



February 18, 2013

Mr. Frank Borris, Director
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Ave, SE, Room W45-302
Washington, DC 20590

N120335
NVS-212pco
EA12-005

Dear Mr. Borris:

This letter is General Motors' (GM) voluntary response to your Engineering Analysis (EA), received on December 20, 2012, requesting GM peer vehicle data to assist in your investigation of allegations of crash related fire hazards associated with the fuel storage systems on model year (MY) 1993-2004 Jeep Grand Cherokee, MY 1993-2001 Jeep Cherokee, and MY 2002-2007 Jeep Liberty vehicles.

GM understands that there is no alleged defect with respect to any of its vehicles and is providing this information voluntarily as part of the agency's investigation of another manufacturer's vehicles.

The GM peer vehicles for which GM is providing information are MY 1993 - 2007 and MY 2008 - 2009 GM Chevrolet/GMC/Pontiac/Oldsmobile Blazer, S10 Blazer, Jimmy, Trailblazer, Envoy and Bravada SUV vehicles. Suzuki designed and engineered the Tracker. GM will provide available information about the Tracker production and claims (requests 1-4). There were no 2010 MY vehicles built for any GM Peer vehicle models. The Grand Vitara is not a GM vehicle.

By agreement of Mr. Scott Yon, of NHTSA ODI, via email on January 21, 2013, the long-wheel base Trailblazer EXT and Envoy XL are excluded from the list of subject peer vehicles.

Your requests and our corresponding replies are as follows:

1. **State within the body of the response letter a summary table, by make, model and model year, the number of subject peer vehicles GM has manufactured for sale or lease in the United States. Separately, for each model subject peer vehicle manufactured to date by GM, state the following:**
 - a. **Vehicle identification number (VIN);**
 - b. **Model;**
 - c. **Model year;**
 - d. **Date of manufacture (in "dd/mm/yyyy" date format);**
 - e. **Date warranty coverage commenced (in "dd/mm/yyyy" date format);**
 - f. **The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease);**
 - g. **The stowed location (e.g., in the rear cargo area, below the cargo area floor, or mounted on the exterior of the rear door, or other location) of the OE supplied spare tire;**



- h. Whether the vehicle was manufactured with a brush guard, skid guard/plate, or other covering for the underside of the fuel tank (i.e., a protective guard);
- i. Whether the vehicle was manufactured with a tow hitch or tow receiver, and if so the duty/class of the hitch or receiver, and
- j. Whether the vehicle was manufactured with an electrical harness/connector for trailer lighting purposes.

Provide the table in Microsoft Access 2007, or a compatible format, entitled "SUBJECT PEER VEHICLE PRODUCTION DATA."

MAKE	Chevrolet			GMC		Oldsmobile	
MODEL	Blazer	Tracker	Trailblazer	Envoy	Jimmy	Bravada	TOTAL
1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1994	182,319	N/A	N/A	N/A	N/A	N/A	182,319
1995	220,941	51,407	0	0	71,602	0	343,950
1996	254,680	53,940	0	0	82,890	12,525	404,035
1997	205,642	24,074	0	0	72,758	25,894	328,368
1998	241,883	20,992	0	0	79,571	31,503	373,949
1999	198,403	33,302	0	0	63,269	25,780	320,754
2000	249,491	45,064	0	0	87,840	33,152	415,547
2001	163,743	49,843	0	0	46,898	10,932	271,416
2002	103,337	45,800	253,201	108,652	0	28,701	539,691
2003	55,082	41,740	193,927	83,066	0	8,619	382,434
2004	50,848	15,276	209,225	106,950	0	3,475	385,774
2005	5,024	0	184,639	70,106	0	0	259,769
2006	0	0	165,431	62,893	0	0	228,324
2007	0	0	136,219	46,207	0	0	182,426
2008	0	0	108,715	36,400	0	0	145,115
2009	0	0	13,629	6,608	0	0	20,237
2010	0	0	0	0	0	0	0
TOTAL	1,931,393	381,438	1,264,986	520,882	504,828	180,581	4,784,108

TABLE 1-1: GM SUBJECT PEER VEHICLE PRODUCTION - "N/A" INDICATES THAT THE VOLUME IS NOT AVAILABLE

For MY 1997 and later vehicles, General Motors is supplying production information, including vehicle content, from the Global Analysis Reporting Tool database (GART), which contains information for these model years. Consequently, GM is providing the requested production information for MY 1997 – 2009 peer vehicles. For MY 1995 – 1996 peer vehicles, GM is providing the available information from another database that does not contain vehicle content. For MY 1993 – 1994 peer vehicles, information is no longer available. However, since GM was still able to retrieve the number of MY 1994 Chevrolet Blazers at the time of writing the response to PE10031, GM has included that number in this response. The available information regarding the number of peer vehicles produced for sale or lease in the United States for MY 1994 –

2009 is shown in Table 1-1. For MY 1995 – 2004 Chevy Blazers, the quantity of vehicles submitted here differs slightly from the quantity submitted in response to PE1003. This is due to some unverified VIN's which were included previously.

The GM production information requested in 1a – 1f and 1h – 1j is provided on the Att_1_GM disk in the folder labeled "Q_01." Some of the requested information is not available in the GM databases for MY 1993 – 1996 peer vehicles as explained above.

For request 1e and 1f, GM is providing the state where the vehicle was shipped and the warranty start date where available.

For request 1g, it was not possible to clearly indicate for all vehicles where the spare tire was stowed. In general, for vehicles with a fuel tank forward of the rear axle, the spare tire was stowed under the vehicle, between the rear axle and rear bumper. For vehicles with a fuel tank rearward of the rear axle, the spare tire was either stowed inside of the vehicle or on a support behind the rear door of the vehicle.

For request 1h, the production information which is submitted indicates whether an optional fuel tank shield was ordered on the vehicle. Information about standard fuel tank shields is contained in the response to request 5.

For request 1i and 1j, the production information which is submitted indicates whether an optional trailer hitch or trailering harness was ordered on the vehicle. The Z82 trailer package found on the Blazer/Jimmy and on the 1997 – 2001 Bravada is a class 4 trailer package. All Trailblazer, Envoy, and MY 2002 – 2004 Oldsmobile Bravada peer vehicles were built with a hitch receiver that was part of the bumper beam.

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 subject condition in the subject peer vehicles:

- a. Consumer complaints;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, or fire, based on claims against the manufacturer involving a death or injury, and notices received by the manufacturer alleging that a death or injury was caused by a possible defect in a subject peer vehicle;
- 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 "f" 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 including any and all photographic evidence, third-party post-crash/inspection reports, deposition materials, etc. For items "c" through "f" 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, and details of the resolution of the matter.

Include reports in which the subject peer vehicle was struck in the rear by another vehicle, or the subject peer vehicle itself, through its own momentum or movement, struck another vehicle or object, such as a tree, pole, or bridge abutment. As used here, the term rear includes crashes in which the subject peer vehicle is struck by another vehicle, or strikes an object, at an angle that included the rear of the vehicle (i.e., clock points 5, 6, or 7), and is not limited to direct crashes to the rear of the subject peer vehicle. Fire reports where the ignition source was from other than the crash are responsive and are to be included in your response. Reports of fuel leaks or fires where no crash occurred, such as fuel leaks that occur in garages or from punctures from running over objects in the road (but unrelated to a crash), are not within the scope of this request. Also, reports in which the fuel leak or fire originated in the engine compartment area, or where the fire was caused by an electrical issue (e.g., dash wiring or seat heater) or from a non-vehicle related source (e.g., a lit cigarette, or a lit match), as opposed to a crash related fuel leak and fire, are also outside the scope of this request.

Table 2-1 below summarizes records that may relate to the subject condition in the subject peer vehicles. Refer to access database "Q_03_REQUEST NUMBER TWO DATA" for categories prescribed by the NHTSA.

GM notes that the description of a responsive incident has changed since PE10031, and now includes a rear impact with an object other than another vehicle. GM has re-examined the reports which were read in response to PE10031. GM has found no additional responsive reports for the subject peer vehicle population of PE10031 due to this change in the definition of a responsive incident.

Table 2-1 below summarizes records that may relate to the subject condition in the subject peer vehicles, which are in addition to the records which were submitted in response to PE10031.

TYPE OF REPORT	GM REPORTS	SUBCATEGORIES			
		NUMBER WITH PROPERTY DAMAGE	NUMBER WITH CRASH	NUMBER WITH INJURIES/FATALITIES	NUMBER WITH FIRE
Owner Reports	0	0	0	0	0
Field Reports	0	0	0	0	0
Not-In-Suit Claims	0	0	0	0	0
Subrogation Claims	0	0	0	0	0
Third Party Arbitration Proceedings	0	0	0	0	0
Product Liability Lawsuits	1	1	1	1/1	1
Total Reports (Including Duplicates)	1	1	1	1/1	1
Total Vehicles with Reports (Unique VIN)	1	1	1	1/1	1

TABLE 2-1: GM SUBJECT PEER VEHICLE - MAY RELATE TO THE SUBJECT CONDITION

In responding to this information request, GM's investigation of the subject condition has not included an assessment of the cause(s) of each incident responsive to request 2. Some incident reports may not contain sufficient reliable information to accurately assess cause.

Source System	Last Date Gathered
Customer Assistance Center	01/16/2013
Technical Assistance Center	1/15/2013
Field Information Network Database (FIND)	1/14/2013
Field Product Report Database (FPRD)	1/7/2013
Company Vehicle Evaluation Program (CVEP)	1/11/2013
Captured Test Fleet (CTF)	1/11/2013
Early Quality Feedback (EQF)	1/11/2013
Legal/Employee Self Insured Services (ESIS)/Product Liability Claims/Lawsuits	1/5/2013

TABLE 2-2: DATA SOURCES

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
 - a. GM's file number or other identifier used;
 - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
 - c. Cause: 1) Whether the subject condition occurred due to the failure of or damage to a subject component or 2) GM's assessment of the cause of the fire or fuel leak, or 3) whether the subject condition occurred due to an unknown, undetermined, or ambiguous causation.
 - d. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;

- e. Vehicle's VIN;**
- f. Vehicle's model;**
- g. Vehicle's model year;**
- h. Vehicle's mileage at time of incident;**
- i. GM's estimate of the impact speed of the striking vehicle or object that contacted the rear of the subject peer vehicle;**
- j. The basis and/or analysis that substantiates the estimate provided in item i;**
- k. Incident date;**
- l. Report or claim date;**
- m. Whether a fire is alleged;**
- n. Whether property damage is alleged;**
- o. Number of alleged injuries, if any; and p. Number of alleged fatalities, if any.**

Provide this information in Microsoft Access 2007, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

The requested GM information is provided on the Att_1_GM disk in the folder labeled "Q_03"; refer to the Microsoft Access 2007 file labeled "Q_03_REQUEST NUMBER TWO DATA."

In responding to this information request, GM's investigation of the subject condition has not included an assessment of the cause(s) of each incident responsive to request 2, or of the impact speed in the incident. Some incident reports may not contain sufficient reliable information to perform an accurate assessment.

- 4. Produce copies of all documents related to each item within the scope of Request No. 2. The documents requested specifically include, but are not limited to, the following:**
 - a. Any police reports relating to, or that may relate to, the crash, fuel leak or fire;**
 - b. Any and all accident reconstruction reports and documents prepared by or for GM or by or for any other party;**
 - c. Any and all reports and exhibits related to the subject condition prepared by expert witnesses in support of a claim against GM or in anticipation of testimony in any state or federal proceeding in which GM was a party;**
 - d. Transcripts and/or video recordings and exhibits of any and all depositions of persons designated as experts in any state or Federal proceeding related the subject condition in which GM was a party;**
 - e. Transcripts and/or video recordings of any and all depositions of GM employees in any state or Federal proceeding relating to the subject condition in which GM was a party; and**

- f. Any and all documents consulted, created, or relied upon by GM supporting its characterization or conclusions related to the causation of any fuel related leak and/or fire related to the subject condition.**

Copies of the records summarized in Table 2-1 are embedded in the file provided in ATT_1_GM disk; folder labeled "Q_03."

- 5. For each subject peer vehicle model and model year, provide the following:**
 - a. Model, model year, and platform designation;**
 - b. Type of material the fuel tank is composed of (e.g., HDPE plastic);**
 - c. Side, rear, and top view drawings showing the placement of the subject components and related components that secure them in the vehicle;**
 - d. A bottom view drawing or photograph showing the full vehicle undercarriage in the fully built configuration including the locations of the subject components.**
 - e. Overall length of vehicle (in/cm);**
 - f. Wheel base (in/cm);**
 - g. Track width (in/cm);**
 - h. Curb weight (lb/kg);**
 - i. Gross vehicle weight rating (lb/kg);**
 - j. Front gross axle weight rating (lb/kg);**
 - k. Rear gross axle weight rating (lb/kg);**
 - l. Interior volume (passenger and storage area);**
 - m. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the horizontal distance (in/cm) from aft most point of the rear axle to forward most point of the fuel tank;**
 - n. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the horizontal distance (in/cm) from aft most point of the fuel tank to the aft most point of the vehicle's rear bumper;**
 - o. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the vertical distance (in/cm) from bottom/lower most surface of the fuel tank to bottom/lower most surface of vehicle's rear bumper at center line position (positive value indicates the tank surface is above bumper, negative value below the bumper);**
 - p. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the vertical distance (in/cm) from the ground/road surface to the bottom/lower surface of i) the vehicle's rear bumper at center line position, and ii) the vehicle's tow hitch at center line position (when equipped with a tow hitch);**
 - q. If not originally equipped with, whether or not a protective guard for the fuel tank was optionally available, and if so, the part number of the optionally available protective guard; and**

r. Whether the vehicle was equipped with an ORVR/Onboard Refueling Vapor Recovery system.

By approval from Scott Yon, of NHTSA ODI, via email on January 21, 2013, American Suzuki Motor Corporation will answer this question for the Tracker.

For the remaining subject peer vehicles, the requested information is provided in the Att_2_GM_Conf disk in the folder labeled "Q_05."

6. Describe all assessments, analyses, tests, test results, design studies, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the subject condition in the subject peer vehicles, and including all testing to Federal Motor Vehicle Safety Standard (FMVSS) No. 301 or any other contemplated or applicable corporate or internal fuel system integrity standards 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. Results and related documents for FMVSS 301 testing including video and photos;**
- f. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and**
- g. 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.

Provide copies of any and all internal or corporate fuel system integrity standards used by GM in the design and development of the subject vehicles that relate to the subject condition or to fuel system crash integrity in general, including those that exceed the requirements of federal standards or FMVSS 301.

Scott Yon, of NHTSA ODI, agreed to the following amendment to this question, by email on January 21, 2013.

"For the GM peer vehicles, GM will provide the following:

- FMVSS 301 rear and rear angle impact compliance test documentation for the GM peer vehicles.
- Internal GM requirements and test reports for fuel system integrity in rear impact crashes applicable to 2003 and later model year GM peer vehicles.

For the Chevrolet Tracker, American Suzuki Motor Corporation will respond to this question.”

The requested information is provided on the Att_2_GM_Conf disk in the folder labeled “Q_06.”

* * *

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 voluntary response is based on searches of 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 predecessor corporations, and all of its past and present officers and employees, whether assigned to principal offices or any field or other location, including all divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of 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, on or after July 1, 1992, were involved in any way with any of the following related to the subject condition in the subject peer 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 voluntary 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,



M. Carmen Benavides, Director
Product Investigations and Safety Regulations

Attachments