



GENERAL MOTORS LLC
Global Vehicle Safety

June 12, 2017

Mr. Gregory Magno, Chief
Vehicle Defects Division – A
Office of Defects Investigation
National Highway Traffic Safety
Administration
1200 New Jersey Ave., SE, Room W48-334
Washington, DC 20590

G210185

NEF-101
RQ17-002sh

Re: General Motors LLC's Responses to Information Requests 1, 5, 6, 7, 9, 10, 11, 12 and 14 dated May 1, 2017 relating to Recall Query No. 17-002

Dear Mr. Magno:

This letter contains General Motors LLC's ("GM") written responses to requests 1, 5, 6, 7, 9, 10, 11, 12 and 14 in your May 1, 2017 Information Request (the "IR") relating to Recall Query 17-002 (the "RQ"). GM is in the process of gathering information and documents that are responsive to the remaining requests in the IR; as agreed in your email dated June 5, 2017, GM will provide these responses on or before June 30, 2017. Unless otherwise defined below, GM's responses rely on the IR's defined terms.

GM's document production relating to the responses in this letter are contained on the enclosed compact disks titled ATT_1_GM and ATT_2_GM_CONF. Certain portions of these documents are exempt from public disclosure under the Freedom of Information Act (5 U.S.C. §552(b)(4)) ("FOIA"), and have been redacted in the copy contained on the enclosed compact disk. GM has submitted the unredacted nonpublic copy of its document production to the NHTSA Office of Chief Counsel pursuant to the procedures in 49 C.F.R. part 512.

REQUESTS AND RESPONSES

REQUEST 1:

State, by model and model year, the number of subject vehicles GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Subject component part number and design version installed as original equipment;



- f. Whether the vehicle fell within scope of Recall 15V519;
- g. For vehicles remedied by Recall 15V519, provide the remedy date;
- h. Date of manufacture ;
- i. Date warranty coverage commenced; and
- j. 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 2010, or a compatible format, entitled "PRODUCTION DATA."

GM RESPONSE:

GM is providing the number of subject vehicles produced by GM for sale or lease in the United States by make, model and model year in Table 1-1 below:

MAKE	MODEL	MODEL YEAR								TOTAL
		2002	2003	2004	2005	2006	2007	2008	2009	
Buick	LaCrosse	0	0	0	81894	76037	54938	41966	18532	273367
	Rainier	0	0	28969	13648	13776	5401	0	0	61794
Chevrolet	Trailblazer	253303	193988	209423	184676	165472	136240	108729	13629	1265460
	Trailblazer EXT	23906	87049	69250	61288	40144	0	0	0	281637
GMC	Envoy	108663	83070	82854	66556	62894	46216	36401	6610	493264
	Envoy XL	12852	56003	38926	31611	23508	0	0	0	162900
	Envoy XUV	0	0	24103	3553	0	0	0	0	27656
Isuzu	Ascender	0	3476	9121	7219	5433	2812	1063	0	29124
SAAB	9-7x	0	0	0	1999	5425	4621	2215	1770	16030
	TOTAL	398724	423586	462646	452444	392689	250228	190374	40541	2611232

TABLE 1-1: SUBJECT VEHICLES

The production and recall information requested in 1a-1j is provided on the ATT_1_GM disk; folder labeled "Q_01". Refer to the Microsoft Access 2010 file labeled "Q_01_PRODUCTION DATA".

REQUEST 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), street address, email address 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(s);
- h. Problem code(s);
- i. Diagnostic trouble code(s);
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer;
- l. Cause as stated on the repair order;
- m. Correction as stated on the repair order; and
- n. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

GM RESPONSE:

To collect warranty data responsive to this request, GM searched all databases containing warranty claim information which consists of the GM Global Analysis and Reporting Tool ("GART") for data regarding regular warranty claims, and requested information from both the Motorists Insurance Corporation, a subsidiary of Ally Insurance ("MIC"), and the Universal Warranty Corporation, an affiliate of MIC ("UWC"), for data relating to extended service contract claims.

Table 5-1 summarizes the GART, MIC, and UWC claims which may relate to the alleged defect, and was populated using the search method criteria described in GM's response to Request

6.¹ A total of 16,269 claims were categorized as responsive.²

MODEL YEAR	MAKE	MODEL	NUMBER OF CLAIMS			
			REGULAR	MIC	UWC	TOTAL
2002	CHEVROLET	TRAILBLAZER	264	72	4	340
		TRAILBLAZER EXT	42	16	0	58
	GMC	ENVOY	88	22	0	110
		ENVOY XL	12	3	0	15
2003	CHEVROLET	TRAILBLAZER	199	65	2	266
		TRAILBLAZER EXT	105	47	1	153
	GMC	ENVOY	80	19	3	102
		ENVOY XL	40	29	1	70
2004	BUICK	RAINIER	137	93	6	236
	CHEVROLET	TRAILBLAZER	783	333	17	1133
		TRAILBLAZER EXT	308	176	6	490
	GMC	ENVOY	279	157	7	443
		ENVOY XL	160	105	2	267
		ENVOY XUV	67	59	5	131
	ISUZU	ASCENDER	0	0	1	1
2005	BUICK	LACROSSE	232	223	17	472
		RAINIER	37	27	4	68
	CHEVROLET	TRAILBLAZER	352	152	16	520
		TRAILBLAZER EXT	117	77	5	199
	GMC	ENVOY	128	78	6	212
		ENVOY XL	60	47	1	108
		ENVOY XUV	3	10	0	13
	ISUZU	ASCENDER	0	2	0	2
2006	BUICK	LACROSSE	1710	202	16	1928
		RAINIER	456	39	7	502
	CHEVROLET	TRAILBLAZER	1538	447	31	2016
		TRAILBLAZER EXT	185	53	6	244
	GMC	ENVOY	585	249	14	848
		ENVOY XL	153	58	0	211
	SAAB	9-7 X	4	1	0	5
2007	BUICK	LACROSSE	1640	260	18	1918
		RAINIER	76	17	1	94

¹ GART does not contain the vehicle owner's name or telephone number. Additionally, some replacement part numbers, part descriptions and customer concern code descriptions are not included in the GM warranty database.

² GM identified responsive records based on the information supplied to GM by the servicing dealerships, which can contain material errors and omissions. Warranty records, for example, do not always accurately or completely describe the condition of the allegedly defective part at the time of the warranty correction, and service personnel may not consistently classify warranty repairs using the correct labor and trouble codes.

	CHEVROLET	TRAILBLAZER	513	378	27	918
	GMC	ENVOY	175	167	10	352
	ISUZU	ASCENDER	0	1	1	2
	SAAB	9-7 X	1	10	0	11
2008	BUICK	LACROSSE	534	56	2	592
	CHEVROLET	TRAILBLAZER	212	140	7	359
	GMC	ENVOY	88	66	5	159
	SAAB	9-7 X	1	3	0	4
2009	BUICK	LACROSSE	492	26	1	519
	CHEVROLET	TRAILBLAZER	68	41	3	112
	GMC	ENVOY	39	22	2	63
	SAAB	9-7 X	0	3	0	3
		TOTAL	11963	4051	255	16269

TABLE 5-1: REGULAR WARRANTY CLAIMS, MIC EXTENDED SERVICE CONTRACT CLAIMS, AND UWC
EXTENDED SERVICE CONTRACT CLAIMS

Table 5-2 summarizes claims that relate to the subject vehicles as part of recall 15V-519, using the search method criteria described in GM's response to Request 6. As of May 3, 2017, a total of 160,054 vehicles received the remedy authorized by recall 15V519.

MODEL YEAR	MAKE	MODEL	NUMBER OF CLAIMS			
			REGULAR	MIC	UWC	TOTAL
2005	BUICK	LACROSSE	38227	0	0	38227
2006	BUICK	LACROSSE	19255	0	0	19255
		RAINIER	3498	0	0	3498
	CHEVROLET	TRAILBLAZER	20304	0	0	20304
		TRAILBLAZER EXT	3244	0	0	3244
	GMC	ENVOY	10406	0	0	10406
		ENVOY XL	2655	0	0	2655
2007	BUICK	LACROSSE	31331	0	0	31331
		RAINIER	2882	0	0	2882
	CHEVROLET	TRAILBLAZER	10	0	0	10
	GMC	ENVOY	16	0	0	16
2008	BUICK	LACROSSE	15053	0	0	15053
2009	BUICK	LACROSSE	13173	0	0	13173
		TOTAL	160054	0	0	160054

TABLE 5-2: WARRANTY CLAIMS RELATED TO RECALL 15V519

GM has organized the records that are responsive to this request by the GM file number within each attachment. Refer to Microsoft Access 2010 database "Q_05_WARRANTY_DATA" included on the ATT_1_GM disk. In response to subparts 5k and 5n, GM has included in these records all available dealer-provided "verbatim text" in the GART database relating to the

responsive claims that are currently in GM's possession.³

REQUEST 6:

Describe in detail the search methods and search criteria used by GM to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble 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, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

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.

GM RESPONSE:

To populate Table 5-1, GM searched the GART regular warranty database and the MIC and UWC extended service contract claims databases for the labor codes that GM identified as potentially related to the alleged defect. These labor codes are summarized in Table 6-1. Each warranty record may have up to five verbatim fields. All verbatim claim fields were read and a claim was determined to be responsive if the verbatim indicated that the incident may have been caused by the subject component. The records that contain all blank verbatim fields were counted as responsive.

<u>Labor Code</u>	<u>Labor Code Description</u>
N2833	Exterior Lighting Relay Replacement
N1730	Engine Wiring Harness Junction Block Replacement
5430170	Engine Wiring Harness Junction Block Replacement

TABLE 6-1: LABOR CODES USED IN REGULAR WARRANTY AND MIC/UWC SEARCH

To populate Table 5-2, GM searched the GART regular warranty database using the labor codes related to recall 15V519. These labor codes are summarized in Table 6-2. GM coded all claims associated with these labor codes as responsive.

<u>Labor Code</u>	<u>Labor Code Description</u>
9101122	Install Headlight Driver Module (HDM)

³ The verbatim text is provided to GM by the dealer that serviced the warranty claim, and reflects both dealer- and customer-provided comments relating to the claim. Before the 2010 model year, GM did not require the dealer to populate this field in the warranty system; for this reason, GM may not be in possession of this information for every responsive warranty claim.

9101195	Customer Reimbursement Approved
9101196	Customer Reimbursement Denied – For USA Dealers Only

TABLE 6-2: LABOR CODES RELATED TO RECALL 15V-519

Table 6-3 summarizes the terms of new vehicle warranty coverage offered by GM on the subject vehicles:

<u>Model Year</u>	<u>Make</u>	<u>Warranty Type</u>	<u>Warranty Terms</u>
2002-2005	Buick	Limited Bumper-To-Bumper	3 year / 36,000 mile
2006-2009	Buick	Limited Bumper-To-Bumper	4 year / 50,000 mile
2002-2009	Chevrolet	Limited Bumper-To-Bumper	3 year / 36,000 mile
2002-2009	GMC	Limited Bumper-To-Bumper	3 year / 36,000 mile
2003-2008	Isuzu	Limited Bumper-To-Bumper	3 year / 50,000 mile
2005-2009	Saab	Limited Bumper-To-Bumper	4 year / 50,000 mile

TABLE 6-3: NEW VEHICLE WARRANTY COVERAGE OFFERED BY GM ON SUBJECT VEHICLES

Many different optional extended warranty plans were available for the subject vehicles through GM dealerships. These plans were offered at different prices and for varying lengths of time, based on a customer's preference, up to seven years from the date of purchase, or up to a total of 100,000 vehicle miles. The numbers of extended service contracts on the subject vehicles that have been sold by MIC and UWC as of May 17, 2017 regardless of status (in-force, expired, or cancelled) are contained in Table 6-4

MAKE	MODEL	MODEL YEAR																TOTAL	
		2002		2003		2004		2005		2006		2007		2008		2009			
POLICY DESCRIPTION		MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC	MIC	UWC
BUICK	LACROSSE	0	0	0	0	0	0	12044	1180	8577	944	6187	601	5442	457	2445	187	34695	3369
	RANIER	0	0	0	0	2531	643	2080	308	1652	323	720	95	0	0	0	0	6983	1369
CHEVROLE	TRAILBLA	915	3384	2742	3685	10764	3994	20512	4014	26671	3733	25806	2247	19434	1728	2680	219	109524	23004
GMC	ENVOY	540	1642	1492	1956	5133	2244	9046	1955	11906	1988	9600	895	7693	655	1350	107	46760	11442
ISUZU	ASCENDER	0	0	8	22	66	56	88	36	101	35	55	16	24	10	0	0	342	175
SAAB	97-X	0	0	0	0	0	0	79	0	389	0	401	0	409	0	133	0	1411	0
TOTAL		1455	5026	4242	5663	18494	6937	43849	7493	49296	7023	42769	3854	33002	2850	6608	513	199715	39359

TABLE 6-4: SUBJECT VEHICLES: MIC AND UWC EXTENDED SERVICE COVERAGE CONTRACTS SOLD (REGARDLESS OF STATUS: IN-FORCE, EXPIRED OR CANCELLED)

REQUEST 7:

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that GM is planning to issue within the next 120 days.

GM RESPONSE:

All service, warranty, and other documents that may relate to the subject condition and have been issued to dealers, regional or zone offices, fleet purchasers or other entities are included in ATT_1_GM disk; folder labeled "Q_07". This information was collected from GM Service Operations and completed on May 11, 2017.

REQUEST 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 and related systems, 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 number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

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

GM RESPONSE:

A search of GM's Engineering Work Order (EWO) system performed on June 1, 2017 returned zero results for modifications or changes made to the subject component by GM. GM is providing the part drawing of the subject component in the ATT_2_GM_Conf disk; folder labeled "Q_09". The part drawing includes a revision history which denotes changes made to the drawing which do not affect the design, material composition, manufacture, quality control, supply, or installation of the subject component and related systems.

GM's internal investigation N-140291 discovered records of engineering and manufacturing changes made to the subject component by Delphi. A summary of these engineering and manufacturing changes is provided in the ATT_2_GM_Conf disk; folder labeled "Q_09"

REQUEST 10:

Produce two of each of the following:

- a. Exemplar samples of each design version of the subject component;
- b. Field return samples of the subject component exhibiting the subject failure mode; and
- c. Any subject components 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.

GM RESPONSE:

GM is providing two new samples of GM part number 15016745, which is the production and service version of the subject component, along with two new samples of 13506836, which is the recall remedy version of the subject component used in NHTSA Recall 15V-519.

Field return samples of the subject component exhibiting the failure mode were not available at the time of this submission. For this reason, GM will provide NHTSA with two field return samples of part number 15016745 which do not exhibit the failure mode. Warranty return parts are continuing to be collected and, if returned parts exhibit the failure mode, GM will supplement its response to this request.

REQUEST 11:

Provide an application chart that identifies by model, model year, and any relevant distinguishing characteristics, the vehicle models manufactured by GM that use the subject component in their headlamp system in a manner similar to its use in the subject vehicles .

GM RESPONSE:

The requested information is provided on the ATT_1_GM disk; folder labeled "Q_11".

REQUEST 12:

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 subject components 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.

GM RESPONSE:

The requested sales information for the subject component in both the production and service version (part number 15016745) and remedy version (part number 13506836) is provided on the ATT_1_GM disk; folder labeled "Q_12". The file summarizes the sales volume by make, model, model year, and month of sale, for all GM vehicles including the subject vehicles, and non-GM vehicles. The file also provides all available detailed sales information of the production, service, and remedy versions of the subject component, including its use in production or service and supplier's name, address, and point of contact. 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.

REQUEST 14:

Describe how the subsystem connected to the subject component operates, and include: Any diagram(s) or schematic(s) necessary.

GM RESPONSE:

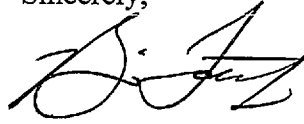
The vehicle's body control module, or BCM, monitors the voltage level in the head lamp on/off switch. When the switch is in the "OFF" position, the BCM turns the headlamps and parking lamps off. When the switch is in the "Auto" position, the BCM will automatically turn on either the vehicle's daytime running lamps or the headlamps, depending upon the amount of light detected by the vehicle's ambient light sensor. The vehicle's low-beam headlamps function in two different intensities: (i) a lower intensity for normal daytime use; and (ii) a higher intensity for low light/nighttime use. The BCM applies two different pulse width modulated (PWM) grounds to the HDM Beam Module control circuit.

A diagram showing how the subject component operates within the subsystem is provided on the ATT_2_GM_CONF disk; folder labeled "Q_14".

CONCLUSION

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

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Latouf', written in a cursive style.

Brian Latouf, Executive Director
Global Safety and Field Investigations

cc: Mr. Greg Magno
Mr. Sean Hays

Attachments

ATT_1_GM: Production Data; Warranty Data; Bulletins; Application Chart; Part Sales

ATT_2_GM_CONF: EWO Data; Component and Subsystem Diagram