GENERAL MOTORS NORTH AMERICA
Structure & Safety Integration

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OFFICE OF DEFECTS INVESTIGATION

February 4, 2005

Richard P. Boyd, Chief
Medium & Heavy Duty Vehicle Division
Office of Defects Investigation
NHTSA Safety Assurance
Room #5320
400 Seventh Street, S.W.
Washington, D.C. 20590

GM-670

NVS-214gtb
RQ04-012

Dear Mr. Boyd:

This letter is General Motors (GM) response to your information request (IR), dated December 2, 2004, regarding the reason(s) that General Motors excluded 1998 through 2004 model year Sonoma and S-10 vehicles from Campaign 04V-129.

Production of the Chevrolet S-10 and GMC Sonoma vehicles ended at the conclusion of the 2003 model year. This information was discussed with Mr. Tom Bowman of your staff and he indicated that the subject vehicles for this inquiry are the 1998-2003 model year (MY) Chevrolet S-10 and GMC Sonoma vehicles.

Your questions and our corresponding replies are as follows:

<u>Complaint Information for 1998 – 2004 model years Sonoma and S10 vehicles</u>

1. **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 received by General Motors since January 1, 1998, pertaining to:**

   (a) Consumer complaints, including those from fleet operators;
   (b) Field reports, including dealer field reports;
   (c) Reports involving an 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 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; and
   (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 "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 are to be counted as 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.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER ONE, RQ04-012 – SONOMA AND 910 COMPLAINT DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

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

Type of Report	Count (Including Duplicates)	GM Reports	GM Reports Corresponding to NHTSA Reports Provided	Location of Reports (Attachment)	Number with Property Damage	Number with Injuries/ Fatalities*
Owner Reports	608	604	4	1A	0	1
Field Reports and Technical Assistance System Reports	14	14	0	1B	0	12
Not-In-Suit Claims	2	2	0	1C	0	2
Subrogation Claims	0	0	0	N/A	0	0
Third Party Arbitration Proceedings	0	0	0	N/A	0	0
Product Liability Lawsuits	0	0	0	N/A	0	0
Total (Including Duplicates)	624	620	4	N/A	0	15
Total (Excluding Duplicates)	621	617	4	N/A	0	13

Table 1-1: Report Breakdown

N/A - Not Applicable

* GM is not aware of any fatalities related to the subject condition and the subject vehicles.

The sources of the requested information and the last dates the searches were conducted are tabulated in Table 1-2 below.

SOURCE SYSTEM	LAST DATE GATHERED
Corporate Central File	12/08/2004
Customer Assistance Center	12/20/2004
Technical Assistance Center	12/14/2004
Field Information Network Database (FIND)	12/16/2004
Field Product Report Database (FPRD)	12/16/2004
Company Vehicle Evaluation Program (CVEP)	01/03/2005
Captured Test Fleet (CTF)	01/03/2005
Early Quality Feedback (EQF)	01/03/2005
Legal / Employee Self Insured Services (ESIS)	12/07/2004

Table 1-2: Data Sources

2. **Separately, for each item (complaint, report, claim, notice, or matter) within the scope of the response to Request No. 1, state the following information:**
   (a) GM's file number or other identifier used;
   (b) The category of the item, as identified in Request No. 1 (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 property damage is alleged;
   (j) Number of alleged injuries, if any; and
   (k) Number of alleged fatalities, if any.

   Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO, RQ04-012 – SONOMA AND S10 COMPLAINT DETAILS DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

   The requested information is provided on the Attachment 1 CD; refer to the Microsoft Access 2000 file in the folder labeled " REQUEST NUMBER TWO, RQ04-012–SONOMA AND S-10 COMPLAINT DETAILS DATA."

3. **Produce copies of all documents related to each item within the scope of Request No. 1. 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 Item 1 are provided in the attachments listed in Table 1-1 on the Attachment 1 CD. GM has organized the records by the GM file number within each attachment.

4. **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 "REQUEST NUMBER FOUR, RQ04-012 – SONOMA AND S10 WARRANTY DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

The 7,911 regular and 712 extended warranty claims for the subject vehicles are summarized by model and model year in Tables 4A and 4B.

Regular Warranty Claims for Cable Replacement (Labor Codes B5750 & B5751)

Model	1998MY	1999MY	2000MY	2001MY	2002MY	2003MY	Total
Chevrolet S-10	941	722	1,996	1,736	762	198	6,354
GMC Sonoma	221	155	507	415	195	64	1,557
Total	1,162	877	2,502	2,151	957	262	7,911

Table 4A

Extended Warranty Claims for Cable Replacement (Labor Codes B5750 & B5751)

Model	1998MY	1999MY	2000MY	2001MY	2002MY	2003MY	Total
Chevrolet S-10	143	59	216	99	30	1	548
GMC Sonoma	30	19	84	23	7	1	164
Total	173	78	300	122	37	2	712

Table 4B

The total number of warranty claims does not represent the total number of broken cables that have been replaced. Analysis of the warranty data indicates that dealers frequently replace both cables when only one cable has broken. The warranty data shows that 4,257 (47%) of the claims do not indicate that the cable was broken.

GM searched the GM North America Claim Adjustment Retrieval Database (CARD-regular warranty), the Motors Insurance Corporation (MIC – extended warranty), and the Universal Warranty Corporation (UWC – extended warranty) databases to collect the warranty data for this response. The warranty data was last gathered on December 12, 2004.

A summary of warranty claims that may relate to the subject condition is provided on the Attachment 1 CD; refer to the Microsoft Access 2000 entitled "REQUEST NUMBER FOUR, RQ04-012 – SONOMA AND S-10 WARRANTY DATA."

GM's warranty database does not contain the following information: vehicle owner's name or telephone number, replacement part number description, or customer concern statement. GM is providing a field labeled "Verbatim Text" in response to request 4K (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: repair dealer name or code, trouble code, trouble code description, part number, or verbatim.

The UWC does not provide extended warranty coverage for tailgate support cables; therefore there are no associated claims for tailgate support cable replacement.

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.

5. **Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 4, 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 for the following labor codes and trouble codes. The MIC extended warranty data was collected by searching only for the labor codes.

LABOR CODE	DESCRIPTION:
B5750	Support, Tailgate Cable - Right - Replace
B5751	Support, Tailgate Cable - Left - Replace

TROUBLE CODE	DESCRIPTION:
1D	Broken
1J	Collapsed
1K	Cracked
1L	Cut
2G	Improperly Cut
4D	Sheared
6C	Component - Inoperative

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.

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.

6. **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.**

GM is not aware of any service, warranty or other documents that relate to, or may relate to the subject condition in the subject vehicles, that GM has issued to dealers, regional or zone offices, field offices, fleet purchasers or other entities.

General Motors is not planning to issue in the next 120 days, any service, warranty or other technical documents or communications to its dealers, regional offices, zone offices or other entities regarding the subject condition in the subject vehicles.

The preceding information was collected from GM Service Operations. The data collection was completed on January 3, 2005.

7. **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(s), from the start of production to date, which relate to, or may relate to, the alleged defect in the subject components.**

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 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 production within the next 120 days.

Provide the table in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER SEVEN, RQ04-012 — SONOMA AND S10 PRODUCT CHANGES."

General Motors did not request, or make, any changes or modifications to the design, material composition, manufacture, quality control, supply, or installation of the subject component(s), from the

start of production to date, which relate to, or may relate to, the alleged defect in the subject components in the subject vehicles.

Testing and analysis conducted by and on behalf of GM has identified a change in the TPE/TPO material used in the tailgate support cable sheathing that significantly contributes to moisture wicking within the cables leading to oxidation and possible fracture. The details of the testing, including specific responses to items 7a - 7h of this request, are contained in GM's response to items 9 and 10 of RQ04-010 dated January 14, 2005. GM continues to address the material change with suppliers to document the specific details and timing of the change.

8. Describe all of the significant differences in the (A) tailgate support cable(s) and (B) the installation, application, function, usage, and/or environment of the tailgate cable support system between the following vehicle configurations:

(a) 1998 through 2004 model year Sonoma and S10 vehicles (i.e., vehicles equipped with similar tailgate support cables as 2000-2004 Sierra and Silverado vehicles but which were not included in Campaign 04V-129) and

(b) Sierra, Silverado, Avalanche, and Escalade EXT vehicles manufactured between October 1998 and October 2003 (i.e., vehicles that are the subject of Campaign 04V-129).

For each of the differences identified, provide GM's assessment of the effects that these differences are expected to have on:

(1) Tailgate support cable integrity (e.g. endurance and fatigue properties, environmental resistance properties, in-use reliability, estimates of useful life, etc.);

(2) The consequences of one or both tailgate cables breaking [e.g. the magnitude of the potential door drop (tipping or displacement) and/or other differences in vehicle design characteristics that could mitigate the frequency or severity of injuries]; and

(3) Indications or warnings that a product failure (breakage) was imminent.

Where possible, support these assessments with quantified data and provide copies of the supporting documentation.

The significant differences in the tailgate support cables used on the subject vehicles and the vehicles included in Campaign 04V-129 are described on the Attachment 1 CD in the folder labeled Attachment 8A.

Differences in the tailgate support cables alone do not significantly affect tailgate support cable integrity, consequences of tailgate support cables breaking or indications that a tailgate support cable breaking is imminent. However, differences in vehicle design, application, function and usage do significantly affect tailgate support cable integrity and consequences of cables breaking.

<u>Vehicle Design and Specifications</u>:

Attachment 8B on the Attachment 1 CD contains photographs illustrating a number of significant vehicle design differences between the subject vehicles and the vehicles included in Campaign 04V-129. These differences affect the integrity of the cables and the consequences of cables breaking.

As shown in the referenced attachment, the S-10/Sonoma pickup trucks are appreciably smaller than the GMT800 Silverado/Sierra pickup trucks. For example, the pickup box floor and tailgate on the S-10/Sonoma Extended Cab (6 ft. box) is approximately 27.5 inches above the ground while the GMT800 Silverado/Sierra Crew Cab (6 ft. box) open tailgate and box floor is approximately 33.5 inches above the ground. Height above the ground of the pickup box floor and tailgate varies slightly

based on model, model year and vehicle options. However, the S-10/Sonoma models are consistently smaller than both the GMT400 and GMT800 Silverado/Sierra models and the pickup box floor and tailgate are closer to the ground. As a result, items can easily be placed in the pickup box of the S-10/Sonoma without opening the tailgate and the tailgate is therefore not opened as frequently as the tailgate on the GMT800 Silverado/Sierra pickup trucks. The lower vehicle height also could mitigate the frequency and severity of injuries as a consequence of broken cables on the S-10/Sonoma pickup truck compared to the GMT800 Silverado/Sierra pickup truck.

In addition, the interior dimensions of the S-10/Sonoma 6 ft. pickup box are; length 72.4 inches, width 55.1 inches, depth 16.5 inches. The volume of the box is approximately 38.2 cubic feet including the rear wheel wells. In comparison, the GMT800 Silverado/Sierra 8 ft. pickup box dimensions are; length 96.0 inches, width 62.2 inches, depth 20.0 inches. The volume of the box is approximately 69.2 cubic feet including the rear wheel wells. The maximum payload capacity of a truck varies depending on the model year, body style size and equipment. The smaller S-10/Sonoma pickup trucks have a lower maximum payload capacity than the GMT800 Silverado/Sierra pickup trucks. For instance, the maximum payload capacity of the S-10/Sonoma Regular Cab (6 ft. box) is 1,837 pounds and the maximum payload capacity GMT800 Silverado/Sierra Regular Cab (8 ft.) box is 5,497 pounds.

These size and payload differences translate into the usage differences detailed below. In general, S-10/Sonoma pickup trucks have less cargo capacity, are used less often for transporting cargo and the tailgate is correspondingly opened less frequently. Moreover, as discussed further below, when the tailgate is opened, the tension on the cables is less than the tension on the cables installed in the GMT400 and GMT800 Silverado/Sierra campaign vehicles.

Geometry:

The mass of the tailgate installed in the S-10/Sonoma pickup trucks is less than the mass of the tailgate installed in the Silverado/Sierra pickup trucks. The S-10/Sonoma tailgate mass is approximately 32.1 lbs. (14.6 kg) including the latches, hinges and handle. The GMT800 Silverado/Sierra (Fleetside) tailgate mass is approximately 46.9 lbs. (21.3 kg) including latches, hinges, molding and handle. The tailgate size and attachment points of the tailgate support cables are also different on the S-10/Sonoma pickup trucks than on the Silverado/Sierra pickup trucks. These differences affect tension on the cables when the same mass acts on the open tailgate. Attachment 8C on the Attachment 1 CD contains tailgate geometry comparison data (including the geometry factor equation) provided in support of this proposition.

Applying the geometry factor equation to the tailgate measurements and cable angle data contained in Attachment 8C for the S-10/Sonoma pickup truck results in a geometry factor of 2.0. When the geometry factor equation is applied to the measurements and cable angle data in the attachment for the GMT800 Silverado/Sierra pickup truck, the geometry factor is 2.8. A lower geometry factor indicates less tension on the cables when an equivalent mass is placed on each tailgate. Thus, when an equivalent mass is placed on the S-10/Sonoma tailgate and the GMT800 Silverado/Sierra tailgate there is less tension on the tailgate support cables of the S-10/Sonoma. The effect of less tension on the cables is less cable fatigue and fewer broken cables.

The displacement of the tailgate drop to the rear bumper (change in angular position and vertical distance) as a result of both of the tailgate support cables breaking differs between the S-10/Sonoma pickup truck and the Silverado/Sierra pickup truck. GM Service Operations measured the angular position of the tailgate from the open position with the support cables connected and the position of the tailgate with the cable disconnected. The S-10/Sonoma tailgate moves a total of 9.3 degrees (+1.8 degrees to -7.5 degrees from horizontal) before coming to rest on the top of the rear bumper. This angular displacement equates to a vertical distance of 0.9 inches at the point the tailgate rests on the bumper. The GMT800 (Silverado/Sierra) tailgate moves a total of 10 degrees (+2 degrees to -8 degrees from horizontal) before coming to rest on the top of the rear bumper. This angular

displacement equates to a vertical distance of 1.1 inches at the point the tailgate rests on the bumper. The GMT400 (Silverado/Sierra) tailgate moves a total of 4.5 degrees (+3.4 degrees to -1.1 degrees from horizontal) before coming to rest on the top of the rear bumper. This angular displacement equates to a vertical distance of 0.8 inches at the point the tailgate rests on the bumper. Therefore, the displacement of the tailgate resulting from broken tailgate support cables on the S-10/Sonoma is lower than the displacement on the GMT800 Silverado/Sierra pickup trucks.

Usage:

GM Vehicle Sales Service and Marketing (VSSM) maintains a Total Customer Enthusiasm (TCE) database. This database summarizes the responses of retail purchasers/lessees of GM trucks to questions related to reasons for their purchase and how they use the vehicle. Attachment 8D, on the Confidential Attachment 1 CD, contains information from the TCE database regarding customer usage of S-10/Sonoma pickup trucks and Silverado/Sierra pickup trucks.

Table 8-1 contains examples of TCE usage information for the S-10/Sonoma and GMT800 Silverado/Sierra pickup trucks that is related to the tailgate and tailgate support cables. The TCE data summarized in Table 8-1 indicates that the S-10/Sonoma pickup trucks are used much less than the Silverado/Sierra pickup trucks to haul large loads or carry bikes, skis, etc. and are not often used on the job. Correspondingly, the S-10/Sonoma tailgate is opened less frequently and the cables are not stressed (under tension) as frequently as with the Silverado/Sierra.

	1999 Model Year		2001 Model Year		2003 Model Year	
USAGE	S10/ Sonoma	Silverado/ Sierra	S10/ Sonoma	Silverado/ Sierra	S10/ Sonoma	Silverado/ Sierra
Daily hauling large items	2%	3%	2%	7%	17%	27%
Weekly hauling large items	7%	16%	13%	12%	17%	27%
Seldom or never use for hauling large items	31%	18%	30%	22%	34%	21%
Seldom or never use for hauling bikes, skis, etc.	52%	48%	58%	56%	65%	61%
Seldom or never use on the job	59%	53%	67%	54%	74%	58%

Table 8-1

The effect that these differences in vehicle design, tailgate geometry and usage have on the tailgate support cables in the subject vehicles is; the cables are not frequently used, not often under tension and therefore, as shown in response to Item 9 below, break less than cables installed in vehicles included in Campaign 04V-129.

9. **Describe the rationale (list and explain the reasons) that led GM to exclude model year 1998 through 2004 model years Sonoma and S10 vehicles from receiving the equivalent remedy as the vehicles that are the subject of Campaign 04V-129.**

Analysis of GM warranty information indicated that tailgate cable breakage occurred at a lower count and lower rate than the vehicles that are the subject of Campaign 04V-129. The warranty rate of incidents per thousand vehicles (IPTV) for the subject vehicles (1998 - 2003 S-10/Sonoma pickup trucks) is in the 2 - 6 IPTV range at 3 years exposure. The warranty data shows an IPTV increase to 16 IPTV at 3 years exposure for vehicles built after June 2000 and then a decline in IPTV to 2.2 IPTV at 3 years exposure for vehicles built after April 2002.

This compares to an IPTV for the 1998 - 1999 Sierra and Silverado vehicles in the 10-15 IPTV range at 3 years exposure. The campaign vehicle warranty data shows an IPTV increase to above 80 IPTV

at 3 years exposure for vehicles built after October 1999. Attachment 9 on the Attachment 1 CD contains warranty data graphs for both the S-10/Sonoma and the Silverado/Sierra vehicles.

The information provided in response to items 8, 10 and 11 of this request further validates GM's decision not to include the subject vehicles in Campaign 04V-129.

10. Furnish General Motors' assessment of the alleged defect in the subject component, including:

(a) The failure mechanism(s);
(b) The failure mode(s),
(c) The risk to motor vehicle safety that posed
(d) 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.

The information, provided in the December 13, 2003 response to PE03-049, regarding failure mechanisms, failure modes and warnings that the subject component is malfunctioning is applicable to this response. The information related to the cable sheathing material change contained in the January 14, 2005 response to RQ04-010 is also relevant to this response.

GM indicated in response to PE03-049, that cable failure results from oxidation of the galvanized coating layer of the carbon steel cables eventually exposing the carbon steel to contaminants, leading to oxidation of the steel. The cable may break if enough of the carbon steel cable has oxidized and the cable is flexed and put under tension. Flexing and tension on the oxidized cable are necessary elements in cable failure. A carbon steel cable that has oxidized is also impacted by the frequency of flexing of the cable. Each time the tailgate is opened, the cable is flexed. Oxidized cables that are frequently flexed and put under loads/tension will break at a higher frequency than oxidized cables that are rarely flexed. Thus specific vehicle use is also a significant factor.

The response to item 6 above explains in detail why the tailgate on the subject vehicles is not used as frequently as full size trucks, and accordingly the cables are not as frequently put under tension. Moreover, even in the infrequent cases of cables breaking on the S-10/Sonoma vehicles geometry characteristics mitigate against the frequency and severity of injuries.

Consequently, complaints of tailgate support cables breaking (0.4 IPTV) and the corresponding frequency and severity of injuries that may result from broken tailgate support cables in the subject vehicles are low. GM thus does not believe there is an unreasonable risk to motor vehicle safety in the subject vehicles posed by the alleged defect.

11. 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 provided in the GM response to RQ04-010, dated January 14, 2005 regarding "actions" that relate to, or may relate to the alleged defect in the subject vehicles, also applies to this response.

* * *

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 1997, 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

GM-670

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

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

DEC 2 2004

Mark Deacon
Original Received
12-13-04

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Gay P. Kent, Director
Product Investigations
General Motors Corporation
30200 Mound Road - Mail Code: 480-111-E18
Warren, MI 48090-9010

NVS-214gtb
RQ04-012

Dear Ms. Kent:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) is investigating the reason(s) that General Motors excluded 1998 through 2004 model year Sonoma and S10 vehicles from Campaign 04V-129.

General Motors' Campaign 04V-129 offers replacement tailgate support cables for certain 2000 - 2004 model year Sierra and Silverado vehicles and for certain 2002 - 2004 model year Chevrolet Avalanche and Cadillac Escalade EXT vehicles. GM has not offered a Campaign remedy or other support for 1998-2004 Sonoma or S10 vehicle models although these vehicles were equipped with tailgate support cables that ODI believes are similar in material and construction as the tailgate support cables installed in the vehicles included in the Campaign.

The Office of Defects Investigation (ODI) has received 36 reports of non-injury incidents and six reports of injury incidents associated with broken tailgate support cable(s) in model year 1996-2002 Sonoma and S10 vehicles. ODI has provided a summary of these complaints as Attachment A. One injury incident complaint, VOQ 10044886, pertains to a 1997 model S10. Five injury incident complaints are alleged to have occurred in 2000-2002 model year vehicles.

ODI has performed a preliminary analysis of the VOQ complaints (see table below) and observes that a higher number of complaints are associated with model year 2000 and 2001 Sonoma and S10 vehicles than have been reported in other model years for these same vehicle models.

Summary of VOQ Complaints for Tailgate Support Cable Breakage in Sonoma and S10 Model Vehicles

Model Year	Number of Non-injury VOQ Complaints	Number of Injury VOQ Complaints	Total Number of VOQ Complaints
1996	1	0	1
1997	1	1	2
1998	3	0	3
1999	3	0	3
[redacted]			
2002	0	1	1
2003	0	0	0
Total	29	6	35

ODI could not assign model years to seven VOQ incidents because the VOQ reports did not identify the vehicle's model year nor provide VIN information.

The purpose of this letter is to request certain information from General Motors about the tailgate support cable(s) installed in model year 1998-2004 Sonoma and S10 model vehicles.

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

- **Subject vehicles**: all 1998 through 2004 model year Sonoma and S10 vehicles equipped with tailgate support cables similar in material and construction to the tailgate cables installed in General Motors model years 2000-2004 Sierra and Silverado vehicles and model years 2002-2004 Avalanche and Cadillac Escalade EXT vehicles that are the subject of General Motors' Campaign 04V-129.

- **Subject component(s)**: tailgate support cable(s).

- **General Motors Corporation ("GM")**: 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 1997, 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**: One or both tailgate support cables breaking.

- **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.

To the extent possible, provide the requested information in Microsoft Access 2000 electronic format, using the same format that GM used in preparing the information requested in PE03-049 (Silverado/Sierra/Escalade/Avalanche tailgate support cables).

Complaint Information for 1998 – 2004 model years Sonoma and S10 vehicles -

1. 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 received by General Motors since January 1, 1998, pertaining to:
   (a) Consumer complaints, including those from fleet operators;
   (b) Field reports, including dealer field reports;
   (c) Reports involving an 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 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; and
(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 "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 are to be counted as 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.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER ONE, RQ04-012 – SONOMA AND S10 COMPLAINT DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

2. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of the response to Request No. 1, state the following information:
(a) GM's file number or other identifier used;
(b) The category of the item, as identified in Request No. 1 (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 property damage is alleged;
(j) Number of alleged injuries, if any; and
(k) Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO, RQ04-012 -- SONOMA AND S10 COMPLAINT DETAILS DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

3. Produce copies of all documents related to each item within the scope of Request No. 1. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method GM used for organizing the documents.

4. 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 "REQUEST NUMBER FOUR, RQ04-012 – SONOMA AND S10 WARRANTY DATA." Please provide the data in the same Access format that GM used to provide information requested in PE03-049.

5. Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 4, 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.

6. 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.

7. 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(s), from the start of production to date, which relate to, or may relate to, the alleged defect in the subject components.

   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 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 production within the next 120 days.

   Provide the table in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER SEVEN, RQ04-012 — SONOMA AND S10 PRODUCT CHANGES."

8. Describe all of the significant differences in the (A) tailgate support cable(s) and (B) the installation, application, function, usage, and/or environment of the tailgate cable support system between the following vehicle configurations:

(a) 1998 through 2004 model year Sonoma and S10 vehicles (i.e., vehicles equipped with similar tailgate support cables as 2000-2004 Sierra and Silverado vehicles but which were not included in Campaign 04V-129) and

(b) Sierra, Silverado, Avalanche, and Escalade EXT vehicles manufactured between October 1999 and October 2003 (i.e., vehicles that are the subject of Campaign 04V-129).

For each of the differences identified, provide GM's assessment of the effects that these differences are expected to have on:
(1) tailgate support cable integrity (e.g. endurance and fatigue properties, environmental resistance properties, in-use reliability, estimates of useful life, etc.);
(2) the consequences of one or both tailgate cables breaking [e.g. the magnitude of the potential door drop (tipping or displacement) and/or other differences in vehicle design characteristics that could mitigate the frequency or severity of injuries]; and
(3) indications or warnings that a product failure (breakage) was imminent.

Where possible, support these assessments with quantified data and provide copies of the supporting documentation.

9. Describe the rationale (list and explain the reasons) that led GM to exclude model year 1998 through 2004 model years Sonoma and S10 vehicles from receiving the equivalent remedy as the vehicles that are the subject of Campaign 04V-129.

10. Furnish General Motors' assessment of the alleged defect in the subject component, including:
(a) The failure mechanism(s);
(b) The failure mode(s),
(c) The risk to motor vehicle safety that posed
(d) 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.

11. 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.

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 **January 15, 2005**. Please refer to **RQ04-012** 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) 366-4933 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 Tom Bowman of my staff at (202) 366-6961.

Sincerely,

Richard P. Boyd

Richard P. Boyd, Chief
Medium & Heavy Duty Vehicle Division
Office of Defects Investigation

Enclosure 1, Attachment A

GM670
RQ04-012

ATTACHMENT "1"

CONFIDENTIAL GM MATERIAL HAS BEEN REMOVED FROM THIS ATTACHMENT AND SUPPLIED TO THE OFFICE OF THE CHIEF COUNSEL