 2000, or a compatible format, entitled "WARRANTY DATA."

6. Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that GM offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.
7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that GM is planning to issue within the next 120 days.
8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, GM. For each such action, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

9. Describe all modifications or changes made by, or on behalf of, GM 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 GM is aware of which may be incorporated into vehicle production within the next 120 days.

10. Produce one of each of the following:
- a. Exemplar sample of each design version of the subject component;
  - b. Field return sample of the subject component exhibiting the subject failure mode; and
  - c. Any kits that have been released, or developed, by GM for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.
11. State the number of each of the following that GM has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):
- a. Subject component; and
  - b. Any kits that have been released, or developed, by GM for use in service repairs to the subject component/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number) Also identify by make, model and model year, any other vehicles of which GM is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

12. Furnish GM's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses;
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have had that the alleged defect was occurring or subject component was malfunctioning; and
- f. The reports included with this inquiry.

This letter is being sent to GM pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. GM's failure to respond promptly and fully to this letter could subject GM to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$5,000 per day, with a maximum of \$15 million for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond to ODI information requests.

If GM cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, GM does not submit one or more requested documents or items of information in response to this information request, GM must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

GM's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by July 16, 2004. Please refer to PB04-043 in GM's response to this letter. If GM finds that it is unable to provide all of the information requested within the time allotted, GM must request an extension from me at (202) 366-5218 no later than five business days before the response due date. If GM is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information GM then has available, even if an extension has been granted.

If GM claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, GM must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (68 Fed. Reg. 44209 et seq; July 28, 2003), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. GM is required to submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Mr. Ali Motamedamin of my staff at (202) 366-7021.

Sincerely,



Thomas Z. Cooper, Chief  
Vehicle Integrity Division  
Office of Defects Investigation