



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

RECEIVED  
NVS-215

May 7, 2004

MAY 11 P 12:54

Thomas Z. Cooper, Chief  
Vehicle Integrity Division  
Office of Defects Investigation  
NHTSA Safety Assurance  
Room #5328  
400 Seventh Street, S.W.  
Washington, D.C. 20590

OFFICE OF  
DEFECTS INVESTIGATION

GM-652

NVS-212peo  
RQ04-002

Dear Mr. Cooper:

This letter is General Motors (GM) response to your Recall Query Information request (IR), dated February 25, 2004, regarding alleged energy absorbing loop deployment of the driver's seat belt assembly during rollover crashes, on 1997 model year Chevrolet S-10 and GMC Sonoma Pickup vehicles.

Your questions and our corresponding replies are as follows:

1. State, by model, model year and seating position(s), the number of subject vehicles GM has manufactured for sale or lease in the United States. In addition, state, by model, model year and seating position(s) the number of other vehicles containing an energy-absorbing loop management system 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." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

The number of subject vehicles GM has manufactured for sale or lease in the United States is shown in Table Q1-1. An electronic summary of the production data is provided on the CD identified as Attachment 1; refer to the Microsoft Access 2000 file in the folder labeled "Response for Q1 -PRODUCTION DATA." This data was collected from the GM Claims Analysis Retrieval Database (CARD) on March 22, 2004. GM is providing production counts of Utility vehicles based on a verbal agreement with NHTSA in mid-March 2004.

VEHICLE	PICKUP	UTILITY	TOTAL
Chevrolet	180,037	211,708	391,745
GMC	38,887	73,278	111,965
Oldsmobile	0	27,731	27,731
Isuzu Hombre	11,852	0	11,852
Total	230,576	312,715	543,291

TABLE Q1-1 PRODUCTION DATA SUMMARY

**Product Investigations**

Mail Code: 480-108-304 • 80500 Mound Road • Warren, MI 48090-8055  
Phone: (586) 986-8029 • Fax: (586) 947-2315  
GM's Response



2. State the number of each of the following, received by GM, or of which GM are 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. Property damage claims;
- e. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "d," 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 "e" through "f," 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 Q2-1 summarizes the reports to GM that could relate to the subject condition. The FARS data are reported separately in response to question 8.

TYPE OF REPORT	COUNT (INCLUDING DUPLICATES)	GM REPORTS	GM REPORTS CORRESPONDING TO NHTSA REPORTS	NUMBER OF REPORTS ALLEGING PROPERTY DAMAGE	NUMBER OF REPORTS ALLEGING FATALITIES	LOCATION OF REPORTS (CD ATTACHMENT 1)
Owner Reports	0	0	0	0	0	Not Applicable
Field Reports	1	0	1	0	1	Folder labeled "Response to Q2" in folder 2B
Not-In-Suit Claims	0	0	0	0	0	Not Applicable
Subrogation Claims	0	0	0	0	0	Not Applicable
3rd Party Arbitration Proceedings	0	0	0	0	0	Not Applicable
Product Liability Lawsuits*	1	0	1	0	1	Folder labeled "Response to Q2" in folder 2F
Total (Including Duplicates)	2	0	2	0	2	Not Applicable
Total (Excluding Duplicates)	2	0	2	0	2	Not Applicable

TABLE Q2-1: REPORTS FOR GM852/RQ04-002

\* A detailed report of this lawsuit is reported as part of the ESIS field investigations on the CD identified as Attachment 2 GM Confidential. See the folder labeled "Response to Q6 GM Confidential" in folder labeled "ESIS field investigation GM Confidential."

The sources of the requested information and the last date the searches were conducted are tabulated in Table Q2-2 below.

SOURCE SYSTEM	LAST DATE GATHERED
Corporate Central File	03/02/2004
Customer Assistance Center	03/23/2004
Technical Assistance Center	03/18/2004
Field Information Network Database (FIND)	03/16/2004
Field Product Report Database (FPRD)	03/16/2004
Company Vehicle Evaluation Program (CVEP)	03/16/2004
Captured Test Fleet (CTF)	03/16/2004
Legal / Employee Self Insured Services (ESIS)	03/18/2004

TABLE Q2-2: 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:
- GM's file number or other identifier used;
  - The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - Vehicle's VIN;
  - Vehicle's make, model and model year;
  - Vehicle's mileage at time of incident;
  - Incident date;
  - Report or claim date;
  - Whether a crash is alleged;
  - Whether property damage is alleged;
  - Number of alleged injuries, if any; and
  - Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

An electronic summary of the records included in Item 2 is provided on the CD identified as Attachment 1; refer to the Microsoft Access 2000 file in the folder labeled "Response to Q3 - REQUEST NUMBER TWO DATA." GM has organized this summary by GM file number within each attachment.

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.

Refer to the Table Q2-1 above. The reports are provided on the CD identified as Attachment 1; refer to the folder labeled "Response to Q2" in labeled folders "2B Field Report" and "2F

Product Liability Lawsuit". GM has organized the reports by GM file number within each attachment.

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." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

GM searched Claims Analysis Retrieval Database (CARD - regular warranty), Motors Insurance Corporation (MIC - extended warranty) and Universal Warranty Corporation (UWC - extended warranty) databases. Searches were completed on March 19, 2004.

GM found 1 warranty report for the subject vehicles that may be related to the subject condition on GM vehicles for sale or lease in the U.S. A summary of warranty claim that may relate to the subject condition on GM vehicles for sale or lease in the U.S. is provided on the CD identified as Attachment 1; refer to the Microsoft Access 2000 files in the folder labeled "Response to Q5 - WARRANTY DATA."

GM concluded that none of the other warranty reports were related to the alleged defect due to the collision force required to deploy the seat belt energy-absorbing loop during rollover crashes. Given the definition of defect and the severity of an incident necessary for loop deployment, the vehicle most likely would be totaled, so the absence of repair or replacement under these circumstances is not surprising.

GM's warranty database does not contain the following information: vehicle owner's name or telephone number, replacement part number description, repairing dealer's name, customer concern statement, or dealer/technician comment. In addition to GM's warranty database exclusion, the MIC database does not contain the following information: dealer's phone number, problem code, or part number. The verbatim text is an optional field, not required to be completed for every warranty claim. It is for the dealer to enter any additional comments that may be applicable to the warranty claim.

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 regular warranty data was collected from the GM CARD database by searching for the labor codes and trouble codes listed in Tables Q6-1 and Q6-2. Extended warranty data was collected from MIC by searching for the labor codes listed in Table Q6-1.

LABOR CODE	DESCRIPTION
C8041	Retractor, LF
C8021	Safety belt, L-Frt Buckle Side-Repl
C9181	Safety belt assembly, Lt Front-Repl

TABLE Q6-1: LABOR CODES USED IN CARD & MIC SEARCH

TROUBLE CODE	DESCRIPTION
3Z	Ruptured

TABLE Q6-2: TROUBLE CODES USED IN CARD SEARCH

UWC does not offer extended coverage for Seat Belts.

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.

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 manufacturer's short name is planning to issue within the next 120 days.

GM has identified the following service bulletins that may relate to the alleged defect in the subject vehicles and is provided on the CD identified as Attachment 1; refer to the folder labeled "Response to Q7":

Driver's Safety Belt Buckle Recall Bulletin #03020 - (August, 2003)  
 Driver's Safety Belt Buckle Recall Bulletin #03020A - (October, 2003)  
 Info - Seat Belt System Replacement Guidelines for Vehicles Involved in Collisions #01-09-40-002 - (06/21/2001)

GM has not identified any such draft communications that GM is planning to issue within the next 120 days.

The preceding information was collected from GM Service Operations. The data collection was completed on March 16, 2004.

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 (including those performed on S/T utility vehicles in support of 03V-117). For each such action, provide the following information:

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

Table Q8-1 contains a summary of the reports found on the CD identified as Attachment 1; refer to the folder labeled "Response to Q8":

TITLE	START DATE	END DATE	OBJECTIVE	ORGANIZATION	RESULTS
GM Seat Belt Component Test Reports	Aug. 2001	Dec. 2001	GM Requested to TRW to conduct seat belt energy absorbing loop tests to evaluate performance to design specifications.	GM Field Performance Assessment	5 out of 8 seat belts met or exceeded the burst and tear attaching load requirements of the energy-absorbing loop.
NCAP Chart	Mar. 2004	Mar. 2004	Summarize NCAP test reports of MY 1996-1998 Pickups and Utilities	GM	Test reports are summarized and graphed.
TRW Chart for FPE Entry	Dec. 1995	Dec. 1995	Validate Energy-Absorbing seat belt buckle tear and burst stitch	TRW	Data collected and all samples tested within specification.
Statistical analysis of FARS data	Oct. 2002	Oct. 2002	Evaluate statistical significance of FARS data	GM	See Field Performance Evaluation report.

TABLE Q8-1: TESTING/ANALYSIS RELATING TO THE SUBJECT CONDITION

Table Q8-2 contains a summary of the reports found on the CD identified as Attachment 2 GM Confidential; refer to the folder labeled "Response to Q8 GM Confidential":

Title	Start Date	End Date	Objective	Organization	Results
Engineering Test Reports	Jan. 1995	Apr. 1996	Test to meet FMVSS 208 and GM Internal Restraint System Evaluation Considerations	GM Product Engineering	FMVSS 208 and GM Internal requirements met for both active and passive restraint system.
ESIS Field Investigations	Mar. 2001	Mar. 2003	Investigate and study incidents reported in FARS database	GM	Alleged defect incidents on utility vehicles require corrective measure.
FMVSS 208, 209, 210 Compliance Reports	Mar. 1995	Mar. 1997	Report crashworthiness test results of 1997 S/T Utility and Pickup vehicles	GM Product Engineering	1997 S/T Utility and Pickup vehicles met or exceeded the compliance requirements
GM Field Performance Evaluation Report document	Feb. 2003	Mar. 2003	Summarize and present the condition of Utility and Pickup vehicles seat belt assembly performance.	GM	GM decided to conduct a safety-recall on 1997 S/T utility vehicles.
GM Performance Assessment Committee Report	May 1999	May 1999	Report of driver side component changes and review occupant performance criteria.	GM Product Engineering	PAC concurred that occupant performance of 1997 S/T Utility and Pickup vehicles met GM's requirements.
GM Presentation to NHTSA	Feb. 2004	Mar. 2004	Explain differences in field performance of utility vs. pickup vehicles.	GM Product Investigations	Met with NHTSA on March 10, 2004 and presented the information.
Utility Recall Remedy Test Report	Oct. 2002	Mar. 2004	Run utility vehicle FMVSS 208 frontal barrier test for a non-energy-absorbing buckle.	GM	Utility vehicle with energy-absorbing buckle met or exceeded the compliance requirements
Barrier Test Acknowledgement	Jun. 1998	Jun. 1998	Acknowledgement of barrier test compliance	GM Product Engineering	Appropriate GM engineers and management approved.
Statistical analysis of FARS data	Oct. 2002	Oct. 2002	Evaluate statistical significance of FARS data	GM	See Field Performance Evaluation report.

TABLE Q8-2: TESTING/ANALYSIS RELATING TO THE SUBJECT CONDITION

- 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:

- The date or approximate date on which the modification or change was incorporated into vehicle production;
- A detailed description of the modification or change;
- The reason(s) for the modification or change;
- The part numbers (service and engineering) of the original component;
- The part number (service and engineering) of the modified component;
- Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- When the modified component was made available as a service component; and
- 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.

Table Q8-1 contains a summary of the reports found on the CD identified as Attachment 1; refer to the folder labeled "Response to Q8":

DESCRIPTION OF THE MODIFICATION	DATE OF PRODUCTION MODIFICATION	REASON FOR MODIFICATION	PART NUMBERS OF ORIGINAL COMPONENT	PART NUMBER OF MODIFIED COMPONENT	WITHDRAWN FROM PRODUCTION &/OR SALE	MODIFICATION AVAILABLE IN SERVICE	MODIFICATION INTER-CHANGABLE WITH EARLIER COMPONENT
Engineering Work Order ABPKT to release allied division and outside vendors originated drawing revisions	Mar. 1998	Quality suppliers to release drawings with approval of Design Responsible Engineer	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Engineering Work Order ASCCW to release seat belt assembly without energy absorbing loop for Service	Aug. 2003	Service Only	Various	Various	None for Production. Dispose for Service	None	Interchangeable

TABLE Q8-1: MODIFICATIONS

Table Q8-2 contains a summary of the report found in hard copy Attachment GM Confidential; refer to the folder labeled "Response to Q8 GM Confidential":

DESCRIPTION OF THE MODIFICATION	DATE OF PRODUCTION MODIFICATION	REASON FOR MODIFICATION	PART NUMBERS OF ORIGINAL COMPONENT	PART NUMBER OF MODIFIED COMPONENT	WITHDRAWN FROM PRODUCTION &/OR SALE	MODIFICATION AVAILABLE IN SERVICE	MODIFICATION INTER-CHANGABLE WITH EARLIER COMPONENT
Engineering Drawings of seat belt assembly	Aug. 1998	Added GM2752M Impact location	16727789 15727779	None	None	None	None

TABLE Q8-2: MODIFICATIONS GM CONFIDENTIAL



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

- a. Exemplar samples of each design version (for each seating position) of the subject component;
- b. Exemplar samples of the design version used in the driver seating position in the vehicles associated with 03V-117;
- c. Field return samples of the subject component exhibiting the deployed mode;
- d. 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; and
- e. Any kits that have been released, or developed, by GM for use in service repairs to the vehicles associated with 03V-117.

- a. GM released one original design version of the seat belt assembly with four different colors for both production and service. Two samples of the driver seat belt assembly for Bucket seat in Graphite color are provided with this response. Both seat belt assemblies are cut along the side to reveal the mechanism of the energy-absorbing loop. One of the seat belt energy-absorbing loops was cut by a knife to show the stitching tears. GM was unable to locate two samples of the driver seat belt assembly for bench seat applications.
- b. Two samples of the driver seat belt assembly for Bucket seats and two samples for Bench seats in Graphite color are provided with this response.
- c. Due to the infrequency and severity events associated with the alleged defect, no pickup vehicle field return samples are available.
- d. No kits have been released or developed.
- e. No kits have been released or developed. A seat belt bolt removal tool (BO-47549) was released with 03V-117. GM can provide this tool to NHTSA if requested.

**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 CD identified as Attachment 1; refer to the Microsoft Excel file in the folder labeled "Response to Q11." GM does not offer any kits that have been released or developed for use in service repairs specifically related to the subject condition.

These sales numbers represent sales to dealers in the US and Canada. 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.

This table contains service part numbers, part description, part usage information including other GM vehicles that contain the identical component, part sales figures by month and calendar year and the supplier's name and address, contact name and phone number. The General Motors Service Parts System does not contain a title of a contact person for each component and is therefore unable to provide this information.

The source of the requested information, current as of March 30, 2004, is GM Service Parts Operations.

**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 ramification to other seating position(s);
  - e. The applicability to defect found in the S/T utility vehicles (03V-117)
  - f. The risk to motor vehicle safety that it poses;
  - g. 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
  - h. The reports included with this inquiry.
- a. GM is aware of two extremely severe multiple rollover fatality events with 1997 S/T pickup trucks in which there was a sufficiently high belt load to cause full deployment of the energy absorbing loop and the drivers were ejected. Seat belts operate to mitigate ejection but they cannot prevent it entirely, nor can they guarantee that occupants will not receive fatal injuries. Among pickup trucks in tow-away crashes, about 4% roll over, involve one or more complete turns or roll end-over-end. For occupants of these vehicles with serious to fatal level injuries (Abbreviated Injury Scale 4 or greater), about 29% are in vehicles that roll over one or more complete turns or roll end-over-end.<sup>1</sup> Based upon the severe and violent nature of the two multiple rollover events, it does not appear that the deployment of the drivers' energy-absorbing loop was a causal or contributing factor to the fatal injuries sustained by the drivers of these vehicles.
  - b. GM is not aware of any failure mechanism in the 1997 S/T pickup driver's seat belt buckle assembly. The driver's seat belt buckle assembly contains an energy absorbing loop design mechanism that consists of two distinct and sequential deployment phases. The first phase is achieved with burst stitching that deploys under a load of 1,000 lb +/- 200 lb. The second phase is achieved with tear stitching that requires 450 lb +/- 150 lb of continuous load. Energy management devices similar to this energy-absorbing loop are commonly used in restraint systems throughout the industry to control not only occupant kinematics, but also to manage and balance the loads imparted to the occupant by the restraint system.
  - c. GM is not aware of a failure mode in the 1997 S/T pickup driver's seat belt buckle assembly. In fact, the seat belt assembly system has met all FMVSS 208, 209, 210 and GM's Internal Injury Assessment Reference Value (IARV) safety requirements.

<sup>1</sup> Data from 1997-2002 NASS-CDS

- d. No ramification to other seating positions.
- e. The energy-absorbing loop buckle assembly was implemented in production for 1997 S/T utilities and pickups. The restraint system in both of these products complies with all of the requirements of FMVSS 208, 209, 210 and GM's internal requirements. General Motors voluntarily conducted recall (03V-117) to address an elevated rate of belted driver ejections in severe multiple rollover events in the 1997 S/T utilities for this market segment. After an extensive review of FARS data and the investigation of over 20 rollover incidents involving 1997 S/T pickup trucks, GM has been able to confirm only two incidents in which the energy absorbing loop deployed.

The seat belt assembly energy-absorbing loop is designed to not deploy during impact crashes where driver belt loads of less than 1,000 lb +/- 200 lb occur. When the crash severity level is sufficient to generate belt loads greater than 1,000 lb +/- 200 lb, the energy-absorbing webbing deploys incrementally in response to sustained belt loads. During high speed severe multiple rollover incidents, vehicles may experience significant vehicle to ground impacts that can impart a series of high deceleration events to the driver and generate unexpectedly high belt loads. In most rollover incidents, the driver deceleration events are not severe enough to generate driver belt loads sufficient to deploy the energy-absorbing loop in the driver's seat belt buckle. After an extensive review of the field data it was observed that there were hundreds of rollover incidents where the driver was not ejected and the energy-absorbing loop did not deploy in 1997 S/T utilities. However, the data also revealed an elevated rate of belted ejections in severe multiple rollover events that GM sought to address with recall 03V-117.

The energy-absorbing loop in the driver's seat belt buckle is a mechanical device that will respond to a given input; belt loads of sufficient magnitude and duration. The vehicle dynamics present in the 1997 S/T utilities during severe multiple rollover events that resulted in belt loads of sufficient magnitude and duration to deploy the energy absorbing loop are not evidenced with the same frequency in the rollover events involving 1997 S/T pickups. As stated above in section a., GM is aware of only two incidents with pickups where the energy-absorbing loop deployed in a severe rollover event.

- f. The driver's seat belt buckle assembly in the 1997 S/T pickup does not pose an unreasonable risk to motor vehicle safety. No seat belt system can eliminate all risk to an occupant in every crash configuration. The energy-absorbing loop in the seat belt buckle assembly not only complied with all GM and FMVSS requirements, but in fact operates to optimize the overall restraint of the occupant in a variety of crash configurations. Moreover, as discussed during GM's March 10, 2004 presentation, S/T Pickup field performance is comparable to several peer vehicles with respect to ejection of belted drivers in fatal rollover crashes. (See Table Q8-2)
- g. Since the alleged defect poses no additional risk to motor vehicle safety, no warnings of seat belt malfunction is provided to the driver.
- h. The two Vehicle Owner's Questionnaires appear to be consistent with the alleged defect statement.

\* \* \*

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.

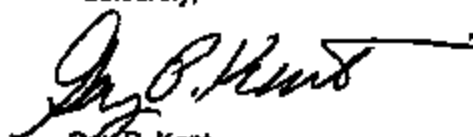
This response is based on searches of General Motors Corporation (GM) locations where documents determined to be responsive to your request would ordinarily be found. As a result, the scope of this search did not include, nor could it reasonably include, "all of its divisions, subsidiaries (whether or 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 1994, 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

FEB 25 2004

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

*My Sin  
Kind's call*

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Gay P. Kant, Director  
Product Investigations  
General Motors Corporation  
Mail Code 430-106-304  
30500 Mound Road  
Warren, MI 48090-9055

NVS-212.poo  
RQ04-002

Dear Ms. Kant:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Recall Query (RQ04-002) to investigate allegations of the energy-absorbing loop in the driver's safety belt buckle assembly may deploy during rollover crashes and increase the risk of partial or full ejection of the occupant in model year (MY) 1997 Chevrolet S-10 and GMC Sonoma Pickup Trucks manufactured by General Motors Corporation, and to request certain information.

This office has received two reports alleging the energy-absorbing loop in the driver's safety belt buckle assembly deployed during a rollover crash in a MY 1997 Chevrolet S-10 pickup truck. In each crash, a belted driver was ejected and received fatal injuries to the head. The alleged defect appears to be consistent with the subject of GM's recall of certain MY 1997 Chevrolet Blazer, GMC Jimmy and Oldsmobile Bravada sports utility vehicles (NHTSA Recall No. 93V-117) to remedy defective driver seat belt buckle assemblies (containing an energy-absorbing loop). 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 1997 Chevrolet S-10 and GMC Sonoma Pickup Trucks containing the subject component manufactured for sale or lease in the United States. In addition, all other MY S-10 and Sonoma trucks utilizing the subject component and manufactured for sale or lease in the United States shall be included.
- **Subject component:** Driver's side energy-absorbing loop seat belt assembly manufactured on the subject vehicles. In addition, all other energy-absorbing loop seat belt assembly in all other seating positions in subject vehicles.



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- **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 its 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 1994, 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, obsolescence, or fixturing; 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:** The energy-absorbing loop in the driver's safety belt buckle assembly may deploy during rollover crashes and increase the risk of partial or full ejection of the occupant.
- **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, judgments, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-built, changes, manuals, publications, work schedules, journals, statistical data, check, portfolio 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 designated 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 the manufacturer 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," "file," "loss," "recall," "will," "recall," "model," "model year," "notice," "property damage," "property damage claim," "reflower," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 575.4.

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.

- i. State, by model, model year and seating position(s), the number of subject vehicles GM has manufactured for sale or lease in the United States. In addition, state, by model, model year and seating position(s) the number of other vehicles containing an energy-absorbing loop management system 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." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

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. Property damage claims;
  - e. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
  - f. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "d," 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 "f," 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 property damage is alleged;



- k. Number of alleged injuries, if any; and
- l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

- 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, recall, 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. Comment stated by customer; and
- k. Comment, if any, by dealer/manufacturer relating to claim and/or repair.

Provide this information in Microsoft Access 2000, 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.

- 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 manufacturer's short name 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 (including those performed on S/T utility vehicles in support of recall NHTSA No. 05V-117). 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 after 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 two of each of the following:

- a. Exemplar samples of each design version (for each seating position) of the subject component;
- b. Exemplar samples of the design version used in the driver seating position in the vehicles associated with NHTSA Recall No. 03V-117;
- c. Field return samples of the subject component exhibiting the deployed mode;
- d. 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; and
- e. Any kits that have been released, or developed, by GM for use in service repairs to the vehicles associated with NHTSA Recall No. 03V-117.

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 ramification to other seating position(s);
- e. The applicability to defect found in the S/T utility vehicles (03V-117);
- f. The risk to motor vehicle safety that it poses;
- g. 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
- h. 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, which 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. § 30166. (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 \$100,000 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 why GM 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 an 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) who withheld, 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 confidential information, must be submitted to this office by April 16, 2004. Please refer to NHTSA-02-100 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) 368-2800 no later than 10 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 request contains confidential commercial material within the meaning of 18 U.S.C. § 1905, GM must submit a separate document identifying the material claimed to be confidential, together with the materials that are the subject of the request, and submit them to the Office of Chief Counsel (NOC-113), National Highway Traffic Safety Administration, 400 North 34th Street, S.W., Washington, D.C. 20592. GM is not to release any documents containing allegedly confidential information until the information has been reviewed and the information claimed to be confidential has been released.

If you have any technical questions concerning this matter, please call Peter C. Ong of my staff at (202) 366-0583.

Sincerely,



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

Enclosure 1, one CD ROM titled Data Collection Disc containing:

- 2 VOs as of 01/20/2004 (10080993 and 853159)
- "PRODUCTION DATA" file
- "REQUEST NUMBER TWO DATE" file
- "WARRANTY DATE" file