



November 15, 2021

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VIA EMAIL

G231651

NEF-101sly

EA20-002

Subject: General Motors LLC’s Responses to NHTSA’s September 16, 2021 Information Request in Investigation EA20-002

Dear Ms. Topka:

This letter contains General Motors LLC’s (“GM”) responses (the “**Responses**”) to the information requests in your September 16, 2021 letter (the “**Requests**”) relating to National Highway Traffic Safety Administration (“NHTSA”) Engineering Analysis 20-002, which is a NHTSA investigation of “allegations of seat belt pretensioner cable failures in certain model year (MY) 2009-2010 Saturn Outlook, 2009-2014 Buick Enclave, GMC Acadia and Chevrolet Traverse (Lambda Platform) vehicles.” Unless otherwise defined herein, GM’s Responses rely on the defined terms in the Requests.

PRELIMINARY STATEMENT

Since 2014, GM has been monitoring, investigating, and, where justified by engineering analysis and field data, conducting voluntary safety recalls on the Subject Components (as defined in the Requests, the “**Subject Components**”) in the Subject Vehicles¹ (as defined in the Requests, the “**Subject Vehicles**”) and Peer Vehicles.² GM’s position on the Subject Components remains unchanged from its August 2019 written responses to NHTSA’s information request in RQ19-003: (a) GM’s current recall population, which consists of all of the Subject Vehicles and certain

¹ The Subject Vehicles are limited to those vehicles falling within the scope of Recall 14V-266, as defined in RQ19-003.

² In preparing these Responses, and as GM discussed with NHTSA during the September 2021 quarterly meeting, GM used the following definition of “Peer Vehicles”: “All vehicles manufactured by GM from MY 2009 to 2016 equipped with a flexible steel cable that connects the safety belt to the vehicle at the outside of the front outboard seating position” (the “**Peer Vehicles**”). This definition is modeled on NHTSA’s prior definition of “Peer Vehicles” in RQ19-003 and incorporates the model years listed in EA20-002’s opening resume (“Selected MY 2009-2016 GM models.”).

discrete populations of Peer Vehicles (collectively, the “**Recalled Vehicles**”),³ is properly scoped and (b) the remedy in these recall campaigns is effective.

In the non-recalled GM vehicles that utilize the Subject Components (the “**Nonrecalled Vehicles**”), GM believes that the body of engineering analysis and field data gathered to date supports the conclusion that failure mode at issue—pretensioner cable separation (the “**Alleged Defect**”)—is being caused by unforeseeable misuse of the vehicle’s seat-belt system: an occupant unusually and uncomfortably (or even painfully) sitting on the Subject Component’s steel cable during thousands and perhaps tens of thousands of vehicle entries, and then ignoring the resulting exterior warning signs of damage on the cable until the cable fails.

This damage is readily detectable—not just on the Subject Component but also often on the vehicle’s seat, seat back, and other nearby vehicle components:



2014 Chevrolet Silverado VIN EZ [REDACTED]



2010 Chevrolet Traverse VIN AS [REDACTED]

GM’s position is supported by the new field data and engineering analysis that GM has accumulated since submitting its August 2019 responses:

- **Cable separations are very rare events.** Field failures of the Subject Component either post-recall or in the Nonrecalled Population remain extremely rare. The post-recall rate for the Subject and Recalled Peer Vehicles (2,421,735 vehicles that received the recall repair) is extremely low at 0.34 RPTV @ 87 MIS.⁴ The highest claim rate among the Nonrecalled Peer Vehicles is also extremely low: 0.38 RPTV at 78 MIS.⁵ These vehicles have a combined average of nine years of field

³ NHTSA recall 14V-266 covers the Subject Component in the Subject Vehicles. NHTSA recalls 15V-269, 15V-399, 16V-209, 16V-518, 18V-291, 20V-638, and 21V-245 (together with 14V-266, the “**Recalls**”) cover the Subject Components in certain of the Peer Vehicles. The Recalls are summarized in the response to Requests 9 and 12.

⁴ Vehicles included in Recalls 15V399 and 18V291 had no relevant claims relating to the Subject Component, in either field or warranty data, after the recall repair. As discussed below, GM omitted separation claims involving Recalled Vehicles that had not received the recall remedy as of the date of the alleged incident.

⁵ This is the rate for the 2015-2016 model year Chevrolet Silverado and GMC Sierra vehicles.

exposure.

- **Cable damage is detectable and prompting replacements.** Conversely, GM's warranty rate for inspections and proactive cable replacements is much higher—14,408 claims out of over four million vehicles. This is strong evidence that GM's inspection procedures are working—that customers and dealers are detecting the warning signs of potential cable damage and proactively replacing the Subject Component well before the cable weakens or separates.
- **Parts with no exterior damage are internally sound.** Parts that do not have exterior damage are virtually pristine internally, even after significant field exposure. GM's CT scanning testing on field-aged parts that did not have holes or cuts in the outer sleeve or covering demonstrated that these cables are intact and undamaged; out of over 400 parts tested, only two had any visible interior strand damage, and the damage in both cases was minor (one broken strand and one partially damaged strand). When GM conducted strength testing on more heavily damaged cables, the results of which GM reviewed with NHTSA in July 2020, these cables passed GM's internal tensile-strength requirements with significant safety margin.
- **Cable separation does not occur in crashes.** In the very rare case that a separation occurs in the field, it is occurring during normal driving, typically at start up. As discussed in more detail below, the VOQs that NHTSA cited in its Opening Resume provide additional support for this conclusion; every potentially relevant VOQ includes language indicating that the separation event occurred while the vehicle was stationary and the belt was being buckled. Out of a population of over 13 million vehicles with an average of nine years in the field (the oldest vehicles have 13 years in the field), GM is aware of only one confirmed case of cable separation that alleged an injury that is not, on its face, implausible or not credible. This is the same injury allegation discussed in GM's August 2019 responses in RQ19-003.

GM prepared its Responses by: (i) identifying, in consultation with the appropriate GM business personnel, the primary electronic databases and document repositories in GM's custody and control that store potentially responsive documents and information in the ordinary course of business, as more fully identified in the Responses below; and (ii) conducting a reasonable search, as appropriate, of these databases and document repositories for responsive documents and information. GM objects to the definitions of "document" and "GM" in the Requests as overbroad, unreasonably burdensome, and not reasonably tailored to records that might be expected to bear relevant and responsive information. GM's document production does not contain: (i) attorney-client privileged information or information protected as attorney-work product; and (ii) documents generated or archived in these locations after the dates that GM conducted its final searches. GM construes the Requests as pertaining to vehicles manufactured for sale in the United States and its territories.

GM's document production is contained in the folder titled G231651_1_GM. 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 49 CFR part 512, and have been redacted in the copy contained in the folder. GM has submitted the unredacted nonpublic copy of its document production (in the folder titled G231651_2_GM_CONF) to the NHTSA Office of Chief Counsel under 49 C.F.R. part 512. GM recently concluded an investigation that is responsive to Request 8. GM will promptly supplement these responses with the documents that relate to this investigation.

Some of the documents in GM’s production contain personally identifiable information (“**PII**”) (e.g., vehicle registration information or VIN, employee names, and customer/employee contact information). GM today submits documents with unredacted PII with the understanding that NHTSA (or GM, if NHTSA prefers) will redact any PII before disclosing these documents to the public.

REQUESTS AND RESPONSES

REQUEST 1:

State, by model and model year, the number of Peer Vehicles GM has manufactured for sale or lease in the United States. Separately, for each Peer 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(s) and design version(s) installed as original equipment;
- f. Date of manufacture;
- g. Date warranty coverage commenced; and
- h. 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:

In response to your request that GM “[s]tate, by model and model year, the number of Peer Vehicles GM has manufactured for sale or lease in the United States,” GM provides Table 1-2 attached as **Exhibit A**. The Peer Vehicle population is 11,846,989 vehicles.

GM has produced the information requested in subparts (a) through (h) for the Peer Vehicles in the G231651_1_GM folder in the subfolder labeled “Q_01”. Refer to the Microsoft Access 2010 files⁶ labeled “Q_01_PRODUCTION DATA_Peer1” and “Q_01_PRODUCTION DATA_Peer2.” GM does not possess VIN-level part-traceability records for the Subject Component and therefore cannot respond to subpart (e).⁷

The production data for the Subject Vehicles was provided in GM’s August 12, 2019 response to RQ19-003. The summary table is reproduced in Table 1-1 for your reference.

MAKE	MODEL	MODEL YEAR						TOTAL
		2009	2010	2011	2012	2013	2014	
Buick	Enclave	46,337	56,770	87,546	102,996	53,598	86,964	434,211
Chevrolet	Traverse	38,096	48,103	69,873	70,060	38,533	64,032	328,697
GMC	Acadia	74,595	82,724	128,832	117,486	62,896	97,696	564,229
Saturn	Outlook	14,920	3,636					18,556
TOTAL		173,948	191,233	286,251	290,542	155,027	248,692	1,345,693

TABLE 1-1: SUBJECT VEHICLES

REQUEST 2:

State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the Subject and Peer Vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury or fatality;
- d. Property damage claims;

⁶ This data had to be split into two databases due to file size limitations.

⁷ GM did not start using 2D barcode labels until the 2014 model year. These records are stored by the seat supplier during assembly of the Subject Component to the seat and are not within GM’s possession, custody, or control.

- 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. For items “e” and “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.

GM RESPONSE:

A. Explanatory Note

For its response to subparts (a) through (f) in Request 2, GM conducted (a) a reasonable keyword search for potentially responsive claims in several databases⁸ and (b) an analysis of the 24 VOQs listed in the opening resume for EA20-002. GM’s responses are contained in the tables below (Subject Vehicles), the attached **Exhibit B** (Peer Vehicles), and a separate narrative section analyzing the VOQs.

In determining the responsiveness of a claim or report, GM erred on the side of coding the claim as responsive, even if the evidence in GM’s possession linking the claim to the Alleged Defect was implausible, inconclusive, or circumstantial. Accordingly, the claim totals in GM’s response are conservative and not all of these claims identified are in fact related to or potentially related to the Alleged Defect.

As explained below, GM used a different coding methodology to prepare its responses to this Request compared to how GM coded claims for its August 12, 2019 response to Request 3 in RQ19-003. GM’s understanding is that the nature and objective of NHTSA’s ongoing investigation into the Recalled Vehicles relates solely to the effectiveness of GM’s recall remedy (“ODI opened RQ19-003 to assess the effectiveness of the actions GM took in Recall 14V266”). For this reason, in evaluating the effectiveness of the remedy on the Recalled Vehicles, GM has omitted claims from its field-claim tables that relate to a Recalled Vehicle VIN that, according to

⁸ These databases include: Customer Assistance Center (CAC), Product Assistance Center (PAC), Business Resource Center (BRC), Technical Assistance Center (TAC), Field Information Network Database (FIND), Company Vehicle Evaluation Program (CVEP), Captured Testing Fleet (CTF), COMPASS, Early Quality Feedback (EQF), Problem Resolution Tracking System (PRTS), Field Product Report Database (FPRD), Global Incident Management System (GIMS), and GM Legal records.

GM’s records, had not received the applicable Recall remedy as of (a) the date GM conducted its field-claim searches or (b) when the field claim was submitted to GM. GM believes that this coding method produces field-data charts that more accurately measure the effectiveness of GM’s remedy in the Recalls.

B. Subject Vehicle Field Data

As summarized in Table 2-1, GM is currently aware of 61 unique claims (RQ19-003 data and new EA20-002 data) involving the Subject Vehicles that may potentially be responsive to Request 2. These claims are generally arising at startup when the occupant attempts to buckle the seat belt.

TYPE OF REPORT	SUBCATEGORIES					
	GM REPORTS	CORRESPONDING TO NHTSA REPORTS (VOQ)	NUMBER WITH PROPERTY DAMAGE	NUMBER WITH CRASH	NUMBER WITH FIRE	NUMBER WITH INJURIES/FATALITIES
Owner Reports	65	2	0	0	0	1/0
Field Reports	0	0	0	0	0	0/0
Not-In-Suit Claims	1	0	0	0	0	1/0
Third Party Arbitration Proceedings	0	0	0	0	0	0/0
Product Liability Lawsuits	0	0	0	0	0	0/0
Total Reports (Including Duplicates)	66	2	0	0	0	2/0
Total Vehicles with Reports (Unique VIN)	61	2 ⁹	0	0	0	1/0 ¹⁰

TABLE 2-1: SUMMARY OF ALL CLAIMS RESPONSIVE TO REQUEST 2A-2F FOR THE SUBJECT VEHICLES (RQ19-003 AND EA20-002 DATA COMBINED)

Table 2-2 below provides only the new responsive claims since GM’s response in RQ19-003. In the two-year period since it submitted its responses, GM has received 18 new potentially responsive claims—out of a population of 1,281,371 Subject Vehicles that received the recall remedy—involving the Subject Components. None of these new claims include an allegation that the Alleged Defect caused or contributed to a crash, injury, or fatality.

⁹ VOQ 11113486 and 11076704 match complaints previously reported in RQ19-003.

¹⁰ GM reported and discussed two alleged responsive injury allegations in its response to RQ19-003. In one of these claims, GM’s records indicate that the recall was open at the time of the alleged incident. For this reason, GM’s Table 2-1 lists only one legacy responsive injury claim. See GM’s August 12, 2019 response for a discussion of this claim.

<i>Type of Report</i>	<i>Subcategories</i>					
	<i>GM Reports</i>	<i>Corresponding to NHTSA Reports (VOQ)</i>	<i>Number with Property Damage</i>	<i>Number with Crash</i>	<i>Number with Fire</i>	<i>Number with Injuries/Fatalities</i>
<i>Owner Reports</i>	18	0	0	0	0	0/0
<i>Field Reports</i>	0	0	0	0	0	0/0
<i>Not-In-Suit Claims</i>	0	0	0	0	0	0/0
<i>Third Party Arbitration Proceedings</i>	0	0	0	0	0	0/0
<i>Product Liability Lawsuits</i>	0	0	0	0	0	0/0
<i>Total Reports (Including Duplicates)</i>	18	0	0	0	0	0/0
<i>Total Vehicles with Reports (Unique VIN)</i>	18	0	0	0	0	0/0

TABLE 2-2: SUMMARY OF NEW CLAIMS RESPONSIVE TO REQUEST 2A-2F FOR THE SUBJECT VEHICLES

C. Peer Vehicle Field Data

As summarized in Exhibit B, GM is aware of 138 new unique potentially responsive claims—out of a population of almost 12 million Peer Vehicles—since GM submitted its responses in RQ19-003 and an overall total of 237 potentially responsive claims. As with the Subject Vehicle claims, these claims are generally arising at vehicle startup.

These claims include one new allegedly responsive crash and two new allegedly responsive injuries in the Peer Vehicles described below. These claims are technically responsive to this Request and are being included to be fully transparent with the agency; GM’s position, however, is that these claims are not credible (because of, e.g., inconsistencies in the claimant’s statements to GM and/or GM dealer personnel) and/or are not conclusively attributable to the Alleged Defect. Additional information about the claims is available in the document production that GM is providing in response to Request 4, and GM’s assessment of the Alleged Defect is provided in its Response to Request 12.

1. 2014 Chevrolet Silverado – VIN 3GCUKSEC4EG [REDACTED]

The claimant initially called GM’s CAC on July 9, 2019, claiming that the Subject Component broke while he was operating the vehicle. He also claimed that his dealer refused to cover the cost of the repair; the dealer denied this allegation, and informed GM that their records indicated that the claimant had not been to the dealership in almost three years. The same day, GM’s warranty records indicate that this dealer replaced this claimant’s Subject Component free of charge under GM’s special coverage program covering the Subject Component in this vehicle.

Three days later, the claimant called CAC again with a new claim: that the Subject Component failed during a single-vehicle crash event with an animal on July 6, 2019. He claimed an injury to his ears and his hearing but failed to respond to GM’s request for supporting medical documentation. GM later closed the case and the claimant has not followed up with GM. There

is no indication that the claimant mentioned the crash to the dealer; the causal verbatim in the warranty claim states “dr side seat belt cable broken.” There is no mention of a crash or injury in either the dealer repair order or the warranty claim.

In addition to the lack of consistency and credibility between what the claimant reported to the dealer, what the claimant later reported to GM, and the details contained in various records, the vehicle has an extensive crash history makes it impossible to determine whether a GM-approved Subject Component (and not an unapproved part or a damaged salvage component) was installed in the vehicle at the time of this alleged crash. The Carfax report for the vehicle indicates that the vehicle was involved in at least four reported crash events and four reported damage events before the alleged crash on July 6, 2019, which—notably—is not listed on the report. Please refer to the documents in SR [REDACTED] and NISM file 923468.

2. 2015 Chevrolet Silverado – VIN 1GCVKPECXFZ [REDACTED]

The claimant called CAC alleging that, on February 5, 2020, the front-passenger Subject Component in the vehicle broke during a braking event, which caused the passenger to hit his face on the dash. The claimant stated that the passenger did not seek medical attention. GM’s dealer records indicate that it was the “seat belt” and not the Subject Component at issue: “PASS SEATBELT IS BROKEN. CUSTOMER WOULD LIKE A QUOTE ON REPAIR[SIC].” The records do not contain a part number, and the customer declined the repair.

GM asked the claimant to provide photos of the cable and the vehicle; the claimant declined, and GM closed the case. There has been no additional contact from the claimant. Based on these facts, GM cannot definitively determine whether this claim is attributable to the Alleged Defect. Please refer to the documents associated with SR [REDACTED].

D. VOQ Analysis

GM’s analysis of the 24 VOQs listed in the Requests is contained in the EA20-002 VOQ analysis spreadsheet in the G231651_1_GM folder in the Q_02 subfolder. GM determined that 12 of the VOQs were not relevant because the vehicle is a Recalled Vehicle and the complaint appears to have arisen prior to the completion of the applicable Recall repair. An additional two of the claims were found not relevant to the Alleged Defect.

Notably, none of these VOQs alleged that the Subject Component separated during a crash or caused an injury, and the VOQs are generally consistent with GM’s position that, when a rare cable separation occurs, it occurs at vehicle ignition when the driver is buckling the seat belt:

- “WHEN I GOT INTO MY 2014 CHEVROLET SS AND THE SEATBELT DETACHED FROM ITS ANCHOR POINT IN MY HAND”
- “THE VEHICLE WAS STATIONARY IN A PARKING LOT”
- “THE VEHICLE WAS AT A STANDSTILL”
- “VEHICLE WAS PARKED”

- “WHILE THE CONTACT WAS ATTEMPTING TO FASTEN THE FRONT DRIVER’S SIDE SEAT BELT”
- “CAME APART WHEN TRYING TO USE”
- “THE VEHICLE WAS STATIONARY WHEN IT CAME COMPLETELY APART”
- “WHILE MY WIFE WAS FASTENING IT”
- “THE VEHICLE WAS STATIONARY”
- “THIS FAILURE HAPPENED WHEN I WAS PARKED, AT HOME AND JUST ATTACHING THE SEAT BELT”
- “WHILE THE CONTACT WAS FASTENING THE SEAT BELT”
- “WHEN THE CONTACT SAT BEHIND THE WHEEL, HE PULLED THE SEAT BELT TO RESTRAIN HIMSELF AND THE TENSIONER CABLE FRACTURED”
- WHILE THE VEHICLE WAS PARKED”

REQUEST 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 for both Subject and Peer Vehicles:

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

- j. Whether property damage is alleged;
- k. Number of alleged injuries, if any; and
- l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled “REQUEST NUMBER TWO DATA.”

GM RESPONSE:

GM has produced the requested information for the Subject and Peer Vehicles in the G231651_1_GM folder in the subfolder labeled “Q_03”. This only includes the new records received since RQ19-003. Refer to the Microsoft Access 2010 files labeled “Q_03_REQUEST NUMBER TWO DATA_Subject” and “Q_03_REQUEST NUMBER TWO DATA_Peer.”

REQUEST 4

Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method GM used for organizing the documents. Describe in detail the search methods and search criteria used by GM to identify the items in response to Request No. 2.

GM RESPONSE:

With respect to Request 4, GM CAC, PAC, TAC and Legal records are GM’s primary repositories of potentially responsive documents in the ordinary course of business. GM identified responsive documents by conducting a keyword search of these records for potentially responsive claims and reviewed the associated claim file to confirm the responsiveness of the claim. GM is producing the responsive, nonprivileged documents associated with responsive claims listed in Table 2-1 and Exhibit B in the G231651_1_GM folder in “Q_03,” “Q_03_ATT” subfolders. GM has organized the records by the GM file number.

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

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 and Peer 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. Recall repair (Y or N);
- h. Recall number associated with repair
- i. Other type of field action (Y or N)
- j. Field action type;
- k. Field action number;
- l. Replacement part number(s) and description(s);
- m. Concern stated by customer;
- n. Cause as stated on the repair order;
- o. Correction as stated on the repair order; and
- p. 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 conducted a reasonable keyword search of the GM Global Analysis and Reporting Tool ("GART"), GM's primary repository of potentially responsive warranty claim information in the ordinary course of business.

The claim totals in GM's response are conservative and likely inflate the occurrence of the Alleged Defect to an unknown degree. First, in determining the responsiveness of a claim, GM erred on the side of coding the claim as responsive, even if the evidence in GM's possession linking the claim to the Alleged Defect was implausible, inconclusive, or circumstantial. Second, the language used by GM dealership technicians in entering data into GM's warranty system is often colloquial—e.g., "cable broken"—and may not appropriately differentiate between a cable that

merely has a cut/torn sleeve and a cable that is fully separated when presented to the dealer. If GM could not determine the nature/extent of the damage, GM erred on the side of coding the claim as an Alleged Defect.

As it did in preparing its response to Request 2, GM omitted claims associated with vehicles that were subject to an open Recall at the time of the claim. Subject Vehicles are limited to those vehicles falling within the scope of Recall 14V-266. Therefore, any warranty records for a vehicle with an open recall for 14V-266 or where the recall was open at the time of the claim were not included as a relevant claim.¹¹ For the Peer Vehicles, any warranty records related to a vehicle that has an open recall for 15V-269, 15V-399, 16V-209, 16V-518, 18V-291, 20V638, and 21V-245 or where the recall was open at the time of the claim were not included as a relevant claim.¹² These recalls are summarized in the response to Requests 9 and 12.

Table 5-1, below, summarizes the warranty claims for the Subject Vehicles that may relate to the Alleged Defect.¹³ There are a total of 61 new warranty claims (10 of which were included as a relevant claim in Request 2) categorized as responsive since RQ19-003.¹⁴

MAKE	MODEL	MODEL YEAR						TOTAL
		2009	2010	2011	2012	2013	2014	
Buick	Enclave	0	0	2	0	0	0	2
Chevrolet	Traverse	1	1	10	12	9	12	45
GMC	Acadia	1	0	3	2	3	4	13
Saturn	Outlook	1	0	0	0	0	0	1
TOTAL		3	1	15	14	12	16	61

TABLE 5-1: SUMMARY OF NEW SUBJECT VEHICLE WARRANTY CLAIMS SINCE RQ19-003

GM provides the datasheet attached as Exhibit B for the Peer Vehicles.

Table 5-2 summarizes the incidents-per-thousand-vehicles rate (“IPTV”) for the Subject Vehicles and the Recalled Peer Vehicles at the number of Months in Service (“MIS”) since the

¹¹ There were 44 unique warranty claims for the Subject Vehicles that occurred before Recall 14V-266 was released and/or completed reported in RQ19-003 that were not included in the IPTV calculations.

¹² Exhibit B in RQ19-003 included investigations for the Peer Vehicles that resulted in Recalls 15V-269, 15V-399, 16V-209, 16V-518 and 18V-291. These investigations are not included in Exhibit B here.

¹³ 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. In response to subpart (j), the diagnostic trouble code (DTC) is not captured separately and, if available, is included in one of the verbatim fields.

¹⁴ 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.

recall repair has been completed.¹⁵ All rates are extremely low, both in absolute terms and in comparison to GM’s standard warranty rates for safety-related vehicle systems:¹⁶

Vehicles	IPTV¹⁷	MIS
2009-2014 Subject Vehicles (Recall 14V266)	0.11	87
2014-2016 Chevrolet Caprice/SS (Recall 16V518)	0.14	59
2011-2012 Chevrolet Malibu (Recall 15V269)	0.35	70
2014-2015 Chevrolet Silverado and GMC Sierra LD (Recall 16V209)	0.56	62

TABLE 5-2: SUBJECT VEHICLE AND CERTAIN PEER VEHICLE WARRANTY CLAIM RATE AFTER RECALL

Table 5-3, below, summarizes the IPTV for certain Peer Vehicles under Special Coverage:

Vehicles	IPTV¹⁸	MIS
2015-2016 Chevrolet Silverado and GMC Sierra LD (outside recall 16V209)	0.37	78
2014-2016 Chevrolet Impala E	0.30	99
2016 Chevrolet Camaro	0.14	70

TABLE 5-3: WARRANTY CLAIM RATE FOR PEER VEHICLES (WITHOUT RECALL) UNDER A SPECIAL COVERAGE

GM has produced the requested information in subparts (a) through (p) in the G231651_1_GM folder in the subfolder labeled “Q_05”. Refer to the Microsoft Access 2010 files labeled “Q_05_WARRANTY_DATA_Subject_Vehicles,” “Q_05_WARRANTY_DATA_Peer_Recall_Vehicles” and “Q_05_WARRANTY_DATA_Peer_Non-Recall_Vehicles” In response to subparts “m” through “p,” 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.¹⁹

With respect to subparts “g” and “h,” this information is only included for vehicles which are subject to a recall, therefore the database with the Peer Non-Recall Vehicles does not have this information. With respect to subparts “i” through “k” this information is not called out separately

¹⁵ Recall 15V-399 is not included in the table because GM’s searches identified no responsive claims associated with this campaign.

¹⁶ See GM’s August 12, 2019 Responses, at Table 12-7.

¹⁷ These rates were calculated using warranty claims from both RQ19-003 and EA20-002.

¹⁸ These rates were calculated using warranty claims from both RQ19-003 and EA20-002.

¹⁹ 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.

for each warranty claim. If a vehicle had another type of field action²⁰ performed, i.e. a special coverage, it would be repaired under the labor code for the field action. Therefore, the labor codes and labor code descriptions have been provided in the database.

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.

State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the Subject and Peer 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 warranty database for the labor codes that GM identified as potentially related to the Alleged Defect in the Subject Vehicles. These labor codes are summarized in Table 6-1. Each warranty record may have up to five verbatim fields. All verbatim claim fields were reviewed, and a claim was determined to be responsive if the verbatim indicated that the claim may have been related to the Alleged Defect in the Subject Component. There are no diagnostic trouble codes that are relevant to the Alleged Defect.

LABOR CODE	LABOR CODE DESCRIPTION
6440020 (C9020, C9021)	Front Seat Belt Buckle Replacement
6440390 (B9867, C9082, C9083)	Front Seat Belt Guide Adjuster Replacement
6440950 (C9288)	Seat Belt Latch Stop Installation
6451030 (C9032)	Front Seat Belt Anchor Plate Tensioner Replacement
6451050 (C9040, C9041)	Driver or Passenger Seat Retractor Side Belt Replacement
6480008	Reposition Front Seat Belt Latch Plate, One or Both
9900624 ²¹	Replace Driver Seat Belt Tensioner Kit
9900595 ²²	Replace Front Seat Belt Anchor Plate Tensioner
9900724 ²³	Replace Front Seat Belt Anchor Plate Tensioner and Cushion Outer Finish Cover

²⁰ Other type of field action is limited to field actions related to the Alleged Defect.

²¹ Labor code for N192219480: Special Coverage Adjustment.

²² Labor code for N182194790: Special Coverage Adjustment.

²³ Labor code for N192289390: Special Coverage.

9900661 ²⁴	Replace Driver Seat Belt Tensioner Kit and Seat Cushion Outer Finish Cover
9900577 ²⁵	Replace Driver Seat Belt Tensioner Kit and Seat Cushion Outer Finish Cover
9900526 ²⁶	Replace Front Seat Belt Anchor Plate Tensioner and Cushion Outer Finish Cover
9900530 ²⁷	Replace Front Seat Belt Anchor Plate Tensioner and Cushion Outer Finish Cover

TABLE 6-1: LABOR CODES USED IN GART WARRANTY SEARCH

Table 6-2 summarizes the terms of new vehicle warranty coverage offered by GM on the Subject and Peer Vehicles:

MODEL YEAR	MAKE	WARRANTY TYPE	WARRANTY TERMS
2009-2016	Buick	Limited Bumper-To-Bumper	4 year / 50,000 miles
2009-2016	Cadillac	Limited Bumper-To-Bumper	4 year / 50,000 miles
2009-2016	Chevrolet	Limited Bumper-To-Bumper	3 year / 36,000 miles
2009-2016	GMC	Limited Bumper-To-Bumper	3 year / 36,000 miles
2008-2009	Pontiac	Limited Bumper-To-Bumper	3 year / 36,000 miles
2009-2010	Saturn	Limited Bumper-To-Bumper	3 year / 36,000 miles

TABLE 6-2: NEW VEHICLE WARRANTY COVERAGE OFFERED BY GM ON SUBJECT AND PEER VEHICLES

Many different optional extended warranty plans were available for the Subject and Peer Vehicles through GM dealerships. These plans were offered at different prices and for varying lengths of time, based on a customer’s preference. The Subject and certain Peer Vehicles had extended coverage on the Subject Component as described in response to Request 12.

REQUEST 7

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the Subject and Peer 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:

The documents that are responsive to Request 7, not previously provided in RQ19-003, are in the G231651_1_GM folder in the subfolder labeled “Q_07”.

²⁴ Labor code for N182201660: Special Coverage.

²⁵ Labor code for N182182960: Special Coverage.

²⁶ Labor code for 18127: Special Coverage Adjustment.

²⁷ Labor code for 18128: Special Coverage Adjustment.

REQUEST 8

Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, “actions”) that relate to, or may relate to, the alleged defect in the Subject and Peer 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.

GM RESPONSE:

GM identified responsive product investigations by conducting a reasonable search in GM’s Global Vehicle Safety-Case Observation Review and Evaluation (“**GVS-CORE**”) database, which is the primary electronic records database for GM’s Safety and Field Investigations organization. GM is aware of the following product investigations conducted by GM or at GM’s direction that relate to the Alleged Defect.

Investigations already listed in response to Request 9 or Exhibit B from GM’s August 19, 2019 response to RQ19-003 are not included in this table; GM incorporates those investigations by reference.

<u>Action 8-A: GM Internal Investigation N19-226838</u>	
Start/End Dates	August 27, 2019 – October 3, 2019
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated claims of Alleged Defect in 2016-2020 Chevrolet Camaro vehicles.

Outcome	On October 3, 2019, upon review of the collected data, GM's Safety Field Action Decision Authority (SFADA) decided to extend the warranty on the Subject Component in certain 2016-2020 Chevrolet Camaro vehicles for 10 years or 120,000 miles. This resulted in Special Coverage Bulletin N192268380.
Associated Documents	Information and documents contained in GVS-CORE related to investigation N19-226838. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 226838 in the index file.
<u>Action 8-B: GM Internal Investigation N20-228939</u>	
Start/End Dates	February 18, 2020 – May 7, 2020
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated claims of the Alleged Defect in certain 2014-2015 Chevrolet Silverado and GMC Sierra LD vehicles after recall 15822.
Outcome	On May 7, 2020, upon review of the collected data, GM's Safety Field Action Decision Authority (SFADA) decided to extend the warranty on the Subject Component in certain 2014-2015 Chevrolet Silverado and GMC Sierra LD vehicles for 12 years and 180,000 miles. This extended the existing extended warranty under Special Coverage Bulletin 18128 which resulted in Special Coverage Bulletin N192289390.
Associated Documents	Information and documents contained in GVS-CORE related to investigation N20-228939. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 228939 in the index file.
<u>Action 8-C: GM Internal Investigation N20-228812</u>	
Start/End Dates	February 25, 2020 – May 7, 2020
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated claims of the Alleged Defect in 2014-2017 Chevrolet Silverado and GMC Sierra LD vehicles not subject to a recall.
Outcome	On May 7, 2020, upon review of the collected data, GM's Safety Field Action Decision Authority (SFADA) decided to extend the warranty on the Subject Component in certain 2014-2017 Chevrolet Silverado and GMC Sierra LD vehicles for 12 years and 180,000 miles. This extended the existing extended warranty under Special Coverage Bulletin 18127, which resulted in Special Coverage Bulletin N192289390.
Associated Documents	Information and documents contained in GVS-CORE related to investigation N19-228812. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 228812 in the index file.

<u>Action 8-D: GM Internal Investigation N20-231210</u>	
Start/End Dates	August 11, 2020 – October 8, 2020
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated claims of the Alleged Defect in certain 2014 – 2017 Chevrolet Caprice and SS vehicles after recall.
Outcome	On October 8, 2020, upon review of the collected data, GM’s Safety Field Action Decision Authority (SFADA) decided to conduct a safety recall on certain 2014-2016 Chevrolet SS and Caprice Police Pursuit Vehicles (PPV) that were previously repaired under NHTSA recall number 16V-518 but where the redesigned seat trim was not reinstalled during the remedy repair. See safety recall bulletin N202312100 (NHTSA recall 20V-638)
Associated Documents	Information and documents contained in GVS-CORE related to investigation N20-231210. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 231210 in the index file.
<u>Action 8-E: GM Internal Investigation N21-233004</u>	
Start/End Dates	February 9, 2021 – April 1, 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated repairs made to the Subject Component after Safety Recalls 15822/18156 or Special Coverages 18127/18128/N192289390 in certain 2014-2016 Chevrolet Silverado and GMC Sierra and certain 2015-2016 Chevrolet Tahoe vehicles.
Outcome	On April 1, 2021, upon review of the collected data, GM’s Safety Field Action Decision Authority (SFADA) decided to conduct a safety recall to correct vehicles repaired under a previous bulletin because the vehicles had received an incorrect replacement part. See safety recall bulletin N212330040 (NHTSA recall 21V-245).
Associated Documents	Information and documents contained in GVS-CORE related to investigation N21-233004. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 233004 in the index file.
<u>Action 8-F: GM Internal Investigation N21-234112</u>	
Start/End Dates	June 8, 2021 – July 1, 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering

Description	GM investigated certain 2014-2017 Chevrolet Silverado and GMC Sierra vehicles that were inadvertently excluded from Special Coverage 18127 or N192289390.
Outcome	On July 1, 2021, upon review of the collected data, GM’s Safety Field Action Decision Authority (SFADA) decided to add the vehicles to the existing Special Coverage N192289390 and notify the customers.
Associated Documents	Information and documents contained in GVS-CORE related to investigation N21-234112. The files are in the G231651_1_GM and G231651_2_GM_CONF folders labeled as 234112 in the index file.
<u>Action 8-G: GM Internal Investigation N20-231652</u>	
Start/End Dates	September 2, 2020 – November 4, 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	GM investigated claims of the Alleged Defect in the Subject and Peer Vehicles following NHTSA’s initiation of EA20-002.
Outcome	On November 4, 2021, upon review of the collected data, GM’s Safety Field Action Decision Authority (SFADA) decided to close the investigation finding no additional field action necessary. Those vehicles that are currently included in a special coverage field action can continue to utilize the current extended coverage options.
Associated Documents	Information and documents contained in GVS-CORE related to investigation N20-231652. The files will be provided in GM’s supplemental data submission by December 10, 2021.

TABLE 8-1: GM INVESTIGATIONS OF THE ALLEGED DEFECT IN THE SUBJECT AND PEER VEHICLES SINCE RQ19-003

GM is producing the nonprivileged documents that are responsive to Request 8 in the G231651_1_GM and G231651_2_GM_CONF folders in the subfolders labeled “Q_08”. The index file provided is a directory of the files with the original file names and is labeled as listed in Table 8-1.

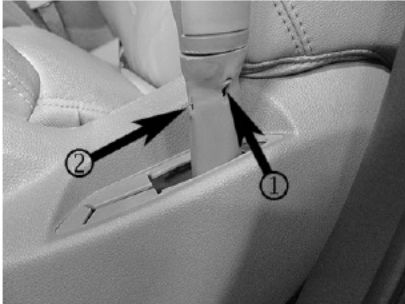
REQUEST 9



Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, “actions”) specifically done in response to the investigation to assess the Alleged Defect and its affect on the Subject Vehicles whether conducted or planned by or for GM. For each such actions, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;

- c. The actual or expected end date;
- d. 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. All reports, summaries, presentations documenting the findings and/or conclusions from the action.

GM RESPONSE:

<u>Action 9-A: Field Parts Collection</u>	
Start/End Dates	October 2020 - September 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering
Description	<p>This program harvested components for the testing program described below in Action 9-B. GM replaced the Subject Component in employee and customer Subject Vehicles and certain Peer Vehicles (2011-2012 Chevrolet Malibu; 2014-2015 Chevrolet Silverado 1500; 2014-2015 GMC Sierra 1500) that had previously had the Subject Component replaced in one of the Recalls. GM selected sample parts for further testing based on the following selection criteria: (a) the part appeared to pass the dealer field-inspection criteria in GM’s special coverage bulletin N202316510; and (b) the vehicle had accrued at least 50,000 miles since the recall repair.</p> <p>The following photo from a GM dealer service bulletin describes the inspection criteria:</p> <p>2. Inspect the seat belt tensioner cable cover for damage. Inspect the complete cable cover from the base of the cable to the buckle.</p>  <p>This damage will be in the form of holes (1) or splitting (2).</p> <ul style="list-style-type: none"> • If any damage is found, take the vehicle to the dealer for service. • If no damage is found, the special coverage condition is not present on the vehicle at this time.

Outcome	Out of 586 parts harvested, 415 parts met the selection criteria and were shipped for CT scanning. These parts had an average of 103,000 total miles and an average of five years exposure since the recall repair was completed. GM also selected an additional 19 parts (6 Lambda, 6 Malibu and 7 K2xx) with visible wear and had high mileage—an average of 150,000 miles—for CT scanning.
Associated Documents	Files associated with the field parts collection are in the G231521_2_GM_CONF folder in the Q_09, Q_09_A subfolder.
Action 9-B: Field Part CT Scanning	
Start/End Dates	October 2020 – October 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering, Nikon Metrology, Inc.
Description	Determine whether seat belt lap pretensioner parts from the field that had previously had the Subject Component replaced in one of the Recalls have individual wire breakages in a cable strand from field usage.
Outcome	<p>All 19 “high mileage” parts (6 Lambda, 6 Malibu and 7 K2xx) with visible wear passed CT scanning with no visible broken cable strands. CT scanning identified only two retrieved parts in the main population of 415 components that had any detectable strand damage, and the damage in both cases was minor: one part had a single broken strand and the other had a single partially broken strand. Both of these components had visible exterior damage to the cover housing that, had the vehicle been presented to a dealership, might have prompted a precautionary replacement even though the damage had not progressed to an actual cut in the sleeve:</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Based on previous testing of parts with broken cable strands (See the Powerpoint presentation titled “K2xx Field Parts Analysis,” included in GM’s document production), these two parts would still meet or exceed GM’s tensile strength requirements. Given the <i>de minimis</i> nature of the damage to the cable strands and GM’s prior strength testing, GM did not strength test these two additional cables; instead, GM forensically disassembled</p>

	both parts to assess whether another root cause (e.g., metallurgical) might have caused the strand breaks. No other root cause was identified.
Associated Documents	Files associated with the field part CT scanning are in the G231521_2_GM_CONF folder in the Q_09, Q_09_B subfolder.
<u>Action 9-C: Field Part Tensile Testing</u>	
Start/End Dates	May 2021 – October 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering, Autoliv ASP., ZF-Group
Description	The purpose of this testing was to confirm lap pretensioner parts from customer vehicles meet tensile strength requirements after prolonged field usage.
Outcome	All 37 field parts tested, 19 with and 18 without visible wear to the exterior cover, met GM's 14.7 kN ²⁸ tensile strength requirement. None of these cables had evidence of internal cable damage in CT scanning. This confirms that strength levels of parts in the field remain robust and strength levels meet specification even after prolonged use.
Associated Documents	Files associated with the field part tensile testing are in the G231521_2_GM_CONF folder in the Q_09, Q_09_C subfolder.
<u>Action 9-D: Cable Fatigue Testing</u>	
Start/End Dates	November 30, 2020 – August 30, 2021
Involved Engineering Groups	GM Global Safety and Field Investigations, GM Global Engineering, MGA Research Corporation
Description	Testing was developed to attempt to evaluate lap pretensioner cable wear during seat ingress/egress testing. This is not our standard GMW17375 Ingress/Egress Safety Belt Pyrotechnic Lap Pretensioner (PLP) Durability Test that we run for production programs. The purpose of the test was to artificially age test parts with an accelerated-damage process.
Outcome	GM ultimately stopped pursuing this accelerated-aging testing program because it was ultimately determined not to accurately replicate observed field aging and had unacceptable repeatability. An accelerated lab test using a robot-controlled form to enter the seat and fatigue the lap pretensioner requires repositioning the pretensioner in the ingress path. This is not representative of the field-aging process, in which

²⁸ This tensile-strength requirement exceeds FMVSS 209 test requirements.

	<p>the cable’s positioning is dynamic and impacted by in-vehicle variables (retractor strength, seat positioning, seat material, seat type, bolster wear) and occupant behaviors. By repositioning the cable in this manner and rapidly accelerating the aging process, this testing over-aggravated damage to the cable and under-aggravated the shrink tube or sleeve, damaging the parts in a way that is not consistent with observed cable/sleeve wear in field-return part returns and producing results that could not be correlated to field data. The test was done by the robot sliding in and out of the vehicle, skipping the step an occupant would take to buckle the seat belt upon entry and unbuckle the seat belt upon exit, which did not represent the proper position of the Subject Component upon egress.</p> <p>There was also significant observed variation between parts in the two-test series that GM conducted,²⁹ suggesting that the test procedure itself has poor test-to-test repeatability.</p>
Associated Documents	Files associated with the cable fatigue testing are in the G231521_2_GM_CONF folder in the Q_09, Q_09_D subfolder.

REQUEST 10

Describe all modifications or changes made by, or on behalf of, GM in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the Subject and Peer 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

²⁹ This is documented in the Active Test Tracking Date Chart spreadsheet in the G231651_2_GM_CONF folder, the Q09_D subfolder.

- 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 spreadsheet summary of GM change history on the Subject Component in the Subject and Peer Vehicles for field actions is provided in the G231651_2_GM_CONF folder; subfolder labeled "Q_9".

REQUEST 11:

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

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

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

GM RESPONSE:

The requested sales information for the Subject Component in both production and service versions is provided in the G231651_1_GM folder; subfolder labeled "Q_11." There are two files, one for dealer repair orders and one for customer paid repairs. The dealer RO file summarizes the sale volume by make, model and model year and date of sale. The make, model and model year are not provided in the customer paid file since VIN information is not available.

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 or, in the case of a dealer sale, whether the part was actually used to repair a customer vehicle or is being held as dealer stock. The Subject Component is very rarely replaced due to the Alleged Defect. The most common reasons for replacement of the Subject Component are for electrical issues (including airbag light on), a broken plastic cover, or, in the case of a Special Coverage, for sleeve wear. It could also be replaced due to crash damage or pretensioner deployment.

REQUEST 12:

Furnish, in tabular form, a list of any and all field actions that relate or may relate to the repair and/or replacement of the Subject Component. Field action should include, but not be limited to, recalls, customer service campaigns, special policy adjustments, warranty actions, or Technical Service Bulletins. For each field action, provide the following information:

- a. Identifying number for the field action;
- b. Vehicles affected;
 - i. Make;
 - ii. Model;
 - iii. Model year;
- c. Completion rate;
- d. Brief description of repair;
- e. Replacement component part number.

GM RESPONSE:

The requested information for the Subject Component is provided in the G231651__GM__CONF folder; subfolder labeled "Q_12." Subparts "d" and "e" are included in response to Request 10.

REQUEST 13:

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

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

GM RESPONSE:

- A. **GM's position is unchanged from RQ19-003: The Subject**

Components in the Recalled Vehicles and in Nonrecalled Peer Vehicles do not contain a safety-related defect

Over the last two years since submitting its RQ19-003 IR responses, GM has continued to monitor and, where appropriate, investigate the performance of the Subject Components in the field and the effectiveness of its recall-remedy and non-recall service repairs to the Subject Components. As summarized in GM's response to Request 8, GM has not hesitated to conduct field actions, including safety recalls (*See, e.g.*, NHTSA recalls 20V-638 and 21V-245), to replace the Subject Component where justified by field data or other engineering analysis.³⁰

Outside of these discrete vehicle populations, however, the Subject Components are performing safely and as designed in the field. As ODI stated in the opening resume for this investigation, "GM's data confirms the low potential failure rate for the vehicles covered by recall 14V266." GM's refreshed field-data analysis reinforces that this low rate of occurrence has not changed since the agency initiated RQ19-003:

- The post-recall rate (field claims and warranty) for the Subject Vehicles and the recalled Peer Vehicles is extremely low: 0.34 RPTV @ 87 MIS.³¹
- The highest rate (field and warranty) for the Nonrecalled Peer Vehicles included in a special-coverage campaign is also extremely low: 0.38 RPTV at 78 MIS.³² The rates for all other Nonrecalled Peer Vehicles are lower still.
- These vehicles have a combined average of nine years of field exposure. All of these claim rates are well below GM's standard expected warranty IPTV for comparable safety-system components, even with significantly less field exposure—*See* Table 12-7 in GM's August 12, 2019 Responses.
- Among these new claims, GM is aware of only one new alleged responsive crash and two new alleged responsive injuries. As discussed above, both of these claims are, on closer examination, not credible and/or not conclusively attributable to the Alleged Defect.

GM incorporates the arguments and analysis in its prior response in RQ19-003 herein.

B. Cable damage in the Subject Components is highly detectable and occurs well before any material loss of cable strength

GM's understanding is that the primary focus of ODI's inquiry in this EA is on the detectability of the Alleged Defect in the Subject Component: "ODI believes that complainants

³⁰ *See* GM's August 12, 2019 Responses in RQ19-003 at 17-18 (highlighting component failure rates in certain police-specific vehicle applications, which tend to be aggravated by the unique nature of law enforcement vehicle usage).

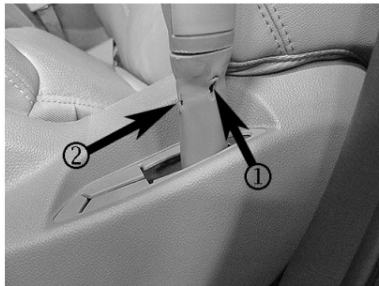
³¹ As discussed above, GM omitted separation claims involving Recalled Vehicles that had not received the recall remedy as of the date of the alleged incident.

³² This is the rate for the 2015-2016 Chevrolet Silverado and GMC Sierra vehicles not under recall.

may not recognize accumulating cable fatigue damage from the visual cues available in routine vehicle use.”

GM disagrees. GM testing, field data, and warranty data demonstrate that Subject Component damage, when it does rarely occur, is highly detectable to customers and dealers—well in advance of any material loss of cable strength. If there is damage to the cable sleeve, it is apparent in the form of tears, punctures, rips and abrasions, and GM’s Recall and special-coverage dealer instructions call for the replacement of the Subject Component:

2. Inspect the seat belt tensioner cable cover for damage. Inspect the complete cable cover from the base of the cable to the buckle.



This damage will be in the form of holes (1) or splitting (2).

- If **any damage** is found, take the vehicle to the dealer for service.
- If no damage is found, the special coverage condition is not present on the vehicle at this time.

GM’s field- and warranty-data analysis demonstrates that, if damage is visible, customers and dealers are identifying the damage and getting a Subject Component replacement. Approximately 14,408 vehicles have been serviced (either with an inspection or with a proactive Subject Component replacement due to identified exterior wear) under one of GM’s special-coverage programs covering the Subject Component. The number of Subject Components replaced proactively speaks to the detectability of the damage and customer/dealer awareness of the need to replace the Subject Component when sleeve damage occurs.

If no damage is visible on the sleeve, GM’s CT scanning program—which tested parts that would likely pass the special-coverage or recall inspection procedure at a dealership—demonstrated that the Subject Component will meet GM’s tensile-strength requirement of 14.7 kN. Out of 434 total parts in the study, including 19 “high mileage” parts, only two had any detectable strand damage. In both cases, the damage to the cable was minor, affecting just a single strand of a multi-strand cable. And consistent with GM’s position that internal cable damage presents to the owner and dealer as detectable exterior damage, both of these cables had preliminary warning signs of exterior damage:



As GM discussed with the agency on July 28, 2020, a single damaged strand will not adversely impact the cable's tensile strength. GM previously strength tested Subject Components that had been cycled to induce strand damage. The damage to these cables was far more extensive than a single broken strand:



Example of cycled part from testing with visibly broken strands.

When GM strength tested these damaged cables, they separated at 23.5 kN and 20.3 kN, respectively—closer to GM's strength expectations for *brand new* cables (22 kN) than to GM's minimum requirement of 14.7 kN.

Consistent with GM's position, an extensive body of field data demonstrates that the Subject Components are performing as designed during crash events. As GM explained in its earlier responses, the process of bending the cable causes "gradual, non-critical cable damage" that can, if allowed to progress, "reac[h] a tipping point and progres[s] quickly to highly-detectable total separation." This is reflected in field data: When the Subject Components do rarely fail in the field, they fail when the belt is being buckled. The relevant VOQs cited in the Opening Resume also support this conclusion; all contain statements from the claimant indicating that the separation occurred while the vehicle was parked.

In its response to the RQ, GM stated that, out of a population of over 13 million vehicles, it was only aware of one confirmed separation event that alleged that the cable separated in a crash and caused an injury. That data point has not changed; the new claims that GM is aware of are, as discussed above, either unconfirmed or not credible. The alternative hypothesis—that the Subject Components in the field are being weakened in an undetectable way and are failing to restrain

Letter to Tanya Topka
EA20-002 Response
November 15, 2021

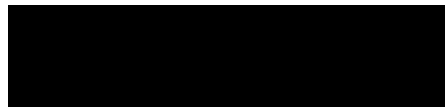
occupants during crash events—is simply not supported by current testing or by field and warranty data, which draws upon a very large vehicle population with significant field exposure.

CONCLUSION

While GM will continue to monitor the performance of the Subject Component in the Subject and Peer Vehicles in the field, GM concludes, based on current data, that the Subject Component (as installed in the remedied Recalled Vehicles and Nonrecalled Vehicles) is not defective and does not pose an unreasonable risk to motor vehicle safety. GM's Responses are based upon its investigation to date and reflect its current information and assessment. GM reserves the right to supplement or amend its Responses as appropriate.

Please contact me or Matt Jerinsky (matthew.jerinsky@gm.com) of our Washington, D.C. offices if you require further information about this response or the nature or scope of our searches.

Sincerely,



Sabrina Groshek, Executive Director
Global Systems and Product Investigations

cc: Ms. Sharon Yukevich
ODI_IRresponse@dot.gov

Enclosures

G231651_1_GM – Public copy of GM's document production

Exhibit A
GM's Response to Request 1

Row Labels	2008*	2009	2010	2011	2012	2013	2014	2015	2016	Grand Total
Buick			55,858	113,074	119,540	153,049	165,390	219,365	194,219	1,020,495
Enclave								61,149	51,581	112,730
Encore						28,636	53,704	67,971	80,094	230,405
Envision									8,782	8,782
LaCrosse			55,858	62,533	60,897	54,416	46,951	42,156	32,318	355,129
Regal				50,541	26,003	19,437	19,340	18,555	21,444	155,320
Verano					32,640	50,560	45,395	29,534		158,129
Cadillac		50,955	88,894	117,094	120,285	165,268	159,085	153,873	144,141	999,595
ATS						39,392	36,427	22,134	22,229	120,182
CT6									7,372	7,372
CTS		50,955	40,072	57,945	52,553	33,349	39,493	12,577		286,944
ELR							2,318	16	524	2,858
Escalade								45,553	46,980	92,533
SRX			48,822	59,149	67,732	50,573	51,884	58,686	44,617	381,463
XTS						41,954	28,963	14,907	22,419	108,243
Chevrolet	192,925	297,189	760,684	995,280	936,512	1,556,253	1,764,873	1,764,873	1,697,982	8,201,698
Aveo					22	1	2	1	1	27
Camaro									48,678	48,678
Caprice				1,588	3,276	3,729	4,433	1,369	844	15,239
Colorado								64,460	138,287	202,747
Corvette						840	34,590	31,090	37,281	103,801
Cruze				177,405	270,698	207,659	345,212	172,547	207,672	1,381,193
Equinox			139,664	188,496	220,968	259,364	214,116	284,534	209,091	1,516,233
Impala	192,925	157,525	177,625	172,104	131,798	191,164	191,164	118,285	93,303	1,234,729
Malibu			211,201	225,862	211,357		156,093	209,920	237,428	1,251,861
Silverado							502,056	453,000	389,386	1,344,442
Sonic				83,985	94,256	83,217	76,743	43,427	43,427	381,628
SS							3,528	3,163	2,220	8,911
Suburban								79,950	66,680	146,630
Tahoe								145,919	108,303	254,222
Traverse								111,840	106,436	218,276
TRAX						3	2			5
Volt				4,369	18,365	27,505	21,840	12,052	8,945	93,076
GMC		48,615	83,538	100,103	108,264	108,264	279,832	534,074	431,782	1,586,208
Acadia								95,668	72,342	168,010
Canyon								25,357	48,008	73,365
Sierra							188,630	187,129	132,851	508,610
Terrain			48,615	83,538	100,103	108,264	91,202	116,277	81,597	629,596
Yukon								109,643	96,984	206,627
Pontiac	12,047	26,407								38,454
G8	12,047	26,407								38,454
SAAB				539						539
9-4x				539						539
Grand Total	12,047	270,287	490,556	1,074,929	1,335,208	1,363,093	2,160,560	2,672,185	2,468,124	11,846,989

*2008MY included for Pontiac G8 only because it was part of the recall population.

EXHIBIT B

Seat Belt Lap Anchor Tensioner Investigations

GM's Response to Requests 2 and 5 for Peer Vehicles

Core ID#	Vehicles	Field Action Decision	Decision Date	From RQ19-003		From EA20-002			Total (Unique VIN)*	US Population
				US Claims	Injuries	Complaints	Warranty	Injuries		
A19-221721	2009-2016 Cruze (1st Generation)	CWNFA	7/25/2019	1	0	0	1	0	2	1,290,957
N - 150206 (164892)	2011-2015 Verano	CWNFA	6/10/2015	0	0	0	1	0	1	158,129
221028	2010-2016 Buick LaCrosse; 2013-2016 Malibu	CWNFA	5/16/2019	2	0	0	3	0	5	1,008,569
219479	2011-2012 Chevrolet Malibu after recall N15031	Special Coverage 10/120	2/7/2019	27	0	25	74	0	120	437,063
220166	2016 Camaro	Special Coverage 10/120	3/4/2019	3	0	1	4	0	8	48,678
218296	2014-2016 Chevrolet Impala E	Special Coverage 10/120	9/27/2018	15	0	10	50	0	70	402,752
214781	2009-2016 Chevrolet Impala	CWNFA	4/12/2018	18	0	3	1	0	21	967,430
218295	2013-2016 Cadillac XTS	CWNFA	9/27/2018	8	0	3	5	0	16	108,243
215326	2015-2016 Full-size SUV (-9C1/5W4)	CWNFA	4/12/2018	3	0	6	4	0	12	678,254
215326	2014-2016 Full-size Pick-up (non-recall)	Special Coverage 10/150	4/12/2018	28	0	20	283	1	308	1,011,566
213170	2014-2015 Full-size Pick-up after recall 15822	Special Coverage 10/150	4/12/2018	43	0	45	353	1	418	895,464
213185	2014-2016 Full-size Pick-up/SUV 9C1/5W4	Safety Recall 18156*	4/26/2018	6	0	0	0	0	0	23,004
213216	2015-2016 Acadia, Enclave & Traverse	CWNFA	1/4/2018	2	0	5	5	0	11	499,016
208801	2012-2016 Chevrolet Aveo/Sonic	CWNFA	6/22/2017	8	0	4	0	0	12	381,655
203134	2014-16 Caprice PPV/SS	Safety Recall 31340*	6/29/2016	9	0	1	2	0	3	15,486
N - 150206 (164892)	2011-2013 Caprice PPV (Z1)	Safety Recall 15206*	6/10/2015	2	0	0	0	0	0	8,593
N - 150206 (164892)	2008-2009 Pontiac G8 (Z1)	Safety Recall 15206*	6/10/2015	10	0	0	0	0	0	38,449
N - 150206 (164892)	2010-2015 Equinox/Terrain	CWNFA	6/10/2015	2	0	11	8	0	21	1,781,491
A - 140568 (164195)	2011-14 Encore/Trax	CWNFA	10/8/2014	0	0	0	2	0	2	86,334

*For vehicles that list a Safety Recall for 'Field Action Decision,' the claim counts from RQ19-003 were prior to the recall and not included in the 'Total (Unique VIN)' count.

Notes:

1. The chart is limited to 2009-2016 Peer Vehicles. Claim counts may vary for those that included Peer Vehicles outside of the 2016MY in RQ19-003.
 2. Investigations N-150031 (164804), and 170219 were not included the chart since these this data was pre-recall data and subsequent investigations are listed which include data since the recall.
- These vehicles are part of a previous recall and the Total claim counts are only post recall repair claims.

No previous Investigation	Vehicles	-	-	-	-	Complaints	Warranty	Injuries	Total (Unique VIN)*	US Population
EA20-002	2016 Chevrolet Cruze (2nd Generation)	-	-	-	-	0	1	0	1	90,236
EA20-002	2013-2016 Cadillac ATS	-	-	-	-	1	1	0	2	120,182
EA20-002	2015-2016 Chevrolet Colorado, GMC Canyon	-	-	-	-	1	2	0	3	276,112
EA20-002	2011-2015 Chevrolet Volt	-	-	-	-	1	1	0	2	84,131
EA20-002	2010-2016 SRX	-	-	-	-	0	1	0	1	381,463
EA20-002	2011-2016 Regal	-	-	-	-	0	2	0	2	155,320

Peer Vehicles not listed in this table were found to have no relevant claims.