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April 25, 2014

**VIA HAND DELIVERY AND U.S. MAIL**

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent:

Enclosed is General Motors LLC's ("GM") Supplemental, Restated, and Consolidated Response to the Special Order issued by the Secretary of Transportation on March 4, 2014 ("March 4, 2014 Special Order").

GM's submission today is contained on one DVD. The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

GM's search for information and documents responsive to the March 4, 2014 Special Order is not yet finished and is continuing. GM will supplement, modify, or amend the response if it discovers additional information responsive to the requests in the March 4, 2014 Special Order.

Please do not hesitate to contact me if you, Mr. Goodman, or Ms. Kolodziej wish to discuss the response or other matters.

Sincerely,

A handwritten signature in cursive script that reads "Lucy Clark Dougherty".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated

**UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

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**In re:**

TQ14-001

NHTSA Recall No. 14V-047

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**GENERAL MOTORS LLC'S SUPPLEMENTAL, RESTATED, AND  
CONSOLIDATED RESPONSE TO MARCH 4, 2014 SPECIAL ORDER**

General Motors LLC ("GM") submits this Supplemental, Restated, and Consolidated Response to the Special Order issued by the Secretary of Transportation on March 4, 2014 ("March 4, 2014 Special Order"), subject to GM's General Statement Regarding Limitations and Other Qualifications to Its Responses below. Between March 25, 2014, and April 25, 2014, GM has submitted 23 partial and/or interim responses to the March 4, 2014 Special Order. To date, GM has collected documents from more than 90 custodians and produced to the National Highway Traffic Safety Administration ("NHTSA") more than 113 GB of data, including approximately 49,000 documents (more than 407,000 pages).

This Supplemental, Restated, and Consolidated Response to the March 4, 2014 Special Order ("Response") combines and incorporates the responses previously provided in GM's first through twenty-third partial and/or interim responses and also provides supplemental information.

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## REQUESTS & RESPONSES

1. Separately for each model and model year vehicle included within this recall, state the manufacturer and part number of the ignition switch.

Response:

The manufacturer and part number of the ignition switch for each model and model year vehicle included within this recall are provided in the following chart.

Model Year	Make	Model	Ignition Switch Part Number	Manufacturer of Ignition Switch
2003	Saturn	Ion	12450250	Delphi
2004*	Saturn	Ion	12450250	Delphi
2005	Saturn	Ion	10392423	Delphi
2005	Chevrolet	Cobalt	10392423	Delphi
2006	Saturn	Ion	10392423	Delphi
2006	Chevrolet	Cobalt	10392423	Delphi
2006	Chevrolet	HHR	10392423	Delphi
2006	Pontiac	Solstice	10392423	Delphi
2007	Saturn	Ion	10392423	Delphi
2007	Chevrolet	Cobalt	10392423	Delphi
2007	Chevrolet	HHR	10392423	Delphi
2007	Saturn	Sky	10392423	Delphi
2007	Pontiac	G5	10392423	Delphi
2007	Pontiac	Solstice	10392423	Delphi

\* GM released ignition switch part number 10392423 as a service part beginning in April 2004.

On March 27, 2014, as amended on March 28, 2014, GM submitted a Part 573 Letter to NHTSA regarding its determination to conduct a safety recall relating to the following Ignition & Start Switch Housing Kits that contain or may contain

ignition switch part number 10392423: GM Parts and ACDelco service part numbers 10392737, 15857948, 15854953, 15896640, and 25846762. GM records indicate these service parts may have been installed during repairs in some 2008-2010 model year Chevrolet Cobalt, 2008-2011 model year Chevrolet HHR, 2008-2010 model year Pontiac Solstice, 2008-2010 model year Pontiac G5, and 2008-2010 model year Saturn Sky vehicles, as well as in some other vehicles.

2. For each unique design version and/or part number, provide diagrams, engineering drawings, and turning torque performance requirements for the subject ignition switch assembly and all sub-components it consists of, including diagrams and engineering drawings for each unique design version of OEM ignition key intended to be used in the subject switch. Discuss and describe the defect condition that can result in the subject switch moving from the run to the accessory or off position, or an interim position between these positions, under certain driving and/or crash incident conditions, including which specific sub-component(s) (*e.g.*, the detent plunger and/or spring) is/are the cause of or involved in the defect condition. Describe and discuss all modifications made to the ignition switch and/or ignition key and the purpose of the modification, state which specific components were modified, discuss when and how those components were modified, provide all part number changes that were associated with the modifications, and provide GM's analysis that proves or supports that the modifications were effective. Also discuss and describe any and all outside influences that may affect the likelihood that the defect condition will occur, such as key chain type or weight, non-OEM ignition key

designs, the specific vehicle dynamic/crash conditions that are of most concern, and any driver/occupant actions/practices that may be a factor. Provide a list of every make, model, and model year vehicle GM manufactured using the subject ignition switch, or any of the suspected and modified subcomponents, as discussed above. Lastly describe and discuss GMs use of the original and modified versions of the subject switch as service parts sold to third parties for both subject, and non-subject vehicle repairs, including how GM intends to manage and control any suspect stock or inventory of unmodified subject ignition switches that could inadvertently be used as a service part (and potentially introduce a defect condition into a vehicle).

Response:

Figure 1 below provides a photograph of the Ignition Switch Bill of Material (“BOM”) for the Delphi PN - 28443966 ASM-antitheft ignition switch.

FIGURE 1:

## Ignition Switch BOM

- Delphi PN – 28443966 (SWITCH ASM-ANTITHEFT IGNITION)

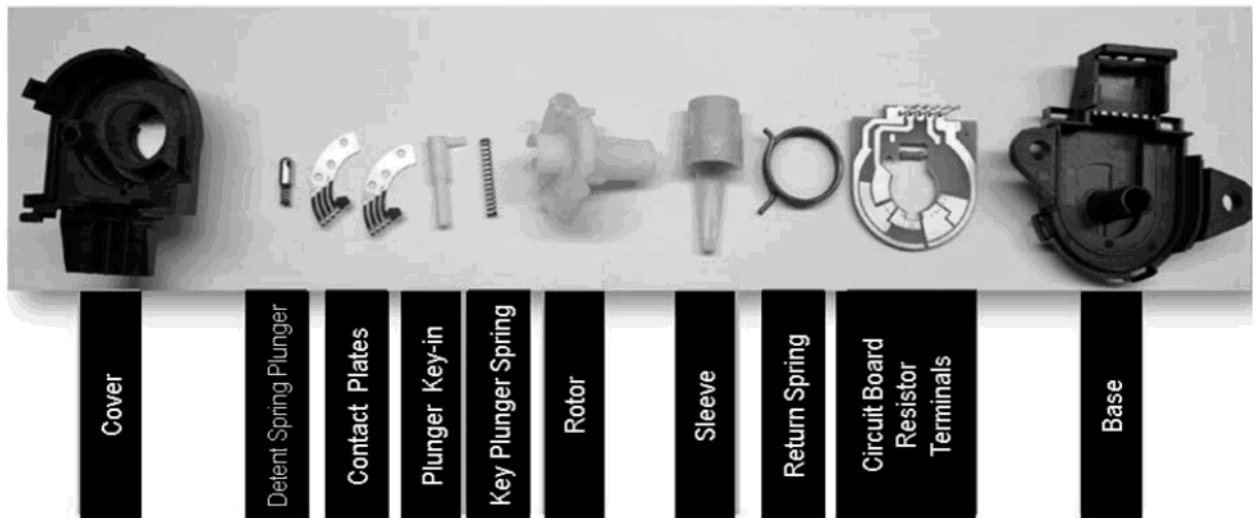


Diagram A

**(a) For each unique design version and/or part number, provide diagrams, engineering drawings, and turning torque performance requirements for the subject ignition switch assembly and all sub-components it consists of, including diagrams and engineering drawings for each unique design version of OEM ignition key intended to be used in the subject switch:**

GM has produced numerous copies of technical specifications that include diagrams, engineering drawings, or discussion of ignition switches, including the following Bates ranges: GMNHTSA000276054-082, GMNHTSA000276114-134, and GMNHTSA000276264-6324. *See also* GMNHTSA000279449-9538 (technical specifications for the “Steering Subsystem” of the Chevrolet Cobalt (GMX001) and Chevrolet HHR (GMT001) platforms); GMNHTSA000279671-280567, GMNHTSA000280568-586, and GMNHTSA000280589-0684 (PowerPoint

presentations entitled “2008 GMX001 Content,” “Lordstown Assembly Plant 2008 GMX001 Content Review,” and “Parts and Illustration Catalog” reflecting technical specifications for the Saturn Ion and Chevrolet Cobalt); GMNHTSA000197571-77 (Design information for part number 10392423); GMNHTSA000327902-942, GMNHTSA000327944-979, and GMNHTSA00328280-81 (Component Technical Specification Reports for ignition switch part number 12450250, which include torque requirements and sensor column data); and GMNHTSA000328308-311 (design drawings for ignition switch part number 15886190).

**(b) Discuss and describe the defect condition that can result in the subject switch moving from the run to the accessory or off position, or an interim position between these positions, under certain driving and/or crash incident conditions, including which specific sub-component(s) (e.g., the detent plunger and/or spring) is/are the cause of or involved in the defect condition:**

The torque performance of the ignition switch is the result of the plunger spring interacting with the detent profiles on the underside of the rotor as the plunger moves through the various detents. A PDF file with a diagram titled “REQUEST NUMBER TWO” is being provided with this submission. Should the detent plunger spring exert insufficient force on the detent profiles, low ignition switch torque could lead to unintended rotation or movement of the ignition switch out of the “run” position, even momentarily, to the “accessory” or “off” positions if the key ring is carrying added weight.

**(c) Describe and discuss all modifications made to the ignition switch and/or ignition key and the purpose of the modification, state which specific components were modified, discuss when and how those components were modified, provide all part number changes that were**

**associated with the modifications, and provide GM's analysis that proves or supports that the modifications were effective:**

The ignition switch (part number 12450250) was changed pursuant to Engineering Work Order #302726 (GMNHTSA000220667-681), initiated on February 19, 2004. The Engineering Work Order states: "Release a modified ignition switch design part number 10392423 for production to improve switch performance at cold temperatures." The changes to the ignition switch included: "New grease (NS-1304; Lower Contact Force; New PCB – FR4 Board)." This Engineering Work Order applied to the ignition switch utilized in the Saturn Ion (GMX357). In addition, this Engineering Work Order cancelled part number 12450250 and established part number 10392423. This Engineering Work Order was closed on September 14, 2004. GM, through Engineering Work Order #333314 (GMNHTSA000220697-0712), initiated on April 19, 2004, applied these changes to the Chevrolet Cobalt (GMX001). This Engineering Work Order was closed on April 6, 2005.

The ignition switch (part number 10392423) was later changed pursuant to Engineering Work Order #573556 (GMNHTSA000247275-290), initiated on October 12, 2005. The Engineering Work Order states: "revise OFF/RUN/CRANK circuit to include 1.3 K ohm resistor; 1% Tolerance; ¼ Watt; revise art work on PCB, *i.e.* move VIAs, increase trace width." This Engineering Work Order applied to the ignition switch for production in the Chevrolet Cobalt (GMX001), Pontiac Solstice (GMX020), Saturn Sky (GMX023), and Chevrolet HHR (GMT001). In addition, this Engineering



Work Order cancelled part number 10392423 and established part number 15886190. This Engineering Work Order was closed on June 12, 2006.

A General Motors Commodity Validation Sign-Off (GMNHTSA000002898) dated April 26, 2006, approved another change to the ignition switch. This document states: “Note that the [sic] during cycling, 1 amp was applied on the Delta Ignition Sw. This validation was submitted with New PCB correct timings adjusts as Customer required, also New detent plunger (Catera spring/Plunger) was implemented to increase torque force in the switch.”

In August 2011, a Field Performance Assessment Engineer was assigned to move forward with a Field Performance Evaluation (“FPE”) investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts. Based on the information then available, the investigation sought, among other things, to determine whether there were known engineering reasons that would explain why these reported non-deployment crashes involved 2007 and earlier model year vehicles, and not later model year vehicles.

The testing and analysis undertaken during the course of the FPE investigation determined, among other things, that certain ignition switches exhibited torque performance below that specified by GM for the ignition switch, and that the most prevalent shortfalls in performance were observed on ignition switches found in 2007 and earlier model year vehicles—a difference that was consistent with: (1) the fact that reported non-deployment crashes involved 2007 and earlier model

year vehicles, and not later model year vehicles; and (2) GM's belief that the supplier began providing the re-designed ignition switch to GM at some point during the 2007 model year. These determinations support the effectiveness of the modifications to the ignition switch.

**(d) Also discuss and describe any and all outside influences that may affect the likelihood that the defect condition will occur, such as key chain type or weight, non-OEM ignition key designs, the specific vehicle dynamic/crash conditions that are of most concern, and any driver/occupant actions/practices that may be a factor:**

In the course of physical and analytical testing that GM has conducted (as produced to NHTSA in response to the Second Special Order), the ignition switch did not turn from the "run" to "accessory" position in any of the tests conducted with only a typical key ring and the production key in the lock cylinder. GM has determined that, if the key ring is carrying additional weight, various combinations of the following outside influences affect the likelihood that low ignition switch torque could lead to unintended rotation or movement of the ignition switch out of the "run" position, even momentarily:

- mass of additional objects hanging from the key ring;
- length of additional objects hanging from the key ring;
- length of the slot in the key (through which the key ring is placed);
- physical position of the ignition cylinder axis in the steering column (plan view, side view, rear view and angle);
- significant vertical (up/down) and longitudinal (fore/aft) road inputs; and
- size of occupant, position of seat and column angle relative to ignition key.

According to GM's tests, including application of the principles of physics, when only the production ignition key is inserted in the lock cylinder, sufficient torque (twisting force) will not be generated to turn the ignition key from the "run" to "accessory" position due to road inputs. This is due to the symmetry of the production key, as there is no unbalanced mass that can react to acceleration from road inputs and create the necessary twisting force on the ignition key. As a result, our analyses show that a production key in the lock cylinder by itself will not exert sufficient torque to turn the ignition switch to the "accessory" position. Diagrams that illustrate the concepts explained above are included in a PDF file titled "REQUEST NUMBER TWO" with this submission.

Physical testing over a variety of aggressive road surfaces producing significant vertical and longitudinal road inputs confirmed this analysis and that the addition of a typical key ring does not affect the performance, *i.e.*, the ignition switch position did not move out of "run."

**(e) Provide a list of every make, model, and model year vehicle GM manufactured using the subject ignition switch, or any of the suspected and modified subcomponents, as discussed above:**

GM provided the list of every make, model, and model year vehicle GM manufactured using the subject ignition switch, or any of the suspected and modified subcomponents in its Part 573 submissions filed with NHTSA, and repeats those details below.

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2005	140,978	08/03/2004	06/17/2005	Cobalt	*
Chevrolet	A	2006	229,578	04/05/2005	06/09/2006	Cobalt	"
Chevrolet	A	2007	215,667	04/20/2006	08/16/2007	Cobalt	"
Pontiac	A	2007	32,899	04/20/2006	08/06/2007	G5	"
GM Total:			619,122				

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2006	113,911	04/11/2005	06/22/2006	HHR	*
Chevrolet	A	2007	99,672	05/15/2006	06/23/2007	HHR	"
Pontiac	M	2006	18,750	03/16/2005	06/23/2006	Solstice	"
Pontiac	M	2007	21,310	06/05/2006	06/15/2007	Solstice	"
Saturn	A	2003	96,358	06/01/2002	07/24/2003	Ion	"
Saturn	A	2004	121,107	04/29/2003	08/07/2004	Ion	"
Saturn	A	2005	71,024	04/27/2004	06/06/2005	Ion	"
Saturn	A	2006	96,227	04/13/2005	05/05/2006	Ion	"
Saturn	A	2007	94,118	04/05/2006	03/28/2007	Ion	"
Saturn	M	2007	15,547	12/06/2005	06/14/2007	Sky	"
GM Total:			748,024				

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2008	176,471	05/29/2007	06/26/2008	Cobalt	*
Chevrolet	A	2009	141,592	04/15/2008	08/11/2009	Cobalt	"
Chevrolet	A	2010	116,275	04/16/2009	06/23/2010	Cobalt	"
Chevrolet	A	2008	99,227	05/01/2007	06/26/2008	HHR	"
Chevrolet	A	2009	80,782	04/08/2008	06/18/2009	HHR	"
Chevrolet	A	2010	64,733	04/20/2009	06/15/2010	HHR	"
Chevrolet	A	2011	68,455	04/22/2010	05/27/2011	HHR	"
Pontiac	A	2008	20,206	05/30/2007	06/23/2008	G5	"
Pontiac	A	2009	20,662	05/22/2008	08/10/2009	G5	"
Pontiac	A	2010	3	04/16/2009	04/17/2009	G5	"
Pontiac	M	2008	14,088	04/24/2007	06/19/2008	Solstice	"
Pontiac	M	2009	4,207	04/17/2008	07/28/2009	Solstice	"
Pontiac	M	2010	19	04/21/2009	05/28/2009	Solstice	"
Saturn	M	2008	12,982	04/24/2007	06/19/2008	Sky	"
Saturn	M	2009	4,078	04/17/2008	05/19/2009	Sky	"
Saturn	M	2010	8	04/23/2009	05/26/2009	Sky	"

GM Total: 823,788

**(f) Lastly describe and discuss GM's use of the original and modified versions of the subject switch as service parts sold to third parties for both subject, and non-subject vehicle repairs, including how GM intends to manage and control any suspect stock or inventory of unmodified subject ignition switches that could inadvertently be used as a service part (and potentially introduce a defect condition into a vehicle):**

GM previously sold the subject switch to GM Dealers and ACDelco Parts Distributors as Ignition & Start Switch service part number 10392423, and the following Ignition & Start Switch Housing Kits that contain or may contain part number 10392423: GM Parts and ACDelco service part numbers 10392737, 15857948, 15854953, 15896640, and 25846762. GM records indicate that these service parts may have been installed during repairs in some 2008-2010 model year Chevrolet Cobalt, 2008-2011 model year Chevrolet HHR, 2008-2010 model year

Pontiac Solstice, 2008-2010 model year Pontiac G5, and 2008-2010 model year Saturn Sky vehicles. Safety recall letters will be mailed to owners of all 2008-2010 model year Chevrolet Cobalt, 2008-2011 model year Chevrolet HHR, 2008-2010 model year Pontiac Solstice, 2008-2010 model year Pontiac G5, and 2008-2010 model year Saturn Sky vehicles, and their ignition switches will be replaced.

In addition, a safety recall letter will be mailed to the owner of any vehicle other than those listed in the preceding paragraph or those subject to the recalls announced on February 7 and February 25, 2014,<sup>1</sup> identified in GM records as having been repaired with the subject ignition switch or one of the five housing kits identified above. Dealers will inspect the vehicle and, if the subject ignition switch is found, replace it with a new one.

GM has notified all GM Dealers and Parts Distributors to quarantine all defective part numbers and issued a stop sale of those part numbers. Dealers and Parts Distributors were instructed to return all suspect stock.

In addition, GM will issue a service parts safety bulletin to GM Dealers, ACDelco Distributors and other wholesale purchasers of part number 10392423 or service part assemblies that may contain part number 10392423, instructing them to post signs in the dealerships and other retail auto part businesses for over-the-counter sales, and identify and notify customers who may have purchased the referenced parts about the recall.

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<sup>1</sup> On February 7, 2014, GM announced a recall of 2005-2007 model year Chevrolet Cobalt and 2007 model year Pontiac G5 vehicles. On February 25, 2014, GM announced a recall of 2003-2007 model year Saturn Ion, 2006-2007 model year Chevrolet HHR and Pontiac Solstice, and 2007 model year Saturn Sky vehicles.

3. Discuss and explain in precise detail how the defect condition involving the subject switch moving from the run to the accessory or off or an interim position results in, or may result in the disablement of one or both frontal airbags, or can otherwise affect in any way other components or functionality of a passive safety system intended for occupant protection during a subject vehicle crash. Discuss and explain how the airbag sensing and diagnostic module (“SDM”) is affected by the defect condition, and how and why the SDM determines or otherwise causes the disablement of airbags or other active components when the defect condition occurs. State whether or not GM intended for the subject vehicle frontal airbags to deploy in a crash when the ignition switch is in the accessory position, or in the off position, or in an interim position, and describe any additional conditions or factors that may affect whether or not the SDM disables the frontal airbags when the ignition switch is in the accessory, or run position (*e.g.*, time elapsed since key-on, or time elapsed since key-off). State whether or not the SDM has any built-in. or onboard energy storage capability intended to provide power for the case where the normal power supply is interrupted, either through the ignition switch or via a crash related consequence (such as mechanical damage to the electrical harnessing, etc.), and if so, discuss the backup system and its capabilities and limitations. State whether or not other non-subject vehicle airbag systems would be similarly affected (*i.e.*, result in disabled airbags) by the movement of the ignition switch during a crash incident, and if they exist, discuss and explain any differences in non-subject vehicle airbag system performance, and why they occur.

Response:

**(a) Discuss and explain in precise detail how the defect condition involving the subject switch moving from the run to the accessory or off or an interim position results in, or may result in the disablement of one or both frontal airbags, or can otherwise affect in any way other components or functionality of a passive safety system intended for occupant protection during a subject vehicle crash:**

The airbag control module in the recalled vehicles at issue is known as the Sensing Diagnostic Module (“SDM”).<sup>2</sup> The SDM is an onboard electronic module which functions to continuously monitor the airbag system in the car while the ignition is on, to deploy the airbags, and to record certain crash and airbag system data in deployment and non-deployment level crash events. The SDM also functions as an energy reserve for airbag deployment should a vehicle lose power during an accident. The SDM senses vehicle decelerations, such as those experienced when the vehicle is in a frontal or near frontal collision. In these types of impacts, the occupant’s motion will be primarily forward into the seat belt and frontal airbag. If the SDM senses that the vehicle is stopping very quickly (*i.e.*, 1.5 – 2.0 g’s of deceleration), the sensing algorithm will be activated. This point in time is referred to as “algorithm enable.” Once the algorithm is enabled, the SDM will monitor vehicle inputs and perform calculations to determine if airbags should be deployed. In order for the frontal airbags to deploy, the vehicle must exceed a pre-determined deployment threshold. This threshold will be exceeded when the SDM experiences a

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<sup>2</sup> GM has previously produced a list of “Key Terms and Acronyms” relevant acronyms. (GMNHTSA000002851-52.)



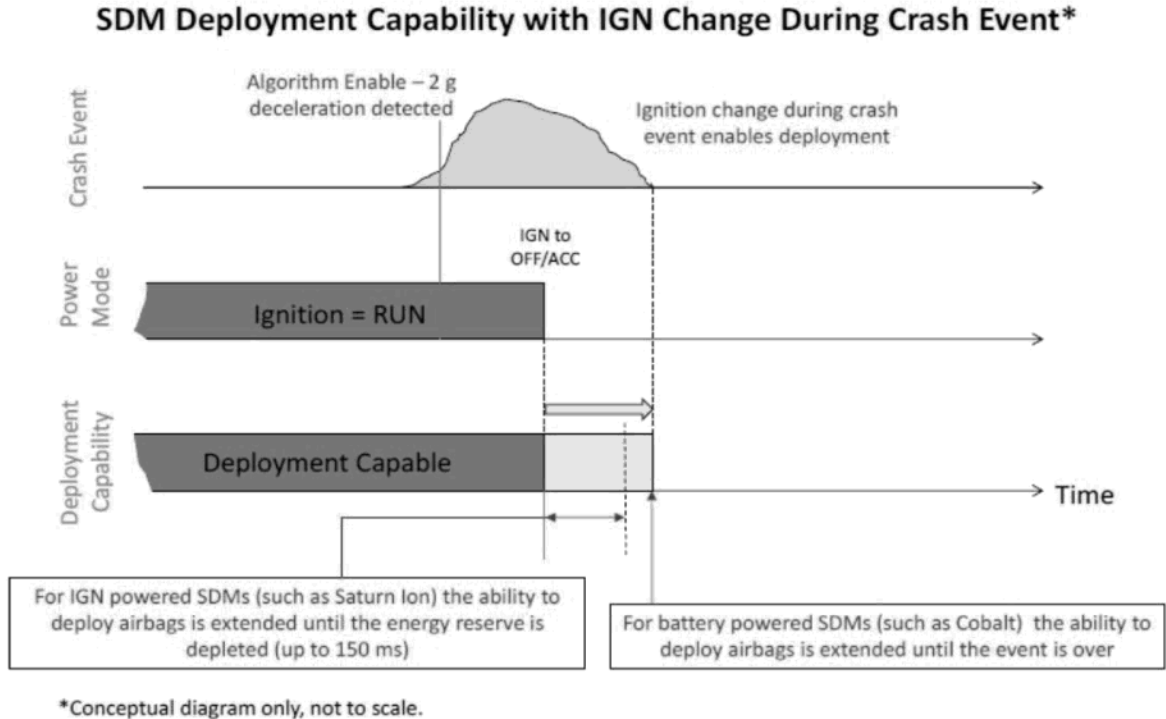
sufficient level of longitudinal deceleration to warrant deployment of the frontal airbags.

The SDM has the functionality that governs airbag deployment. The SDM takes the position of the ignition switch as an input when deciding to deploy an airbag. The SDM is designed to provide the ability to command airbag deployment when the ignition switch is in the “run” and “crank” positions, and not in the “accessory” and “off” positions.

**(b) Discuss and explain how the airbag sensing and diagnostic module (“SDM”) is affected by the defect condition, and how and why the SDM determines or otherwise causes the disablement of airbags or other active components when the defect condition occurs:**

In the recalled Saturn Ion vehicles, the ignition switch position governs the power supply to the SDM. Moving the ignition switch from the “run” position to the “accessory” or “off” positions will turn off the primary power supply to the SDM. Without primary power supply to the SDM, it will operate on energy reserve for a brief period of time. Based on conditions, that time period could be up to 150 milliseconds. See Figure 2 below.

FIGURE 2:



In the recalled vehicles other than Saturn Ion, the SDM is powered directly by the battery and the ignition switch position is an input to the SDM. Movement of the ignition switch from the “run” position to the “accessory” or “off” positions will be detected by the Body Control Module (“BCM”). The BCM broadcasts the vehicle’s power mode status (“off,” “accessory,” “run,” and “crank”) over the vehicle communications network to the SDM and other control modules in the vehicle. The SDM uses the ignition position information as an input to the airbag sensing algorithm.

In both SDM systems (*i.e.*, the Ion system and the system used by the other recalled vehicles), airbag sensing algorithms are enabled and sensing for a crash event when the vehicle’s key is in “run,” and will command deployment if required.

If the switch moves out of the “run” position after a crash event has begun and the airbag sensing algorithm has been activated, then the SDM will ignore the ignition state change and the sensing algorithm will remain active and continue to function, sense the crash, and command deployment of the restraints, if necessary. If the ignition switch moves out of the “run” position before a crash event has begun, and therefore before the airbag sensing algorithm has been activated, the SDM detects the vehicle is in “off” or “accessory” and disables the sensing algorithm. The SDM would then not command airbag deployment. If the switch moves out of run momentarily, the sensing algorithm will reinitialize and again be available to command deployment of the frontal airbags within three seconds.

**(c) State whether or not GM intended for the subject vehicle frontal airbags to deploy in a crash when the ignition switch is in the accessory position, or in the off position, or in an interim position, and describe any additional conditions or factors that may affect whether or not the SDM disables the frontal airbags when the ignition switch is in the accessory, or run position (e.g., time elapsed since key-on, or time elapsed since key-off):**

The technology of SDMs used in GM vehicles has evolved over time. One SDM feature that has remained constant is the fact that the SDM’s crash sensing algorithm can be enabled only when the ignition switch is in the “run” or “crank” positions, and not in the “accessory” or “off” positions. GM believes that this design feature helps minimize the risk to out-of-position occupants, e.g., anyone who is up against, or very close to any airbag such as a child in the car’s front seats when the vehicle is stationary, or an owner who may be servicing the vehicle.

A vehicle with an ignition switch that is not in the “run” position will have the engine off. Enabling the airbag system to deploy with the ignition switch out of the

“run” position while occupants would be free to move about the occupant compartment provides a greater potential for the occupant to be out of position and potentially injured by the deploying airbag. In fact, GM warns in its owner’s manual: “Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward.”

NHTSA also notes at Safercar.gov: “Because air bags deploy very rapidly, serious or sometimes fatal injuries can occur if the occupant is too close to - or is in direct contact with - the air bag when it first begins to deploy.” Additionally, a literature search of other OEMs owner’s manuals supports this operation as an industry practice.

**(d) State whether or not the SDM has any built-in, or onboard energy storage capability intended to provide power for the case where the normal power supply is interrupted, either through the ignition switch or via a crash related consequence (such as mechanical damage to the electrical harnessing, etc.), and if so, discuss the backup system and its capabilities and limitations.**

For the recalled vehicles, the SDM has onboard energy reserve capacity intended to provide enough power to continue sensing a crash and deploy frontal airbags for up to 150 milliseconds after the primary power supply to the SDM is interrupted.

The SDM requires power in order to operate. The SDMs used in the Saturn Ion and the rest of the recalled vehicles receive their primary power in different ways. In the Saturn Ion, the SDM receives its primary power through the ignition

switch. In the rest of the recalled vehicles, the SDM receives its primary power from the battery. This difference affects how the ignition switch position influences the functionality of the SDM, as shown in Figure 2 above.

**(e) State whether or not other non-subject vehicle airbag systems would be similarly affected (*i.e.*, result in disabled airbags) by the movement of the ignition switch during a crash incident, and if they exist, discuss and explain any differences in non-subject vehicle airbag system performance, and why they occur.**

Non-subject vehicle airbag systems would be affected by the ignition switch position in the same way as in subject vehicle airbag systems. Airbag sensing algorithms are enabled and sensing for a crash event when the vehicle's key is in "run," and will command deployment if required. If the switch moves out of the "run" position after a crash event has begun and the airbag sensing algorithm has been activated, then the SDM will ignore the ignition switch position change and the sensing algorithm will remain active and continue to function, sense the crash, and command deployment of the airbags, if necessary. If the ignition switch moves out of the "run" position before a crash event has begun, and therefore before the airbag sensing algorithm has been activated, the SDM detects the vehicle is in "off" or "accessory" and disables the sensing algorithm. If the switch moves out of "run" momentarily, the sensing algorithm will reinitialize and again be available to command deployment of the airbags within three seconds.

4. Separately for each model and model year vehicle included within this recall state the number of each of the following received by GM, or of which GM is otherwise aware, which relate or may relate to the defect:

- a. The number of consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality;
- d. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
- e. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts “a” through “c,” 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 (*e.g.*, 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). Provide the information in a Microsoft Excel file titled “REQUEST NUMBER FOUR.”

Response:

On April 3, 2014, GM submitted to NHTSA a revised list of lawsuits, NISMs, incidents without claims, and customer complaints, identified as involving frontal impact crashes in which the recall condition may have caused or contributed to the airbags’ non-deployment. GM has also submitted the following:

- A complaint from a lawsuit (GM File #778295) associated with the same incident as the Rademaker NISM;
- A NISM file (GM File #635571) associated with the same incident as the Erica Lambert lawsuit; and

- A NHTSA Special Crash Investigations (“SCI”) Report.<sup>3</sup>

These documents have been produced to NHTSA at GMNHTSA000299290-9311, GMNHTSA000292899-2983 and GMNHTSA000261797-832.

The SCI Report relates to an April 2009 incident in Pennsylvania involving 2 fatalities of unidentified front-seat passengers. To date, GM has not identified a lawsuit or NISM that relates to the incident and fatalities described in this report.

As of the date of this submission, GM is not aware of any relevant third-party arbitration proceedings.

The following table revises the April 3, 2014 submission regarding Request No. 4(c) and 4(e):

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2003	Saturn	Ion	0	0
2004	Saturn	Ion	4	4
2005	Saturn	Ion	2	2
2005	Chevrolet	Cobalt	13	3
2006	Saturn	Ion	3	0
2006	Chevrolet	Cobalt	8	0
2006	Chevrolet	HHR	1	0
2006	Pontiac	Solstice	0	0

<sup>3</sup> The full title of this report is: “Office of Defects Investigation, Calspan On-Site Air Bag Non-Deployment Fatal Crash Investigation, SCI Case No: CA09022.”

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2007	Saturn	Ion	3	0
2007	Chevrolet	Cobalt	8	0
2007	Chevrolet	HHR	2	0
2007	Saturn	Sky	0	0
2007	Pontiac	G5	3	0
2007	Pontiac	Solstice	0	0

\* The response to Request 4(c) includes NISMs, incidents without claims, customer complaints and a NHTSA SCI Report. It does not include lawsuits.

A Microsoft Excel file with this information titled "REQUEST NUMBER FOUR" is provided with this submission.

5. Separately, for each item within the scope of your response to Request No. 4, state the following information:

- a. GM's file number or other identified used:
- b. The category of the item, as identified in Request No. 4 (e.g., consumer complaint);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle's make, model, and model year;
- e. Vehicle's VIN:
- f. Vehicle's mileage at the time of incident:



- g. Incident date (in “dd/mm/yyyy” date format);
- h. Report or claim date (in “dd/mm/yyyy” date format);
- i. Whether a crash is alleged;
- j. Number of alleged injuries, if any; and
- k. Number of alleged fatalities, if any.

Provide the information in a Microsoft Access file titled “REQUEST NUMBER FIVE.”

Response:

To date, certain lawsuits, NISMs, incidents without claims, and customer complaints have been identified as involving frontal impact crashes in which the recall condition may have caused or contributed to the airbags’ non-deployment. A spreadsheet titled “REQUEST NUMBER FIVE” containing the requested information is attached.<sup>4</sup>

GM has revised the attachment titled “REQUEST NUMBER FIVE”. Revisions have been made to address, among other issues: (1) double-counting of a fatality that is reflected in two lawsuits that relate to the same incident, (2) exclusion of injuries

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<sup>4</sup> As noted in GM’s April 3, 2014 response, the following exceptions apply:

- As relates to 5(c), GM has not yet been able to verify the vehicle owner and contact information. GM has included the name of the individual involved in the crash, who may be the owner.
- As relates to 5(f), GM has been able to identify the mileage for some, but not all of the vehicles related to these matters.
- As relates to 5(h) and the “report or claim date,” GM has identified the date on which the matter was opened at GM.

and fatalities to passengers in the backseat of the subject vehicles<sup>5</sup>, and (3) the identification of additional incidents in which the recall condition may have caused or contributed to the airbags' non-deployment.

Specifically, the following revisions have been made to the "REQUEST NUMBER FIVE" attachment submitted on April 3, 2014:

- A new entry has been added for the NHTSA Special Crash Investigations ("SCI") Report referenced in GM's above response to Request No. 4. The SCI Report relates to an April 2009 incident in Pennsylvania involving 2 fatalities of unidentified front-seat passengers. To date, GM has not identified a lawsuit or NISM that relates to the incident and fatalities described in this report.
- The entry regarding the number of fatalities reported for the Rademaker incident without claim (GM File #624620) has been revised from 2 fatalities to 1 fatality.<sup>6</sup>
- The entry regarding the number of fatalities reported for the Anderson lawsuit (GM File #489548) has been revised from 1 fatality to 0 fatalities. Both the Anderson and the Erickson (GM File #624610) lawsuits relate to the same November 15, 2004 incident. This incident involved a total of 1 injury and 1 fatality to front passengers in the subject 2004 Saturn Ion. The April 3, 2014 submission incorrectly reported 1 fatality for the Anderson lawsuit and 1 fatality for the Erickson lawsuit (*i.e.* 2 total fatalities).

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<sup>5</sup> As noted in GM's prior submissions, including GM's February 24, 2014, and March 11, 2014 part 573 letters, the numbers of injuries and fatalities reported relate to frontal occupants, and do not include injuries or fatalities of passengers in the backseat. The "REQUEST NUMBER FIVE" attachment submitted on April 3, 2014 incorrectly counted injuries and fatalities to passengers in the backseat for certain incidents.

<sup>6</sup> A lawsuit has been filed with respect to the October 24, 2006 incident previously reported as the Rademaker incident without claim. The lawsuit is captioned *Jayne Rimer et. al. vs. General Motors LLC et. al.* Accordingly, the entry for the Rademaker incident without claim in the "REQUEST NUMBER FIVE" attachment has been changed to the Jayne Rimer lawsuit (GM File #778295).

- The entry regarding the number of injuries and fatalities reported for the Nealon customer complaint (GM File #665487504) has been revised to reflect 1 injury and 0 fatalities, respectively. The April 3, 2014 submission incorrectly reported 0 injuries and 1 fatality associated with this incident.
- A new entry has been added for a NISM (Fourcade, GM File #635571) which involves 1 injury that relates to the June 25, 2006 incident also underlying the Erica Lambert lawsuit (GM File #513096).
- The entry regarding the number of injuries reported for the Towne lawsuit (GM File #511176) has been revised from 2 injuries to 0 injuries.
- The entry regarding the number of injuries reported for the Colbert NISM (GM File #504880) has been revised from 1 injury to 2 injuries.
- The entry regarding the number of injuries reported for the McCormick NISM (GM File #636480) has been revised from 2 injuries to 1 injury.
- The entry regarding the number of injuries reported for the Tonya Lambert lawsuit (GM File #682178) has been revised from 4 injuries to 2 injuries.
- The entry regarding the number of injuries reported for the Spradlin NISM (GM File #658604) has been revised from 3 injuries to 2 injuries.
- The GM File Number for the Dubuc-Marquis incident without claim has been updated. The GM File Number is 776962.
- The vehicle mileage has been added for certain incidents, and revised with respect to the Gathe NISM (GM File #638575) and the Jefferson customer complaint (GM File #1182698557).

6. Provide copies of all documents related to each item within the scope of Request No. 4. Organize the documents separately by category (*e.g.*, consumer complaints, field reports, etc.) and in chronological order. These documents should include, but not be limited to, documentation of the 23 frontal-impact crashes identified in GM's chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report.

Response:

GM has produced materials relating to certain lawsuits, NISMs, incidents without claims, and customer complaints, identified as involving frontal-impact crashes in which the recall condition may have caused or contributed to the airbags' non-deployment. (GMNHTSA000200564-218054; GMNHTSA000198612-623; GMNHTSA000149621-97570; GMNHTSA000253372-57776; GMNHTSA000292899-2983; GMNHTSA000293110-3764; and GMNHTSA000294758-0316136.)

7. For each lawsuit within the scope of Request No. 4. state the outcome of the lawsuit as to GM.

Response:

The outcome of each lawsuit referenced in response to Request No. 4 is provided below.

1. *Towne v. General Motors Corp., et al.*, Civil Action No. 06-CE-CG-00759 (Cal. Super. Ct., Fresno County) (GM file #511176) - ended with a "Confidential Settlement Agreement and General Release of All Claims," dated March 16, 2007.
2. *Tonya Lambert v. General Motors Corp., et al.*, Civil Action No. 11-C- 464-1 (W. Va. Cir. Ct., Harrison County) (GM file #682178) - ended with a "Confidential Settlement Agreement and Release," dated August 20, 2012.
3. *Gemmill v. Heritage Saturn, et al.*, Civil Action No. 03C06011923 (Md. Cir. Ct., Baltimore County) (GM file #511258) - ended with a "Confidential Release, Settlement and Indemnity Agreement," dated October 9, 2007.
4. *Frei v. General Motors Corp., et al.*, Civil Action No. 2008-11271-31-2 (Pa. Ct. C.P., Bucks County) (GM file #633669) - ended with a "Release and Indemnification of All Claims," dated August 22, 2008.
5. *Erickson v. General Motors Corp., et al.*, Civil Action No. 06-00846 (Tex. Dist. Ct., Van Zandt County) *removed*, Civil Action No. 6:07-cv-13 (E.D.

Tex.) (GM file #624610) - ended with a “Confidential Settlement Agreement and Complete Release,” dated July 22, 2008.

6. *Anderson v. General Motors Corp., et al.*, Civil Action No. 06-00874 (Tex. Dist. Ct., Van Zandt County) (GM file #489548) - ended with a “Confidential Settlement Agreement and Complete Release,” dated April 14, 2008.
7. *Truttmann v. General Motors Corp., et al.*, Civil Action No. 06L208 (Ill. Cir. Ct., St. Clair County) (GM file #509836) - stayed during GM’s bankruptcy in response to GM’s Notice of Stay, dated June 15, 2009. GM was not a party to any settlement agreement in this lawsuit.
8. *Erica Lambert v. General Motors Corp.*, Civil Action No. 07-646375 (La. Dist. Ct., Parish of Jefferson), *removed*, Civil Action No. 07-3856 (E.D. La.) (GM file #513096) - ended with a “Receipt, Release and Indemnification Agreement,” dated December 31, 2007.
9. *Jayne Rimer, et al. v. General Motors Corp., et al.*, Civil Action No. 27-cv-14-4022 (Minn. Dist. Ct., County of Hennepin) (GM file #778295) – currently pending.

8. For each lawsuit within the scope of Request No. 4, provide a copy of the complaint (or most recent amended complaint which names GM).

Response:

GM has produced the complaints, amended complaints, or petitions regarding the following lawsuits:

1. *Towne* (GM file #511176) (GMNHTSA000196280-296);
2. *Tonya Lambert* (GM file #682178) (GMNHTSA000196627-638 and GMNHTSA000196651-56);
3. *Gemmill* (GM file #511258) (GMNHTSA000196679-692);
4. *Frei* (GM file #633669) (GMNHTSA000197564-570 and GMNHTSA000197545-552);
5. *Erickson* (GM file #624610) (GMNHTSA000197458-469 and GMNHTSA000197470-480);

6. *Anderson* (GM file #489548) (GMNHTSA000196401-05 and GMNHTSA000196428-439);
7. *Truttmann* (GM file #509836) (GMNHTSA000253382-87);
8. *Erica Lambert* (GM file #513096) (GMNHTSA000254103-08); and
9. *Rimer* (GM file #778295) (GMNHTSA000299290-9311).

9. For each lawsuit within the scope of Request No. 4, provide a copy of each transcript of a deposition testimony by any GM employee, former GM employee, consultant, or expert witness.

Response:

GM has not identified any transcripts of deposition testimony by GM employees, former GM employees, consultants or expert witnesses for the lawsuits within the scope of Request No. 4.

10. For each lawsuit within the scope of Request No. 4, provide a copy of each transcript of trial or hearing testimony by any GM employee, former GM employee, GM consultant, or GM expert witness.

Response:

GM has not identified any trial or hearing testimony by GM employees, former GM employees, GM consultants, or GM expert witnesses for the lawsuits within the scope of Request No. 4.

11. For each lawsuit within the scope of Request No. 4, provide a copy of any affidavit or declaration by any GM employee, former GM employee, GM consultant, or GM expert witness submitted to the court.

Response:

GM has not identified any affidavits or declarations by GM employees, former GM employees, GM consultants, or GM expert witnesses in the lawsuits within the scope of Request No. 4.

12. For each lawsuit within the scope of Request No. 4, provide a copy of any expert witness report by a GM expert witness.

Response:

GM has produced copies of expert witness reports by GM expert witnesses for the following lawsuits: *Anderson* (GM file #489548) (GMNHTSA000196440-6517) and *Gemmill* (GM file #511258) (GMNHTSA000196879-6911). GM has not identified copies of expert reports by GM expert witnesses in any of the other lawsuits within the scope of Request No. 4.

13. For each lawsuit within the scope of Request No. 4, provide a copy of any judgment and opinion in the case, which relates to final disposition of the case as to GM.

Response:

GM has not identified any judgments or opinions in the lawsuits identified in response to Request No. 4, in which a finding of liability was made against GM. All of the lawsuits referred to in Request No. 7, except one which is currently pending, were resolved by settlement or were stayed by the bankruptcy court. GM has identified an Agreed Judgment in *Erickson* (GM file #624610). (GMNHTSA000197486-7518.)

14. Identify all communications prior to February 7, 2014 between GM and NHTSA related to the defect condition.

Response:

GM has produced a March 27, 2007 communication attaching an agenda for a March 29, 2007 “NHTSA/GM Quarterly Review” (GMNHTSA000002849-850). GM has conducted further searches for responsive e-mails identified through searching the electronically stored information (“ESI”) of a priority group of individuals considered most likely to have had relevant communications with NHTSA, including: Carmen Benavides; James Churchwell; Brian Everest; Matt Jerinsky; Gay Kent; Michael Robinson; Brian Stouffer; and Doug Wachtel. The results of that review were produced at GMNHTSA000248070-253371, GMNHTSA000258205-263553, and GMNHTSA000263554-271821. (*See also* GMNHTSA000276522-560 (Sept. 23, 2004 “NHTSA/SCI” presentation regarding the “SDM Coverage and CDR Usage Guide”).)



15. Identify all communications prior to February 7, 2014 between GM and NHTSA related to the nondeployment of airbags in subject vehicles.

Response:

Please see GM's Response to Request No. 14.

16. 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 defect: warranty claims; extended warranty claims; claims for good will services that were provided; and warranty claims or repair made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. GM's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. A description of any part removed, including the GM part number if available;
- e. A description of any part installed, including the GM part number if available;
- f. Repair/service date (in "dd/mm/yyyy" date format);
- g. Vehicle mileage at time of repair;
- h. Repairing/servicing dealer's or facility's name, telephone number, city and state or ZIP code;
- i. Problem code;

- j. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim, repair and/or service.

Provide the summary warranty data in a Microsoft Excel file titled "SUMMARY WARRANTY DATA." Provide the warranty data in a Microsoft Access file titled "WARRANTY DATA."

Response:

GM has produced warranty data for claims involving airbags, ignition switches, and stalls applicable to model year 2003-2007 Saturn Ion, model year 2006-2007 Chevrolet HHR, model year 2006-2007 Pontiac Solstice, model year 2007 Saturn Sky, model year 2005-2007 Chevrolet Cobalt and model year 2007 Pontiac G5 vehicles. (GMNHTSA000200556-563; GMNHTSA000218120-131; GMNHTSA000218137-141; and GMNHTSA000229028-032.)

GM also has submitted reference documents that: describe the Labor Codes, Trouble Codes, and Customer Codes that are available for searching; show how warranty claims are grouped into related "buckets" of data; and describe the field names and descriptions in the data repository that are used, with other business logic, to create the reporting columns (GMNHTSA000200551-55).

GM's warranty data typically includes the following categories of information relating to each claim:

- Vehicle Identification Number ("VIN")
- Model
- Model year

- Odometer reading at the time of service
- Part number for the part determined by dealer to be the cause of customer complaint
- Customer code (identifying the type of customer complaint)
- Trouble code (identifying what the service technician found to be the cause of customer complaint)
- Labor code (identifying the specific type of service performed)
- Repair Order number
- Date of Repair Order
- Description of cause of the issue
- Customer description of issue
- Description of correction
- Labor cost of repair
- Part cost
- Total claim cost
- Date the vehicle went into service (commonly the date the vehicle was sold)
- Vehicle production date
- Dealer of record
- City, state, country, and phone number of repair dealer

GM also has produced additional warranty data that it previously submitted to the House Energy and Commerce Committee in response to its requests (GMNHTSA000316296-6311). This data relates to model years outside the scope of the March 4, 2014 Special Order and thus is not responsive to a particular request. This set of produced data includes the following:

- airbag and ignition switch warranty claim data for model year 2008-2010 Cobalt, model year 2008-2011 HHR, model year 2008-2010 Solstice, model year 2008-2010 G5, and model year 2008-2010 Sky vehicles, that mirrors the BOM row and Labor Code search results GM previously produced for the 2003-2007 model year recall population;
- warranty claim data for the model year 2008-2010 Cobalt, model year 2008-2011 HHR, model year 2008-2010 Solstice, model year 2008-2010 G5, and model year 2008-2010 Sky vehicles relating to ignition switch parts, exclusive of the labor codes and BOM row searched; and
- warranty data for the model year 2008-2010 Cobalt, model year 2008-2011 HHR, model year 2008-2010 Solstice, model year 2008-2010 G5, and model year 2008-2010 Sky vehicles that reflects the labor codes dealers have been authorized to use for Product Assistance Claims. These codes are not specific to any given component or product allegation. GM is continuing to evaluate warranty data and will have additional productions of warranty data in the future.

A Microsoft Access file titled “WARRANTY DATA” that includes the warranty data listed above is being produced with this submission. Today, GM also is producing a Microsoft Excel file titled “SUMMARY WARRANTY DATA,” which summarizes the warranty claims, by model and model year. Because the search methodology used to identify this warranty data does not reflect the recall condition,

the quantity of claims reflected in these documents is substantially greater than the number of claims related to the recall condition.

17. Provide all documents GM reviewed in preparation of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report.

Response:

In preparing the chronology submitted to NHTSA on February 24, 2014, outside counsel retained by GM reviewed materials including, but not limited to the following: (1) Problem Resolution Tracking System ("PRTS") reports and Field Performance Reports ("FPR") (GMNHTSA000000003-01990); (2) Service Bulletins (GMNHTSA000000001-02 and GMNHTSA000001991-02687); (3) certain news articles (GMNHTSA000197578-581); (4) documents relating to the FPE process (GMNHTSA000002735-2822); (5) documents relating to the 2009 and 2007 meetings with Continental representatives (GMNHTSA000002824-848, GMNHTSA000248070-253371, GMNHTSA000263554-271821, and GMNHTSA000258205-263553); (6) "Red X" and "Design For Six Sigma" documents (GMNHTSA000002688-2734); (7) documents from the *Melton* litigation (GMNHTSA000002904-0197570); (8) the file maintained by the GM investigating engineer who in 2007 was "tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy, in order to try to identify common characteristics of these crashes" (GMNHTSA000246684-48069); (9) the investigative file of the Field Performance Assessment Engineer assigned in August 2011 (GMNHTSA000246684-48069); (10) Executive Field Action Decision Committee

(“EFADC”) PowerPoint presentations, which were submitted to NHTSA on March 5, 2014; (11) a PowerPoint presentation prepared by an outside engineer retained by GM in 2013 (GMNHTSA000002853-877); (12) documents relating to an October 29, 2013 e-mail exchange between GM and its supplier (GMNHTSA000002881-2903); (13) a General Motors Commodity Validation Sign Off, dated April 26, 2006, approving an ignition switch part change (GMNHTSA000002896-98); and (14) a cover e-mail and attached agenda for March 29, 2007 meeting between GM and NHTSA (GMNHTSA000002849-850).

18. For each Problem Resolution Tracking System (“PRTS”) inquiry addressed by GM’s chronology (Attachment B) included in its February 24, 2014 Part 573 Report, identify each of the individuals involved in the PRTS inquiry.

Response:

In this and all following tables, the identified individuals are or were GM employees unless otherwise noted.

The following individuals were involved in the PRTS inquiries:

Name	Title
<b>PRTS N151929 (Cobalt, originated January 13, 2004)</b>	
Frank Bell	Warranty & Vehicle Assembly Cross Platform
Iulian Ciotlos	Engineering Tech
Yvonne Cummings	Quality Control Coordinator
Ray DeGiorgio	Design Release Engineer
Mark A. Foster	GMNA Employee
William Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Kathy Macko	Senior Quality Systems Engineer – Analyst
Keith Mikkelson	Vehicle Service Engineer
Vira Mourouvapin	Design Engineer

<b>Name</b>	<b>Title</b>
Robert Pizzuti	Electronics Manager; Program Manager / Hardware Engineer
Stephen G. Rehbine	Warranty Specialist, Saturn Service Engineering
Tracy Rusin	Administrative Assistant 1
Sharon Schroeder	GMNA Plan, Program Management Technical Center
Bill Skelton	Engineering Group Manager
Stephane Thery	Software Engineer
Ted Turvene	Quality Manager
Robert C. Wittmann	Team Leader Current Vehicle Information Engineer
Daniel Wood	Supplier Quality, Spring Hill
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Gary F. Altman	Program Engineering Manager
Nancy Burder	US/GM/GMC
Paul Coliadis	Engineer Group Manager
Ray DeGiorgio	Design Release Engineer
Sarah Devries	Vehicle Line Director – Small Cars
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Joseph Joshua	Designing Engineer
Dennis L. Korinek	Senior Quality Systems Engineer – PRTS + Systems
Doug Parks	Chief Engineer (at the time of the 2005 Cobalt vehicle launch)
Lori Queen	Former GM Vehicle Line Executive – Small Cars
Walt J. Rokicki	Launch Manager/Quality Operations Manager
Scott Sherman	Suspension-Steering-Structures & Mounts
Alan Storck	Lead Development Engineer, Milford Proving Ground
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mounts
David Trush	Lead GMNA Lockset Engineer
<b>FPR 9731 (Cobalt, initiated March 9, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS 0793/2005/US (Cobalt, initiated March 9, 2005)</b>	
Chris J. Berube	Staff Engineer
Chris Case	Individual identified in PRTS 0793/2005/US
Rajiv Mehta	Vehicle Architecture Manager
Steven Oakley	Warranty Administrator, US Operations
Tracy Thueme	Program Engineering Manager
Jonathan (Jack) L. Weber	Senior Staff Engineer
<b>FPR 10682 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
William Chase	Warranty Engineer

<b>Name</b>	<b>Title</b>
Paul Coliadis	Engineer Group Manager
Bradford (Brad) I. Cook	Quality Systems Engineer – PRTS + Systems
Sarah Devries	Vehicle Line Director – Small Cars
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures- Body Component-Latching Systems
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering- Structures & Mounts
Joseph Joshua	Designing Engineer
David B. Kepczynski	Body Hardware Components, Door Hardware
Khris Lee	Assistant Staff Engineer
Ralph P. Madison	EIT Manager
Joseph (Joe) Manson	Program Engineering Manager
Al Manzor	Senior Project Engineering Manager for Electrification
Steven Oakley	Warranty Administrator, US Operations
Walt J. Rokicki	Launch Manager/Quality Operations Manager
Craig St. Pierre	Supplier Resident Engineer, Ortech
David Trush	Lead GMNA Lockset Engineer
<b>PRTS 2327/2006/US (Cobalt, initiated August 1, 2006)</b>	
Rob Martin	Individual identified in PRTS 2327/2006/US
David (Dave) Peacy	Vehicle Sales Service & Marketing (VSSM)
Eric Walker	Field Service Engineer, Saturn Service Engineering
<b>PRTS 1078137 (Cobalt, initiated February 4, 2009)</b>	
Mark Alty	Change Management Manager
Joe Baaki	Global Product Development, Purchasing and Supply Chain
William Chase	Warranty Engineer
Paul Coliadis	Engineer Group Manager
Brad I. Cook	Quality Systems Engineer – PRTS + Systems
Yvonne Cummings	Quality Control Coordinator
John Dobish	Global Vehicle Systems and Integration
Darren Ford	Global Quality Continuous Improvement
Jamayca Henderson	Global Engineering Work Order Implementation Change Management Coordinator
Chuck Kellogg	Program Warranty Engineer
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Mary Kinney	Change Management Coordinator
Kathy Macko	Senior Quality Systems Engineer – Analyst
Gregory Schone	Global Quality Continuous Improvement
Sharon Schroeder	GMNA Program Management Tech Center
Bill Skelton	Engineering Group Manager



Name	Title
David Trush	Lead GMNA Lockset Engineer
Daniel Wood	Supplier Quality, Spring Hill
<b>PRTS 1462/2005/US (Cobalt, initiated May 16, 2005)</b>	
Frank Flees	Senior Administrator
Edward Laskowski	FFS – Engineer 4
Cathy Lounsbury	Senior Pricing/Incentive Analyst
Shannon Moore	FFS Engineer 2B
Steven Oakley	Warranty Administrator, US Operations
Thomas Russell	Vehicle Sales, Service and Marketing
Craig St. Pierre	Supplier Resident Engineer, Ortech

19. Provide a copy of each PRTS report referenced by GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report.

Response:

GM has produced a copy of each PRTS report referenced by GM's chronology included in its February 24, 2014 Part 573 Report. (GMNHTSA000001000-027; GMNHTSA000001028-1193; GMNHTSA000001222-291; GMNHTSA000001727-741; and GMNHTSA000001742-1820).

20. Provide all documents related to the reasons that GM opened and closed the PRTS inquiries referenced by GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report.

Response:

GM has produced copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, and which contain descriptions of the reasons for their opening and closing, as well

as the dates of these events. (GMNHTSA000000003-01990.) Certain of these reports contain other documentation that discusses the reasons for the opening and closing of the reports. For example, PRTS N172404, originated on March 9, 2005, includes an e-mail dated March 9, 2005, describing an instance in which a GM employee observed an ignition shut-off while driving a Cobalt (GMNHTSA000220719-758); PRTS N182276, originated on May 16, 2005, includes excerpts of e-mail communications between September 6, 2006, and September 7, 2006, regarding the closing of the PRTS (GMNHTSA000220543-569); FPR #2568/2003/US, originated August 28, 2003, and PRTS N151929, originated on January 16, 2004, include certain warranty data and technical assistance center records relating to the reasons for opening the inquiries (GMNHTSA000225101-115); FPR #3101/2003/US, originated on October 9, 2003, includes certain warranty data relating to the reasons for opening the FPR (GMNHTSA000325804-812); and Issue No. 1078137, originated on February 4, 2009, stated that the “solution” of “chang[ing] key opening from a slot to a hole” was “effective,” in that “[w]arranty for LOR went down significantly as shown in GART” (GMNHTSA000273715-748).

GM also has produced additional documents responsive to this request, including but not limited to:

- slides titled “X001 Ignition Cylinder Effort . . . Next Actions” referencing PRTS N182276 (GMNHTSA000276650-651);
- a spreadsheet reflecting the status of PRTS inquiries, dated June 2, 2004 (GMNHTSA000279545);

- e-mails in February 2005 regarding “Torque Study ---- X001 Ign Cylinder rotation effort” and attached PowerPoint entitled “GMX001 Lock Module Detent in RUN 20050216” regarding a presentation “that was made at CPIT last week and that will be visited at VAPIR on 3/1” (GMNHTSA000279604-05);
- e-mails and attached agendas in 2009 regarding the “Cobalt CPIT Weekly Agenda” that include agenda items related to the PRTS N1078137 issued in 2009 and the Engineering Work Order #1070202 regarding the re-design of the key from a slot to a hole (GMNHTSA000294508-512 and GMNHTSA000294549-563); and
- March and April 2004 PowerPoint presentation slides related to the PRTS N151929 regarding the Saturn Ion (GMX357) ignition switch (GMNHTSA000294030-041).

21. Did GM perform any work in 2008 related to the defect that is the subject of this recall, including by investigating crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.

Response:

In 2008, GM Legal Staff learned of a number of crashes in which Cobalt, HHR and G5 vehicles were involved in frontal impacts and the airbags did not deploy. In cases where claims or lawsuits were filed, GM attorneys were assigned to these matters, members of the Field Performance Assessment (“FPA”) group prepared

reports known as Early Technical Assessments (“ETA”), and investigators with claims administrator ESIS conducted investigations of the crashes. GM has previously produced documents relating to these crashes. (GMNHTSA000200564-218054 and GMNHTSA000253372-57776.)

Also in 2008, a GM engineer prepared a PowerPoint presentation titled “E7200 Cobalt Warranty reduction” and dated October 16, 2008 (GMNHTSA000001040-048). This PowerPoint presentation includes, among other things, information relating to potential “Solutions to Decrease Cobalt E700 [sic] Warranty,” including “Change Ign Switch to higher detent force.” This PowerPoint presentation is appended to PRTS N1078137. (GMNHTSA000001028-039.)

The following are the individuals who may have performed work in 2008 related to the defect that is the subject of this recall:

<b>Name</b>	<b>Title</b>
Kathy Anderson	Technical Fellow, Field Performance Assessment
Douglas Brown	Legal Staff
Mark Byrd	ESIS Investigator
Leland Coblentz	ESIS Investigator
Dan Derrick	ESIS Investigator
Brian Everest	Senior Consultant Manager, Field Performance Engineer
Ryan Jahr	ESIS Investigator
Hamed Sadmia	Field Performance Assessment Engineer
Jenny Sevigny	Senior Manager, Field Performance Assessment
John Sprague	Field Performance Assessment Engineer
Lisa Stacey	Staff Engineer
David Trush	Lead GMNA Lockset Engineer

22. GM’s chronology (Attachment B) included in its February 24, 2014 Part 573 Report refers to a Field Performance Evaluation Review Committee and Field

Product Evaluation Recommendation Committee, calling both by the acronym “FPERC.” Are these two different committees? If yes, describe the purpose of each committee. If no, explain the reason GM’s chronology uses two names for this committee.

Response:

GM’s chronology included in its February 24, 2014 Part 573 Report inadvertently referred to the Field Performance Evaluation Recommendation Committee (“FPERC”) as the Field Product Evaluation Recommendation Committee and the Field Performance Evaluation Review Committee.

23. Did GM perform any Failure Mode and Effects Analysis that relates or may relate to the defect? If yes, state the beginning and end date of each Failure Mode and Effects Analysis, describe the finding(s) and conclusion(s) of each Failure Mode and Effects Analysis, identify each individual involved with each failure Mode and Effects Analysis, and provide all related documents.

Response:

GM has identified 148 Design Failure Mode and Effects Analyses (DFMEAs) or Design Review Based on Failure Modes (DRBFMs) that may be responsive to this Request. (GMNHTSA100039391-9659.) DFMEAs relate to review and analysis conducted on new parts, while DRBFMs involve review, analysis and evaluation of modifications to existing parts. DFMEAs and DRBFMs generally contain notations on dates, findings and conclusions, and individuals involved.

GM has also produced Delphi's Potential Failure Mode and Effects Analysis reports on the Delta ignition switch for the 2004, 2006, and 2007 model year (GMNHTSA000257943-950; GMNHTSA000406705-709).

24. State each date on which GM's Field Performance Evaluation Review Committee and/or Field Product Evaluation Recommendation Committee ("FPERC") discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Response:

GM is aware of the following occasions on which the FPERC discussed issues relating to the defect:

- December 2, 2013: A meeting was attended by, possibly among others, Carmen Benavides, Maureen Foley-Gardner, Mark Johnson, Bill Kemp, Gay Kent, John Murawa, Brian Stouffer, Doug Wachtel, and Liz Zatina. The attendees discussed the possibility of recommending to the FPERC that a safety recall be issued, and in so doing, discussed prior crashes, fatalities, and available warranty information. At the end of the meeting, the group agreed to recommend a safety recall to FPERC.
- December 16, 2013: An official FPERC meeting was held. The FPERC decided to recommend a safety recall for the Cobalt, and the issue proceeded to the EFADC. The following individuals may have been in attendance at this FPERC meeting: Ken Helfer, Gary Altman, John

Murawa, Bill Kemp, Liz Zatina, Maureen Foley-Gardner, Doug Wachtel, and Carmen Benavides.

25. State each date on which GM's Executive Field Action Decision Committee discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Response:

GM is aware of three occasions on which GM's EFADC discussed issues that relate or may relate to the defect that is the subject of this recall: December 17, 2013, January 31, 2014, and February 24, 2014. GM has produced copies of the briefing materials prepared for these meetings, which relate to the substance of the discussions during these EFADC meetings.

The following individuals may have participated in discussions by GM's EFADC of issues that relate or may relate to the defect that is the subject of this recall:

<b>Name</b>	<b>Title</b>
Carmen Benavides	Director, Product Investigations
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering
Maureen Foley-Gardner	FPE Director
Sherry Hickock	Supplier Quality
Gerald Johnson	Vice President, North American Manufacturing
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Gay Kent	General Director, Vehicle Safety and Crashworthiness
John Murawa	Field Performance Assessment Engineer

Name	Title
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality

26. Is GM's remedy for this recall the same "re-designed ignition switch" that "GM believes that [Delphi Mechatronics] began providing ... to GM at some point during the 2007 model year"? If no, describe each difference between that "re-designed ignition switch" and the replacement ignition switch GM intends to use as its remedy.

Response:

The new ignition switch Delphi began providing to GM during the 2007 model year and then for the model year 2008-2010 Chevrolet Cobalt and Pontiac G5, is the same ignition switch that is being used for the recall. The parts make-up for the ignition switch being used for the recall, including the spring, plunger, housing, grease, and rotor are the same as those used for the re-designed ignition switch Delphi began providing to GM at some point during the 2007 model year.

The circuit board for the ignition switch being used for the recall is being provided by a different manufacturer because Delphi no longer does business with the supplier that provided the circuit board for the re-designed switch that first was used at some point during the 2007 model year. The design for the circuit board, however, has not changed. While the parts make-up is the same, the part number for the ignition switch has changed.

GM's end-of-line testing for the ignition switch also has changed. This testing now is more stringent, and GM requires a verification of every ignition switch to six



parameters. (See GMNHTSA000284218-220 (February 21, 2014 e-mail regarding the validation plan for Cobalt ignition switches).)

27. According to a press release regarding this recall that GM submitted to NHTSA, GM North America President Alan Batey said that GM's "process employed to examine this phenomenon was not as robust as it should have been." Describe in detail the ways in which GM's process "was not as robust as it should have been" and GM's plans (if any) to change its process.

Response:

Alan Batey expressed an opinion based on the facts then known to him about the process leading up to the initial recall. His statement was not based on any comprehensive investigation or analysis of the process used to examine the ignition switch torque performance condition after field reports were received by GM. Since the time of Mr. Batey's statement, however, GM has commissioned a comprehensive investigation of the events that led to the ignition switch recall and has instituted a number of changes and initiatives, including:

1. Creating and filling the position of Vice President, Global Vehicle Safety. This officer will have global responsibility for the safety development of GM vehicle systems, confirmation and validation of safety performance, as well as post-sale safety activities, including recalls;
2. Creating the "Speak Up For Safety" program, which will recognize employees for (a) ideas that make vehicles safer, and (b) "speaking up" if they see an issue that might affect customer safety;

3. Broadening the global engineering requirement of Design for Six Sigma certification. This will help the company better understand customer needs, focus on determining the root causes of customer issues, and focus on how to best resolve those issues; and
4. Announcing the creation of a new Global Product Integrity organization within Global Product Development, which will focus on safety performance.

28. To the extent not otherwise provided in response to a specific request, provide all documents reviewed in preparation of the responses to this March 4, 2014 Special Order, or that otherwise support GM's responses to this March 4, 2014 Special Order.

Response:

GM has produced all responsive, non-privileged information identified to date that was reviewed in preparation for the responses to the March 4, 2014 Special Order, or that otherwise support GM's response to the March 4, 2014 Special Order. To date, GM has produced more than 113 GB of data, including approximately 49,000 documents (more than 407,000 pages).

**The following requests relate to the 2004 portion of GM's chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report:**

29. On what date(s) did "GM learn[ ] of at least one incident in which a Cobalt lost engine power because the key moved out of the 'run' position when the

driver inadvertently contacted the key or steering column.” Provide all related documents.

Response:

GM learned no later than November 2004 of at least one incident in which a Cobalt lost engine power because the key moved out of the “run” position when the driver inadvertently contacted the key or steering column, when GM first reported in PRTS N172404 an incident that occurred on October 29, 2004. (GMNHTSA000001727-738.) GM employees may have learned of an incident as early as late summer 2004, from a reporter during a press event regarding the release of the Cobalt.

30. Provide all documents related to the referenced incident or incidents “in which a Cobalt lost engine power because the key moved out of the ‘run’ position when the driver inadvertently contacted the key or steering column.”

Response:

GM has produced documents related to incidents “in which a Cobalt lost engine power because the key moved out of the ‘run’ position when the driver inadvertently contacted the key or steering column,” including, but not limited to: GMNHTSA000001727-738 (PRTS N172404, originated on November 19, 2004); and GMNHTSA000285059 (TREAD “Summary Data Analysis” reflecting records related to stalls when the “ignition key is struck in some manner”).

31. On what date(s) were “GM employees[ ] able to replicate this phenomenon during test drives”? State the total number of times “GM employees were able to replicate this phenomenon during test drives,” identify each of the individuals involved in this work, and provide all related documents.

Response:

This response relates to the 2004 portion of GM’s chronology.

In 2004, Gary Altman and Alan Storck sought to replicate the phenomenon of a Cobalt losing power. (GMNHTSA000001727-738 (November 2004 PRTS N172404).) Also in 2004, Chris Berube and John Heinrich performed work to attempt to replicate the phenomenon of a Cobalt losing power. (GMNHTSA000329908-09 (November 22, 2004 e-mail regarding Cobalt track maneuvers at Milford Proving Grounds).)

In March 2005, GM employees performed work to attempt to replicate the phenomenon of a Cobalt losing power because the key moved out of the “run” position when the driver inadvertently contacted the key or steering column. (GMNHTSA000276884-87 (document regarding Cobalt test drives by a GM employee); GMNHTSA000278066 (spreadsheet regarding ignition switch testing); GMNHTSA000220719-758 (FPR No. 0793/2005/US including e-mail regarding Cobalt test drives by a GM employee).) The FPR No. 0793/2005/US includes an e-mail from an employee named Jonathan Weber discussing the attempt to replicate the loss of power. In addition, Gay Kent and Doug Wachtel also attempted to replicate the phenomenon of a Cobalt losing power.

GM has not been able to identify the names of other employees who were involved with the work referenced in the 2004 PRTS N172404 and the FPR No. 0793/2005/US.

32. On what date did GM open the referenced PRTS inquiry? On what date did GM close the referenced PRTS inquiry?

Response:

GM originated PRTS N172404 on November 19, 2004, and closed it on January 7, 2005. (GMNHTSA000001727-738.)

33. Describe each of the referenced “potential solutions” that GM considered, including the “lead time required, costs, and effectiveness” of each of the solutions. Provide all related documents.

Response:

GM has produced numerous documents responsive to this request, including but not limited to the following:

- copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. (GMNHTSA000000003-01990.) PRTS N172404, includes discussions of each of the referenced “potential solutions” considered, including the “lead time required, costs, and effectiveness” of each of the solutions. This PRTS report also includes numerous embedded Microsoft Word and PowerPoint documents, which further address these topics.

- a February 2005 presentation entitled “GMX001 Lock Module Detent in RUN.” (GMNHTSA000276572-580.)
- documents Bates labeled GMNHTSA000316312-327852, which include November 2012 e-mail communications regarding “a potential hardware solution to the Cobalt airbag issue.” (GMNHTSA000321243-44.)
- PRTS N172404 and the attachments thereto (GMNHTSA000220387-0425), which include, specifically, the PowerPoint presentations provided to the Cobalt CPIT and VAPIR teams in January – February 2005 (“GMX001 Lock Module Detent in RUN 20050216” and “VAPIR GMX001 Lock Module Detent in RUN 20050301”); and the PowerPoint presentation entitled “X001 Ignition Cylinder 060905.” (GMNHTSA000218772-77.)

GM is aware that the following potential solutions were considered:

- changes in the ignition switch, lock housing, or steering column to strengthen the detents, including adding a second detent. This option would require adding a second plunger, and there was insufficient room in the ignition switch as designed to add a second plunger. In addition, adding detents to the ignition switch would have involved a long lead-time and a high tooling cost.
- increasing the strength of the spring in the plunger: This option was determined to require a strengthened detent as well, or the stronger spring would destroy the detent.

- changing the key design from a “slot” to a “hole”: Certain GM personnel estimated that this option would have cost approximately \$70,000 for re-tooling and \$400,000 to change the part. Those personnel also estimated that it would have taken approximately 20 weeks in tool lead time and approximately 12 weeks to test and approve the new key design. In addition, this option was not seen as a complete fix.
- providing customers a key insert to convert the key from a slot design to a hole design.
- changing the ignition cylinder: this option would have taken several months to implement and could not be implemented until model year 2008 (approximately June-July 2007).
- making the key ring smaller so that no key chain could be attached.
- changing from a low mount to a high mount lock module: This option was not seen as a complete fix because it would reduce the casing around the parts and would not be durable.
- increasing the torque necessary to move the ignition switch from run to accessory.
- several proposals to modify the ignition switch, including implementing the ignition switch used on other GM vehicles in the Cobalt (including the Equinox).
- modifying or adding a detent to the lock module cam shaft.
- adding a detent to the lock-cylinder housing interface at RUN.

- providing no key fob.
- putting a tray under the key chain to prevent the driver's knee from hitting it.
- changing the angle of the key to decrease the likelihood of the driver's knee contacting the key.

**The following requests relate to statements made by GM in the 2005 portion of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report:**

34. On what date(s) did "GM employees receive new field reports of Cobalts losing engine power"? For each field report, state whether it involved movement of the key "out of the 'run' position when a drive inadvertently contacted the key or steering column." Provide all related documents.

Response:

The following documents responsive to this request have been identified and produced to date:

- FPR No. 0793/2005/US, originated on March 9, 2005: a GM employee reported that a Cobalt had lost engine power while driving. (GMNHTSA000001000-08.)
- PRTS N182276, originated on May 16, 2005: a "customer concern that the vehicle ignition will turn off while driving" was reported. (GMNHTSA000001742-754.)



- TREAD “Summary Data Analysis”: reflecting records related to stalls when the “ignition key is struck in some manner.” (GMNHTSA000285059.)

35. On what date(s) did GM open “[f]urther PRTS’s . . . to re-assess this issue”? On what dates were each of those PRTSs closed?

Response:

On March 9, 2005, GM opened PRTS 0793/2005/US and closed that PRTS that same day. (GMNHTSA000001000-08.) On May 16, 2005, GM opened PRTS N182276 to re-assess the issue and closed that PRTS on May 24, 2005. (GMNHTSA000001742-754.)

36. On what date was the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” approved?

Response:

According to PRTS 0793/2005/US, the Engineering Work Order reflecting the proposal to redesign the key head from a “slotted” to a “hole” configuration was approved on June 27, 2005. (GMNHTSA000001000-08.)

37. On what date was the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” cancelled?

Response:

According to PRTS N182276, the Engineering Work Order for the proposal that GM redesign the key head from a slotted to a hole configuration “was cancelled back in March of 2006.” (GMNHTSA000001742-754.)

38. Why was the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” approved?

Response:

GM has produced numerous documents responsive to this request, including but not limited to the following: On March 25, 2014, GM produced copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. (GMNHTSA000000003-01990.) Specifically, PRTS N182276, originated on May 16, 2005, includes discussions of the proposal to redesign the key head from a “slotted” to a “hole” configuration.

PRTS N172404 was reopened as PRTS N182276 due to customer complaints that the vehicle ignition turned off while driving. In connection with PRTS N182276, an Engineering Work Order was issued to change the key to a hole from a slot and to add a small key ring to the key. The change was approved on June 27, 2005, and the target implementation date was set for October 27, 2005.

39. Why was the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” cancelled?

Response:

GM understands that the plan to redesign the key head from a “slotted” to a “hole” configuration was not implemented because GM was experiencing significant quality problems with its key and ignition cylinder supplier, Ortech. In 2005, Ortech was having difficulty with the tools it used to create certain components of the ignition cylinder. Due to these quality issues, GM prioritized Engineering Work Orders related to the ignition cylinder tumblers over the Engineering Work Order related to the key head redesign.

40. Provide all documents related to the reasons that the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” was approved.

Response:

GM has produced numerous documents responsive to this request, including but not limited to the following:

- copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. (GMNHTSA000000003-01990.) Specifically, PRTS N182276, originated on May 16, 2005, includes discussions of the proposal to redesign the key head from a “slotted” to a “hole” configuration.
- an October 16, 2008, PowerPoint presentation entitled “E7200 Cobalt Warranty [R]eduction” discusses solutions to decrease Cobalt warranty claims which included the options of changing the ignition switch to a

higher detent force and changing the key from a slot to a hole.  
(GMNHTSA000285711-17.)

- 2009 e-mails and attachments regarding the “Cobalt CPIT Team” and “Cobalt CPIT Weekly Agenda” that include agenda items related to PRTS N1078137 issued in 2009 and the Engineering Work Order #1070202 regarding the re-design of the key from a slot to a hole.  
(GMNHTSA000294508-512; GMNHTSA000294549-563.)

41. Provide all documents related to the reasons that the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” was cancelled.

Response:

GM has produced numerous documents responsive to this request, including but not limited to, the following: On March 25, 2014, GM produced copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. (GMNHTSA000000003-01990.) Specifically, PRTS N182276, originated on May 16, 2005, includes discussions of the proposal to redesign the key head from a “slotted” to a “hole” configuration, including e-mail communications dated September 6, 2006, and September 7, 2006.

42. Identify all individuals involved with the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration,” including by identifying those individuals who made the decision to approve and cancel the redesign.

Response:

The following individuals may have been involved with the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration,” including by identifying those individuals who may have made the decision to approve and cancel the redesign:

<b>Name</b>	<b>Title</b>
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Gary F. Altman	Program Engineering Manager
Nancy Burder	US/GM/GMC
Paul Coliadis	Engineer Group Manager
Ray DeGiorgio	Design Release Engineer
Sarah Devries	Vehicle Line Director – Small Cars
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Dennis L. Korinek	Senior Quality Systems Engineer-PRTS+Systems
Walt J. Rokicki	Launch Manager/Quality Operations Manager
Scott Sherman	Suspension-Steering-Structures & Mounts
Alan Storck	Lead Development Engineer, Milford Proving Ground
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mount
David Trush	Lead GMNA Lockset Engineer
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
William Chase	Warranty Engineer
Paul Coliadis	Engineer Group Manager
Bradford (Brad) I. Cook	Quality Systems Engineer –PRTS+Systems
Sarah Devries	Vehicle Line Director – Small Cars
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures- Body Component-Latching Systems
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering- Structures & Mounts
David B. Kepczynski	Body Hardware Components, Door Hardware
Elizabeth Kiihr	Product Investigations

Name	Title
Khris Lee	Assistant Staff Engineer
Ralph P. Madison	EIT Manager
Joseph (Joe) Manson	Program Engineering Manager
Al Manzor	Senior Project Engineering Manager for Electrification
Steven Oakley	Warranty Administrator, US Operations
Craig St. Pierre	Supplier Resident Engineer, Ortech
Walt J. Rokicki	Launch Manager/Quality Operations Manager
David Trush	Lead GMNA Lockset Engineer

43. On what date did GM first issue Information Service Bulletin 05-02-35-2007?

Response:

GM first issued Information Service Bulletin 05-02-35-007 in December 2005.

44. Provide a copy of Information Service Bulletin 05-02-35-2007.

Response:

GM produced Information Service Bulletin 05-02-35-007 to NHTSA on March 25, 2014 (GMNHTSA000000001).

45. Provide all documents related to the reasons that GM issued Information Service Bulletin 05-02-35-2007.

Response:

GM has produced numerous documents responsive to this request (GMNHTSA000316137-6295; GMNHTSA000316245-276), including but not limited to the following:

- copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014 (GMNHTSA000000003-01990). Specifically, PRTS N182276, originated on May 16, 2005, includes references to a “solution” of “[k]ey ring slot in key changed to hole and use of a 13mm key ring,” both of which are reflected in Information Service Bulletin 05-02-35-007. GM also produced records relating to the Service Bulletin issued in 2005 (GMNHTSA000316245-276); and
- a Preliminary Information bulletin dated October 10, 2005, and titled “Engine Stalls, Loss of Electrical Systems and No DTC’s (Updated): Keywords: DTC Driver Engine Intermittent Int Ignition Insert IPC Key L61 Loss LSJ No Phantom Power Ring Stall Switch WOW.” (GMNHTSA000002401-02.) The Preliminary Information bulletin also states the following “Condition/Concern: The engine may stall while driving intermittently, and some customers may notice the loss of electrical systems.” There is also a Bulletin Request Form, the second page of which includes the following text: “Complaint: There is a potential for the driver to inadvertently turn off the ignition key due to low key cylinder effort. Customer complaint could be engine stalls, loss of electrical system with no DTCs found” (GMNHTSA000316143-156; *see* GMNHTSA000316245-276).

46. On what date did GM first replace the “previous key ring . . . with a smaller, 13 mm design”?

Response:

In December 2005, GM issued Information Service Bulletin 05-02-35-007. Among other things, the Service Bulletin stated: “Engineering has come up with an insert for the key ring so that it goes from a ‘slot’ design to a ‘hole’ design. As a result, the key ring cannot move up and down in the slot any longer – it can only rotate on the hole.” The Service Bulletin further stated that, “[i]n addition, the previous key ring has been replaced with a smaller, 13 mm design. This will result in the keys not hanging as low as in the past.” The Service Bulletin also referenced part number 15842334, which included a “smaller, 13 mm” key ring.

47. Identify all individuals involved with GM’s replacement of the “previous key ring . . . with a smaller, 13 mm design.”

Response:

The following individuals may have performed work related to GM’s replacement of the “previous key ring . . . with a smaller, 13 mm design”:

<b>Name</b>	<b>Title</b>
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
William Chase	Warranty Engineer
Paul Coliadis	Engineer Group Manager
Bradford (Brad) I. Cook	Quality Systems Engineer –PRTS+Systems
Sarah Devries	Vehicle Line Director – Small Cars
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures- Body Component-Latching Systems
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering- Structures & Mounts
David B. Kepczynski	Body Hardware Components, Door Hardware
Elizabeth Kiihr	Product Investigations
Khris Lee	Assistant Staff Engineer



Name	Title
Ralph P. Madison	EIT Manager
Joseph (Joe) Manson	Program Engineering Manager
Al Manzor	Senior Project Engineering Manager for Electrification
Steven Oakley	Warranty Administrator, US Operations
Craig St. Pierre	Supplier Resident Engineer, Ortech
Walt J. Rokicki	Launch Manager/Quality Operations Manager
David Trush	Lead GMNA Lockset Engineer

48. Provide all documents related to GM's replacement of the "previous key ring . . . with a smaller, 13 mm design."

Response:

GM has produced numerous documents responsive to this request, including but not limited to the following:

- copies of the Service Bulletins referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, which reference a part, number 15842334, the contents of which include a 13 mm key ring. (GMNHTSA000000001-02.)
- PRTS N182276, originated on May 16, 2005, includes references to a "solution" of "[k]ey ring slot in key changed to hole and use of a 13mm key ring," both of which are reflected in Information Service Bulletin 05-02-35-007. (GMNHTSA000000003-01990.)
- documents produced during the course of the *Melton* litigation, including photographs of the aforementioned part number 15842334, including the 13 mm key ring. (GMNHTSA0001430680-0520, at GMNHTSA000143380-81.)

- 2009 e-mails and attachments regarding the “Cobalt CPIT Team” and “Cobalt CPIT Weekly Agenda” that include agenda items related to the PRTS N1078137 issued in 2009 and the Engineering Work Order #1070202 regarding the re-design of the key from a slot to a hole (GMNHTSA000294508-512; GMNHTSA000294549-563).

49. Provide a copy of each referenced newspaper article and any other newspaper articles which address “incidents that pre-dated GM’s issuance of Service Bulletin 05-02-35- 007” or “GM’s public response to inquiries about those incidents.”

Response:

GM previously submitted to NHTSA copies of the newspaper articles referenced in the February 24, 2014 and March 11, 2014 chronologies. (GMNHTSA000197578-581.)

50. Provide all documents related to the statement that “GM concluded in December 2005 that the Service Bulletin and field service campaign was the appropriate response to the reported incidents.”

Response:

GM has produced numerous documents responsive to this request, including but not limited to, the following: On March 25, 2014, GM produced copies of the Service Bulletins referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, which reference part number 15842334, the contents of which include a 13 mm key ring (GMNHTSA000000001-02).

Documents produced during the course of the *Melton* litigation include photographs of the aforementioned part number 15842334, including the 13 mm key ring (GMNHTSA0001430680-0520, at GMNHTSA000143380-81.)

PRTS N182276, originated on May 16, 2005, includes references to a “solution” of “[k]ey ring slot in key changed to hole and use of a 13mm key ring,” both of which are reflected in Service Bulletin 05-02-35-007. (GMNHTSA000000003-01990.)

51. Why did GM “update[] the Service Bulletin in October 2006 to include additional vehicles and model years”?

Response:

GM updated the Service Bulletin in October 2006 to include additional vehicles and model years in order to expand coverage of the Service Bulletin to include newer vehicles and model years equipped with the same ignition switch as the vehicles referenced in the original Service Bulletin issued in December 2005.

GM has produced documents responsive to this request, including but not limited to records relating to the reason why GM updated the Service Bulletin in October 2006. (GMNHTSA000316277-292; GMNHTSA000316137-6295.)

In addition, GM identified records from 2007 potentially relevant to Request No. 51. Though Request No. 51 is limited to 2006, GM is voluntarily producing the 2007 records. Accordingly, GM is also producing records relating to a Service Bulletin update proposed (but not issued) in 2007. (GMNHTSA000316293-295.) At the second page of these records, a document titled “Service Bulletin” bears the

following “[s]ubject”: “Information on Inadvertent Turning of Key Cylinder, Loss of Electrical System, Hesitation, Stalls and No DTCs Set.” (GMNHTSA000316294). On the third page of these records, the following text appears: “Important: If concern is still present after the repair is complete, replace the ignition switch.” Also on the third page of these records, the “Corporate Coordinator Feedback” reads as follows: “Bulletin rejected per Product Investigations – 4/10/07.” (GMNHTSA000316295.)

52. Provide a copy of the October 2006 updated version of the Service Bulletin.

Response:

GM previously produced to NHTSA a copy of the October 2006 updated version of the Information Service Bulletin. (GMNHTSA000000002.)

53. Provide all documents that “contain references to a second update of the Service Bulletin in July 2011.”

Response:

The chronology submitted to NHTSA on February 24, 2014, stated that “GM’s records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. However, upon investigation, GM believes that the Service Bulletin was not updated in July 2011.”

Although it does not appear that the service bulletin was updated in July 2011, GM has produced several documents that contain references to a second

update of the Service Bulletin as having occurred and/or considered in July 2011. (GMNHTSA000137415-452 (“#05-02-35-007A: Information on Inadvertent Turning of Key Cylinder, Loss of Electrical System and No DTCs - Jul 1, 2011”)); GMNHTSA000020658-59 (contains a reference to a second update of the Service Bulletin in July 2011).)

54. Why did GM consider updating the Service Bulletin in July 2011?

Response:

As stated above and in the chronology submitted to NHTSA on February 24, 2014, GM’s records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. It appears that the Service Bulletin was not updated in July 2011. First, GM maintains a database in which current versions of Service Bulletins are stored and made available to GM dealers. Recent queries of this database indicate that the 2006 update of the Service Bulletin is the most recent version of this document. While further review of this and other Service Bulletin records is underway, no 2011 update of the Service Bulletin has been found in this database. Second, certain GM personnel in the Product Investigations group who were responsible for documenting proposed updates to Service Bulletins have records reflecting proposed updates to the Service Bulletin at issue in 2006 and 2007, but do not have records relating to any update in 2011. Third, GM personnel that were involved in the issuance of the initial Service Bulletin in 2005 do not recall having

heard of, or having been involved in, discussions regarding any update to the Service Bulletin in 2011.

GM has produced documents responsive to this request (GMNHTSA000316137-6295), including but not limited to the following:

- documents that contain references to a potential update of the Service Bulletin in July 2011, which covered the same models and model years as the update in October 2006. (GMNHTSA000282632-645.)
- documents titled “Service Bulletin” dated July 2011. (GMNHTSA000316166; GMNHTSA000316137-38; GMNHTSA000316143-156; and GMNHTSA000316158-163.)

55. Why did GM decide not to update the Service Bulletin in July 2011?

Response:

GM has not determined whether or why GM decided not to update the Service Bulletin in July 2011. As stated in the chronology submitted to NHTSA on February 24, 2014, “GM’s records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. However, upon investigation, GM believes that the Service Bulletin was not updated in July 2011.”

GM has produced documents responsive to this request, including but not limited to the following:

- documents that contain references to a potential update of the Service Bulletin in July 2011, which covered the same models and model years as the update in October 2006 (GMNHTSA000282632-645).
- documents titled “Service Bulletin” dated July 2011. (GMNHTSA000316166; GMNHTSA000316137-38; GMNHTSA000316143-156; and GMNHTSA000316158-163.)

56. Identify all individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.

Response:

GM has not been able to identify individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.

57. For the 474 customers provided key inserts, according to GM’s warranty records, provide a table listing the number of key inserts provided by make, model, and date provided.

Response:

On March 5, 2014, GM produced a copy of the briefing materials prepared for the EFADC meeting of February 24, 2014. The table on page 2 of that PowerPoint presentation includes the number of key inserts provided by make, model, and model year. Upon further review, only 423 of the key inserts were provided to customers in the United States. The remaining customers provided key inserts were located in Canada or Mexico. GM also previously produced a spreadsheet of warranty data

that reflects the number of key inserts provided to customers in North America, including the make, model, and date provided. (GMNHTSA000268908.)

A table attached hereto and entitled, "REQUEST NUMBER FIFTY SEVEN" reflects the 423 key inserts provided to United States customers by make, model, and date provided.

**The following requests relate to statements made by GM in the 2006 portion of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report:**

58. Describe the changes to the ignition switch approved by a GM design engineer on April 26, 2006.

Response:

GM has produced documents responsive to this request, including but not limited to: a copy of the briefing materials prepared for the EFADC meeting of January 31, 2014, which includes a copy of the document approving changes to the ignition switch, signed April 26, 2006. (GMNHTSA000002896-98 at 98 ("Note that the [sic] during cycling, 1 amp was applied on the Delta Ignition Sw. This validation was submitted with New PCB correct timings adjusts as Customer required, also New detent plunger (Catera spring/Plunger) was implemented to increase torque force in the switch.").)

59. Why did a GM design engineer approve changes to the ignition switch on April 26, 2006?



Response:

GM has produced documents responsive to this request, including but not limited to the following:

- a document entitled General Motors Commodity Validation Sign-Off (dated April 26, 2006). (GMNHTSA000002896-98.) The document references: 1) replacing the PCB to “correct timings adjust[s] as Customer required”; and 2) replacing the former detent spring and plunger with the Catera detent spring and plunger to “increase torque force in the switch.”
- certain documents from Delphi, which are related to the ignition switch installed in vehicles subject to the recall announced on February 7, 2014. (GMNHTSA000258201-04; GMNHTSA000257777-78; GMNHTSA000257936-39; GMNHTSA000257941; GMNHTSA000257857-59; GMNHTSA000257870-72; and GMNHTSA000257860.)

60. Identify each individual (including individuals working for or on behalf of GM as well as individuals working for or on behalf of Delphi Mechatronics) who was informed of the changes to the ignition switch approved on April 26, 2006, and describe what each person’s responsibility, role, or other involvement was in relation to the issue.

Response:

GM previously identified the following individuals that may have been informed of the changes to the ignition switch approved on April 26, 2006:

Name	Title
Ray DeGiorgio	Design Release Engineer
Eduardo Rodriguez	Delphi

GM hereby identifies the following additional individuals that may have been informed of the changes to the ignition switch approved on April 26, 2006:

**Delphi Employees**

In October 2005, GM's Design Release Engineer (Ray DeGiorgio) participated in a conference call with the following Delphi personnel: Jorge Morales, John Coniff, Alejandro Becerra, Larry Allen, Victor Baez, Jorge Montes de Oca, and Eduardo P. Rodriguez. The meeting agenda suggests that testing of the Catera and Delta ignition switches was discussed. (GMNHTSA000263926.) In and around October 2005, Delphi employee Arturo Alcala requested that testing be performed on 12 samples of the GM Delta Ignition Switch to validate the new PCBs. The ignition switches included the Catera detent spring and plunger. Delphi employee Jorge Morales was the Customer Specialist assigned to the testing and he issued a report with the testing results. The report lists a "Date In" of October 20, 2005, and a "Date Out" of January 25, 2006. Delphi employee Francisco Mendoza reviewed the testing results. Delphi employees Arturo Alcala and Aldo Calvillo received copies of the report. (GMNHTSA000258176-190.)

In and around October 2005, Delphi employee Arturo Alcala requested that testing be performed on five samples of the GM Delta Ignition Switch that contained the Catera detent spring and plunger and new PCBs with relocated vias and widened traces. Delphi employee Thomas Svoboda was the Customer Specialist

assigned to the testing, and he issued a report with the testing results. The report lists a “Date In” of October 27, 2005, and a “Date Out” of November 2, 2005. Delphi employee Lance Wegner reviewed the testing results. Delphi employees Arturo Alcala, John Coniff, and George Lin received copies of the report. (GMNHTSA000258201-04.)

On January 6, 2006, Delphi employee Arturo Alcala e-mailed the Design Release Engineer to inform him that Delphi sent him 24 samples of the Delta ignition switch with the new PCB design and the Catera detent spring and plunger. Delphi employees John Coniff, George Lin, Juan Carlos Gonzalez, and Eduardo Rodriguez were copied on the e-mail. On January 9, Alcala forwarded a response he received from the GM Design Release Engineer to John Coniff, George Lin, Juan Carlos Gonzalez, and Eduardo Rodriguez. (GMNHTSA000257777-78.)

Delphi employees George Lin and John Coniff are listed as the requestors on a Delphi Mechatronics Change Request Form for a request involving the Delta ignition switch with the new PCB design and Catera detent spring and plunger. The request date listed on the form is January 15, 2006. Eduardo Rodriguez Pequeño is listed as the Change Owner. The form indicates that the change impacts the 2007 Delta ignition switch for the GMX357 platform. The form includes a section labeled “Minimum Required Notifications,” which lists the following Delphi employees and their associated positions: Eduardo Rodriguez (Change Owner); Carlos Lara (Purchasing); Marco Lemus (SQA); Aldo Gonzalez (PC&L – Procurement); D. Cardenas (PC&L – Customer Service); Barbarella G. (PC&L – Customer Service);

Israel Leon (PC&L – Planning); Jorge Montes de Oca (Manufacturing Engineer/Process Engineer); and Jose Luis Rivera (Industrial Quality Engineer); and Ernesto Castellanos (Industrial Engineer). The form includes a checkbox labeled “Notified” and a checkbox labeled “Responded” next to each person’s name. Both boxes are checked for each individual. (GMNHTSA000257936-39.)

The form also includes a section labeled “Notification To These Positions Up To CIB Decision,” which lists the following Delphi employees and their associated positions: Carlos Zarate (Production Line Supervisor); Aldo Calvillo (Validation Engineer); Luis Delgado (Validation Engineer); Larry Allen (Sales); Gabriel Ayala (Sales); Edgar Zambrano (Test Engineer); and Gerardo Cuervas (MCAD). The form includes a checkbox labeled “Notified” and a checkbox labeled “Responded” next to each person’s name. Both boxes are checked for each individual. (GMNHTSA000257936-39.)

Page two of the Delphi Mechatronics Change Request Form includes a section labeled “CR Approval,” which lists the following Delphi employees and their associated positions: Eduardo Rodriguez (Change Owner); Juan Carlos Gonzalez (CAL); Paul Verdream (Mechanical Prod. Engineering Manager); Jesus Chavez (Program Manager); Armando Lozano (Manufacturing Engineering Manager); Hector Hernandez (Process Manager); Mauro Gonzalez (Plant Manager); Orlando Salinas (PC&L Manager – Procurement); Rocio Barron (PC&L Manager – Customer Service); R. Ramirez (PC&L Manager – Customer Service); Eugenia Acosta (Purchasing Manager); J. Olvera (Production Manager); Carlos Zarate (Prod. Line

Manager); Saul Hernandez (Quality Manager); and Francisco Mendoza (Lab Manager). With the exception of Mauro Gonzalez, each name has a signature next to it and a date in April 2006. Mauro Gonzalez has "N/A" listed in his signature line. Attached to the Delphi Mechatronics Change Request Form is a Delphi Mechatronics Change Notice Form for the Delta ignition switch containing the new PCB design and Catera detent spring and plunger. Delphi employees George Lin and John Coniff are listed as requestors and Eduardo Rodriguez Pequeño is listed as the Change Owner. The form indicates that the change impacts the 2007 Delta ignition switch for the GMX357 platform. The form includes a section labeled "CN Approval," which lists the following Delphi employees and their accompanying positions: Alicia Salazar (CIL); Paul Verdream (Engineering Manager); Juan Carlos Gonzalez (CAL); and Jesus Chavez (Program Manager). Each name has a signature next to it and a date in April 2006. The form also includes a section labeled "Document Control Usage Only," which includes a space for Document Control Name and Signature. The section includes the name Jose Luis Alpuche with a signature. The entry is dated April 2006. (GMNHTSA000257936-39.)

In and around April 2006, Delphi employee Eduardo Rodriguez requested that testing be performed on six GM Delta ignition switches. Delphi employee Thomas Svoboda was the Customer Specialist assigned to the testing and he issued a report with the testing results. The report lists a "Date In" of April 5, 2006 and a "Date Out" of April 20, 2006. Delphi employee Lance Wegner reviewed the testing results. Delphi employees John Coniff, George Lin, Eduardo Rodriguez, and J. Morales

received the report. The report notes that the final product has the new PCB and timings that agree with GM's specifications. (GMNHTSA000257873-76.)

On April 21, 2006, Eduardo Rodriguez revised Delphi's Potential Failure Mode and Effects Analysis report. The report concerns the Delta Ignition Switch for the 2004 model year. The report lists Delphi employees Ron Wojtecki and Erik Mattson as members of the "Core Team." The report includes details on various aspects of the ignition switch. For the detent plunger, the report notes that the ignition switch has a problem with low detent spring force. The report provides that Eduardo Rodriguez will implement the new detent plunger by June 30, 2006. For the PCB, the report notes that the ignition switch has a problem with the PCB's electrical signal being out of sequence with the rotary motion. The report provides that Eduardo Rodriguez will implement a new PCB with enlarged vias and revised gold specification by June 30, 2006. The report indicates that the revised gold specification would improve conductivity between the contact plate and the PCB. (GMNHTSA000257943-950.)

Delphi employee Eduardo Rodriguez appears to have signed the GM Commodity Validation Sign Off on behalf of Delphi and dated the form on April 24, 2006. (GMNHTSA000257941.) There are also e-mail communications between Rodriguez and GM's Design Release Engineer in and around April 26, 2006 concerning Delphi's need for the Design Release Engineer's approval on the GM Commodity Validation Sign Off for Delphi to proceed with the part change. Delphi

employees John Coniff, George Lin, Juan Gonzalez, David Kozerski, and Jesus Chavez were copied on many of those e-mails. (GMNHTSA000257857-59.)

In late April 2006, Delphi employees Eduardo Rodriguez, Lino Paz, Carlie Ghioldi, Mussie Pietros, and Jose Rivera Alvarez exchanged e-mails regarding uploading a document related to the Delta ignition switch with the new PCB and detent spring and plunger into "IMDS." Ghioldi uploaded the document and provided Paz with an IMDS ID number. At this time, GM has not determined what IMDS stands for and GM has not identified the document that was uploaded. GM is continuing to investigate. (GMNHTSA000257969-973.)

In early May 2006, DeGiorgio was invited to meetings with George Lin, Juan Carlos Gonzalez, Eduardo Rodriguez, Hugo Ham, Debra Dietz, and Jesus Chavez, to discuss the GMX001, GMX002, and Delta ignitions, among other subjects. (GMNHTSA000264045-46.)

A Part Submission Warrant was completed for the GMX357 Anti-Theft Ignition Switch (Delta). In the comments section of the form it states, "New PCB & Spring Plunger implementation for performance improvement IMDS#45206723." Delphi employee Alejandro Naredo's name appears on the form, which lists his title as Quality Engineer. The report is dated May 26, 2006. (GMNHTSA000257877-78.)

### **GM Employees**

E-mail communications between Arturo Alcala and GM's Design Release Engineer appear to indicate that the Design Release Engineer acknowledged receiving 24 samples of the Delta ignition switch with the new PCB and Catera

detent spring and plunger from Delphi employee Arturo Alcala on January 9, 2006. (GMNHTSA000257777-78.) In addition, the Design Release Engineer appears to have signed the GM Commodity Validation Sign Off on behalf of GM and dated the form April 26, 2006. (GMNHTSA000257941.) The Design Release Engineer also engaged in e-mail communication on and around April 26, 2006, with Delphi employee Eduardo Rodriguez concerning Delphi's need for the Design Release Engineer's approval on the GM Commodity Validation Sign Off for Delphi to proceed with the part change. (GMNHTSA000257857-59.)

GM's review to date also has revealed that GM employees may have been involved in entering the GM Commodity Validation Sign Off into GM's internal system. Samuel Jetti, a contract employee, may have had a role in entering the GM Commodity Validation Sign Off form in GM's Global Quality Tracking System (GQTS), as the GQTS entry for the GM Commodity Validation Sign Off lists Jetti's unique GM identification code. Jetti was hired by GM as a contractor through a company called ACS and worked in GM's Global Purchasing and Supply Chain division. The record in the GQTS system for the April 26, 2006 GM Commodity Validation Sign Off suggests that there may have been one or two GM employees who performed data entry associated with this same form. The identity of these employees and whether they had any contact with this form remains unknown at this time.

Investigation to date has further revealed FPR 1996/2006/US, which concerns a "no crank" problem with ignition switch part number 10392423 on the 2006 Saturn



Ion. The report lists GM employee Dan Fernandez as the “Originator” of the report and the issue “Champion.” In the “Production Remedy” section, the report includes the following proposed actions from Product Engineering: “Change the PCB design to remove via holes from contract traces; Enlarge PCB vias to avoid contactors being in via limits; Detent plunger to increase torque force to be within spec.” The report was initiated on June 20, 2006 and closed on January 31, 2007. (GMNHTSA000224933-944.)

FPR 1996/2006/US references a related PRTS report N202832. PRTS N202832 also concerns a “no crank” problem with ignition switch part number 10392423 on the 2006 Saturn Ion. The report lists Samuel Grebe as the “Document Originator” and has an origination date of June 13, 2006. The report also includes modifications by GM employee Brad Cook on June 20, 2006. The report lists GM employee Thomas Van Wirt as the issue “Champion.” On June 28, 2006, Van Wirt comments, “The solution to the load and skip issue in the PCB traces is to change the PCB design to remove via holes from contact traces. In addition, the PCB vias were enlarged to avoid contacts from being in close proximity to the vias. The detent plunger torque force was increased. This change was treated as a black box tier 3 design change and was approved via a 3660 document sign off by the GM DRE.” The PRTS notes that it was last modified by GM employee Bill Chase on December 20, 2006. (GMNHTSA000268703-715.)

61. Provide a copy of the “document approving changes to the ignition switch” signed by the GM design engineer.

Response:

GM has produced a document titled, “General Motors Commodity Validation Sign-Off,” which bears the name and what appears to be the signature of a GM engineer, dated April 26, 2006. (GMNHTSA000002896-98.)

62. Describe the role, if any, the GM design engineer who approved changes to the ignition switch on April 26, 2006, had in GM’s investigation of airbag non-deployments in any of the recalled vehicles.

Response:

The GM Design Release Engineer was not directly involved in the investigation of airbag non-deployments, but was consulted by other GM employees during that investigation.

The GM Design Release Engineer was invited to a couple of meetings related to that investigation, and had several impromptu discussions with the Field Performance Assessment Engineer in connection with that investigation. The GM Design Release Engineer also accompanied the Field Performance Assessment Engineer to retrieve and inspect the ignition switch from a vehicle involved in a crash during which the airbags did not deploy. On that trip, the GM Design Release Engineer dismantled and inspected the ignition switch from this vehicle. Thereafter, the GM Design Release Engineer was asked to put together a chronology of all

changes to the Cobalt/Ion ignition switch, as well as all Engineering Work Orders related to the switch. As part of this process, the GM Design Release Engineer took apart a couple of pre-model year 2008 Cobalt switches and checked them for specifications. The GM Design Release Engineer also obtained sample model year 2008 Cobalt ignition switches and checked the “feels” on these switches and put them on cars to see if there was anything different about them, but did not take them apart. The GM Design Release Engineer participated in a meeting in approximately May 2012, during which salvage yard data, which showed a drop in torque values between 2004 and 2007, was discussed.

In early October 2012, the Field Performance Assessment Engineer asked the GM Design Release Engineer to provide a high-level estimate of the lead time and cost that would be required to design a new ignition switch with higher torque. Following some correspondence on the subject, the GM Design Release Engineer told the Field Performance Assessment Engineer that he needed to know how much additional torque would be needed in the switch in order to provide an estimate, but he never received an answer, so he provided a design and production cost estimate based on a torque assumption of 100 N cm. According to that estimate, a new switch design would cost approximately \$300,000 and require 18- to 24-months of lead time from the issuance of GM’s purchase order and supplier selection, and the replacement part would cost between \$10/unit (for 1.5 million units, to replace switches on all model year 2005-2007 vehicles) and \$150/unit (to replace switches on only those vehicles brought to dealers).

GM has also produced documents responsive to this request, including but not limited to the following:

In October and November 2010, the Design Release Engineer exchanged correspondence with another GM employee regarding 2003-2007 model year Saturn Ion ignition switch background information and part number changes. (GMNHTSA000259172-73; GMNHTSA000265913.)

In May 2012, the Design Release Engineer was copied on correspondence regarding torque testing on Cobalt ignition switches at a salvage yard. (GMNHTSA000221107-09; GMNHTSA000221110-11; GMNHTSA000221112-18; GMNHTSA000288221-22; GMNHTSA000221125-26; GMNHTSA000282695-97; and GMNHTSA000316139-141.)

In June 2012, the Design Release Engineer exchanged correspondence with another GM employee regarding the history of the Cobalt ignition switch, including a review of a spreadsheet of part changes to the ignition switch. (GMNHTSA000250057-061.)

On October 5, 2012, the Design Release Engineer exchanged correspondence with another GM employee regarding an estimate of the cost of creating a new ignition switch to increase the effort to turn the key from "Run" to "Accessory." (GMNHTSA000221236-38.)

In addition, the Design Release Engineer was copied on electronic invitations for several meetings where ignition switch changes appear to have been a topic to be discussed. (GMNHTSA000316164-65 (February 3, 2012 meeting invite re GMX001

ignition switch); GMNHTSA000221164-65 (August 27, 2012 meeting invite re a review of a 2006 Cobalt crash); GMNHTSA000282954-55 (December 4, 2012 meeting invite re a review of potential changes to the 2005-7 Cobalt steering column and ignition switch); GMNHTSA000221393-94, GMNHTSA000274234-35, and GMNHTSA000274236-37 (January 8, 2013 meeting invite re follow-up to December 4, 2012).) It is unclear from these documents whether the Design Release Engineer attended some or all of these meetings.

In addition to the above, GM has provided the following documents responsive to this request:

- e-mail communications in October 2012 between a GM Design Release Engineer and Field Performance Assessment Engineer regarding the 2005-2007 Cobalt airbag investigation. (See GMNHTSA000320961-62.)
- meeting invitation with the subject “2005-7 Cobalt Steering Column / Ignition Switch Review 1N16-11 (Blue) & Red X.” (GMNHTSA000321784.)
- May 30, 2012 meeting invite sent to the GM Design Release Engineer and other GM employees regarding “Review of Switch Evaluations at Davision & Next Steps 2M6-21.” (GMNHTSA000328725.)
- November 2012 e-mail exchange in which the GM Design Release Engineer provides the estimated cost and lead time for design of a new ignition switch with increased torque. (GMNHTSA000328726.)

63. Did GM approve any change to the ignition switch prior to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

Response:

GM has produced documents responsive to this request, including but not limited to the following: On March 31, 2014, GM produced copies of the Engineering Work Orders referenced below. This response does not address any changes to the ignition switch that were reflected in the General Motors Commodity Validation Sign-Off, dated April 26, 2006. (GMNHTSA000002898.) GM produced a June 27, 2006 meeting invite that includes the GM Design Release Engineer and Delphi employees regarding “Delta/GMX001 & GMX002 Design review and implementation.” (GMNHTSA000328312.)

A change to ignition switch part number 12450250 was proposed in Engineering Work Order #MB612, initiated on January 17, 2001. The work order states: “GMX357 – P/N 124500250 IGNITION SWITCH-REVISE DLS SUFFIX TO ‘D’. (TORSION SPRING MODIFICATION) BETA COUPE BLD.” The Engineering Work Order entered edit stage on June 27, 2001, and was cancelled on April 3, 2002. Under “Cancellation Reason” the Engineering Work Order states, “EWO CANCELLED, IF CHANGE IS STILL VALID REISSUE IN ESQUARE.” (GMNHTSA100040286-88.)

The ignition switch (part number 12450250) was changed pursuant to Engineering Work Order #302726, initiated on February 19, 2004.

(GMNHTSA000220667-681.) The Engineering Work Order states: "Release a modified ignition switch design part number 10392423 for production to improve switch performance at cold temperatures." The changes to the ignition switch included: "New grease (NS-1304; Lower Contact Force; New PCB – FR4 Board)." This Engineering Work Order applied to the ignition switch used in production Saturn Ion vehicles (GMX357). In addition, this Engineering Work Order cancelled part number 12450250 and established part number 10392423. This Engineering Work Order was closed on September 14, 2004. GM, through Engineering Work Order #333314 (GMNHTSA000220697-712) initiated on April 19, 2004, applied these changes to the Chevrolet Cobalt (GMX001). This Engineering Work Order was closed on April 6, 2005.

64. Did GM approve any change to the ignition switch subsequent to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

Response:

The ignition switch (part number 10392423) was changed pursuant to Engineering Work Order #573556 (GMNHTSA000268463-476), initiated on October 12, 2005. The Engineering Work Order states: "revise OFF/RUN/CRANK circuit to include 1.3 K ohm resistor; 1% tolerance; ¼ watt; revise art work on PCB, *i.e.*, move VIAs, increase trace width." This Engineering Work Order applied to the ignition switch for production in the Chevrolet Cobalt (GMX001), Pontiac Solstice (GMX020), Saturn Sky (GMX023), and Chevrolet HHR (GMT001). In addition, this Engineering

Work Order cancelled part number 10392423 and established part number 15886190. This Engineering Work Order was closed on June 12, 2006.

GM has produced additional documents responsive to this request, including but not limited to copies of the Engineering Work Orders referenced below.

This response does not address any changes to the ignition switch that were reflected in the General Motors Commodity Validation Sign-Off, dated April 26, 2006. (GMNHTSA000002898.)

65. Provide all documents related to the reasons that the ignition switch was changed, whether pursuant to GM's approval on April 26, 2006 or at any other time.

Response:

GM has produced numerous documents responsive to this request, including but not limited to the following:

- the document approving changes to the ignition switch, signed April 26, 2006. (GMNHTSA000002896-98 (“Note that the [sic] during cycling, 1 amp was applied on the Delta Ignition Sw. This validation was submitted with New PCB correct timings adjusts as Customer required, also New detent plunger (Catera spring/Plunger) was implemented to increase torque force in the switch.”).)
- October 29, 2013 e-mail exchange between the Field Performance Assessment Engineer assigned in August 2011 and the ignition switch supplier. (GMNHTSA000002881-2903.)



- documents GM received from Delphi on March 31, 2014 (GMNHTSA000257777-58204), including, among other things, e-mail communications between GM engineers and Delphi representatives relating to changes to the ignition switch at issue.
- FPR No. 1996/2006/US, originated on May 22, 2006, includes an attached PowerPoint slide that has the supplier's logo and relates to proposed changes to the ignition switch. (GMNHTSA000000003.)
- PRTS N202832 concerns a "no crank" problem with ignition switch part number 10392423 on the 2006 Saturn Ion. The report lists Samuel Grebe as the "Document Originator" and has an origination date of June 13, 2006. The report also includes modifications by GM employee Brad Cook on June 20, 2006. The report lists GM employee Thomas Van Wirt as the issue "Champion." On June 28, 2006, Van Wirt comments, "The solution to the load and skip issue in the PCB traces is to change the PCB design to remove via holes from contact traces. In addition, the PCB vias were enlarged to avoid contacts from being in close proximity to the vias. The detent plunger torque force was increased. This change was treated as a black box tier 3 design change and was approved via a 3660 document sign off by the GM DRE." The PRTS notes that it was last modified by GM employee Bill Chase on December 20, 2006. (GMNHTSA000268703-715.)
- October 16, 2008 PowerPoint presentation entitled "E7200 Cobalt Warranty [R]eduction" regarding solutions to decrease Cobalt warranty

claims which included the options of changing the ignition switch to a higher detent force and changing the key from a slot to a hole. (GMNHTSA000285711-17.)

- General Motors “Commodity Validation Sign-Off” form regarding ignition switch change for Chevrolet Cobalt platform GMX001, dated May 3, 2007. (GMNHTSA000284705.)
- 2009 e-mails and attachments regarding the “Cobalt CPIT Team” and “Cobalt CPIT Weekly Agenda” that include agenda items related to the PRTS N1078137 issued in 2009 and the Engineering Work Order #1070202 regarding the re-design of the key from a slot to a hole. (GMNHTSA000294508-512 and GMNHTSA000294549-563.)
- March and April 2004 PowerPoint presentation slides related to the PRTS N151929 regarding the Saturn Ion (GMX357) ignition switch and that resulted in the February 2004 change to improve the switch’s performance at cold temperatures. (GMNHTSA000294030-041.)
- June 27, 2006 meeting invite that includes the GM Design Release Engineer and Delphi employees regarding “Delta/GMX001 & GMX002 Design review and implementation.” (GMNHTSA000328312.)

**The following requests relate to statements made by GM in the 2007 portion of the chronology (Attachment B) included in GM’s February 24, 2014 Part 573 Report:**

66. Identify each individual involved in the March 29, 2007 meeting between a “group of GM employees ... [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”

Response:

GM has produced the following documents responsive to this request: an e-mail message dated March 27, 2007, sent by Doug Wachtel, and its attachment that bears the title “AGENDA NHTSA 03-29-07.pdf” and the caption “NHTSA/GM Quarterly Review - March 29, 2007 - Washington, DC – AGENDA.” (GMNHTSA000002849-850.)

The attachment titled “AGENDA NHTSA 03-29-07.pdf” lists the following individuals as “presenters” during the meeting of March 29, 2007:

Name	Title
Brian Everest	Senior Consultant Manager, Field Performance Assessment Engineer
Matt Jerinsky	GM Performance Engineer, Crash Sensing Performance
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy
Brian Stouffer	Field Performance Assessment Engineer(retired)
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)

According to the attachment, these presentations appear to have been conducted using “WebEx,” an online remote meeting service, so some of the presenters referenced above may not have been physically present in Washington, D.C., during the meeting of March 29, 2007.

The following individuals may have been physically present for the meeting of March 29, 2007, in Washington, D.C.:

<b>Name</b>	<b>Title</b>
Brian Everest	Senior Consultant Manager, Field Performance Assessment Engineer
Stephen Gehring	Director, Global Public Policy - Global Infotainment and OnStar Public Policy
Matt Jerinsky	GM Performance Engineer, Crash Sensing Performance
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy

The e-mail message sent by Doug Wachtel and dated March 27, 2007 at “20:20:15:000” appears to forward an e-mail message sent by Elizabeth A. Bardowell on March 27, 2007, at 3:23 p.m. Ms. Bardowell’s e-mail reflects that it was sent to the following recipients who may have attended the meeting of March 29, 2007, in Washington D.C.:

<b>Name</b>	<b>Title</b>
Rick A. Czajkowski	FFS – Engineer 4
Mark Deacon	Senior Project Engineer
Gary M. Dowd	Senior Project Engineer
Richard J. Gratz	Engineering Group Manager
Philip R. Horton	Senior Staff Engineer
John Murawa	Field Performance Assessment Engineer
Sue Myers-Babiasz	FFS – Clerk 9A, Executive Secretary 2
Jay H. Sim	Staff Engineer
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Keith D. Wilson	Senior Administrator

Doug Wachtel’s e-mail, dated March 27, 2007, in which he appears to forward Bardowell’s e-mail, reflects that it was sent to the following recipients who may have attended the meeting of March 29, 2007, in Washington, D.C.:

<b>Name</b>	<b>Title</b>
Eric A. Buddrius	Field Performance Assessment Engineer
Christopher Janik	Field Performance Assessment Engineer
John Murawa	Field Performance Assessment Engineer

Name	Title
Mickey Sabol	Field Performance Assessment Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)
Harry A. Wiedenmeyer	Field Performance Assessment Engineer

67. Provide all documents related to the March 29, 2007 meeting between a “group of GM employees ... [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”

Response:

GM has produced documents responsive to this request, including an e-mail message dated March 27, 2007, sent by Doug Wachtel and its attachment, which bears the title “AGENDA NHTSA 03-29-07.pdf” and the caption “NHTSA/GM Quarterly Review – March 29, 2007 – Washington, DC – AGENDA.” (GMNHTSA000002849-850.) GM also produced an e-mail dated April 3, 2007, with the subject of “GM Technical Training Workshop at NHTSA (03/29/07).” (GMNHTSA000264059.) GM is also submitting today a PowerPoint presentation titled “GM Technical Training – Frontal Air Bag Sensing – March 29, 2007.” (GMNHTSA500000003-046.)

68. Identify the “GM investigating engineer[] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy,” and any other individuals involved with this work.

Response:

The following GM engineers were tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy:

Name	Title
Brian Everest	Senior Consultant Manager, Field Performance Assessment Engineer
John Sprague	Field Performance Assessment Engineer

69. Provide all documents related to the work performed by the “GM investigating engineer[] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy.”

Response:

GM produced custodial documents for the GM investigating engineer tasked in 2007 with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy relating to his work during this time period. These documents include a variety of spreadsheets and analyses prepared by the investigating engineer including the following documents reflecting warranty claim information (GMNHTSA000225204), Technical Assistance Center reports (GMNHTSA000225205), charts reflecting the work order history of the ignition switch (GMNHTSA000343412 and GMNHTSA000379768), airbag deployment and non-deployment analyses (GMNHTSA000398444, GMNHTSA000398425 and GMNHTSA000398447) as well as spreadsheets “tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy”

(GMNHTSA000398112, GMNHTSA000385018, GMNHTSA000391944 and GMNHTSA000391908).

GM also produced the investigative file of the Field Performance Assessment Engineer assigned in August 2011 to move forward with an FPE investigation of a group of crashes in which airbags in 2005-07 model year Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts. (GMNHTSA000246684-48069, GMNHTSA000249603.) This investigative file contains some documents related to the work performed by the GM investigating engineer tasked in 2007 with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy.

GM also produced an e-mail dated April 4, 2007, with a subject of “Chevrolet Cobalt Air Bag ETAs” and attaching Early Technical Assessment documents described in the e-mail as relating to “air bag non-deployment claims on Chevrolet Cobalts.” (GMNHTSA000285177-5214.)

**The following requests relate to statements made by GM in the 2009 portion of the chronology (Attachment B) included in GM’s February 24, 2014 Part 573 Report.**

70. On what date did GM open the referenced February 2009 PRTS? On what date did GM close the referenced PRTS inquiry?

Response:

PRTS N1078137 was originated on February 4, 2009. (GMNHTSA000001028-039.) GM previously stated that this PRTS was closed on December 7, 2009. This

was the “Action Approved” date for this PRTS. PRTS N1078137 has an “Actual Close Date” of February 18, 2010. (GMNHTSA000001028-039.)

71. Did GM implement the key change following the February 2009 PRTS in any model other than the Cobalt? If yes, state each model to which the key change applied (including the model year for which the key change was first implemented). If no, state the reasons that GM did not implement the key change in any model other than the Cobalt.

Response:

Yes. The key change also applied to the model year 2009 Chevrolet HHR (GMT001), Saturn Sky (GMX023), and Pontiac Solstice (GMX020), model year 2009; and the Cadillac CTS Sedan (GMX322), Cadillac CTS Coupe (GMX226), and Cadillac CTS Wagon (GMX206), model year 2011.

GM has produced a copy of Engineering Work Order #1070202. (GMNHTSA000316167-6220.) Engineering Work Order #1070202 was initiated on December 12, 2008, to change the “key ring opening on [the] key from a slot to a hole.” In addition to the Cobalt, the Engineering Work Order applies to the Chevrolet HHR (GMT001), Saturn Sky (GMX023), and Pontiac Solstice (GMX020), model year 2009.

GM has also produced a copy of Engineering Work Order #1229921. (GMNHTSA000316221-244.) Engineering Work Order #1229921 was initiated on January 18, 2010, to “change [the] key ring opening on Cadillac Key from a slot to a hole.” The Engineering Work Order applies to Cadillac CTS Sedan (GMX322),



Cadillac CTS Coupe (GMX226), and Cadillac CTS Wagon (GMX206), model year 2011. (GMNHTSA000221035-37 (e-mail chain discussing Engineering Work Orders #1070202 and #1229921); and GMNHTSA000316137-6295.)

72. Did the key change implemented following the February 2009 PRTS differ from the key change proposed in 2005? If yes, identify each difference, and state whether and how the difference(s) were relevant to preventing accidental ignition shut-off.

Response:

GM has previously produced documents responsive to this Request, including but not limited to: (1) a copy of Engineering Work Order #521309, which was initiated on June 9, 2005, to modify the “key profile from a slot which captures the key ring to a hole” in order to “assist in eliminating the inadvertent ignition turn off noted on some Cobalt vehicles” (GMNHTSA000278277-292); (2) a copy of Engineering Work Order #574533, which was initiated on October 13, 2005, to modify the “key profile from a slot which captures the key ring to a hole” in Saturn Ion vehicles (GMNHTSA000278294-97); (3) a copy of PRTS N1078137, which states: “Change key opening from a slot to a hole to eliminate accidental ignition shut off” (GMNHTSA000273715); (4) a copy of PRTS N182276, which states: “Slot in key head to be modified to a hole. A smaller key ring (13mm dia) will also be used to assist in limiting the problem” (GMNHTSA000220543-569); and (5) a copy of a presentation, which describes a production plan to: “Fill In Key Slot & Add 3.5mm Hole and use . . . 13mm ring” (GMNHTSA000271499).

Engineering Work Order #521309 (GMNHTSA000278277-292) authorized the release of a service part (a key insert including a 3.5 mm diameter hole), and four keys (two production and two service keys) which were to have a nominal 4.2 mm diameter hole. The Engineering Work Order indicates that the change would apply to production and service keys used in the Chevrolet Cobalt and Pontiac G5. The Engineering Work Order indicates that it was approved by the program change approval board on June 27, 2005.

A supplemental Engineering Work Order #529926 (GMNHTSA000381219-229) authorized the release of four additional keys (two production and two service keys) for the Saturn Sky and Opel GT which were to have a nominal 4.2 mm diameter hole. The same Engineering Work Order authorized additional usage of the Pontiac production and service keys for the Pontiac Solstice. The Engineering Work Order indicates that it was approved by the program change approval board on August 15, 2005.

GM also produced a copy of Engineering Work Order #1070202. (GMNHTSA000316167-6220.) Engineering Work Order #1070202 was initiated on December 12, 2008, to change the “key ring opening on [the] key from a slot to a hole.” This Engineering Work Order authorized the release of six keys (three production and three service keys) for use in the Chevrolet Cobalt and HHR, Pontiac G5 and Solstice, and Saturn Sky, with a nominal 4.0 mm diameter hole. The Engineering Work Order indicates that it was approved by the program change approval board on March 10, 2009.

Attached hereto is an illustration of the changes made by Engineering Work Order #521309 and #1070202 entitled, "REQUEST NUMBER SEVENTY TWO."

There are slight differences in the hole diameters for the keys referenced in the 2005 and 2009 Engineering Work Orders (including the 2005 service part inserts).

GM has also produced a copy of Engineering Work Order #1229921. (GMNHTSA000316221-244.) Engineering Work Order #1229921 was initiated on January 18, 2010, to "change [the] key ring opening on Cadillac Key from a slot to a hole." (*See also* GMNHTSA000316137-6295.)

73. Provide all documents related to the key change implemented following the February 2009 PRTS, and identify all individuals involved with the key change.

Response:

The key change implemented following the February 2009 PRTS applied to the Chevrolet Cobalt and to the model year 2009 Chevrolet HHR (GMT001), Saturn Sky (GMX023), and Pontiac Solstice (GMX020), model year 2009; and the Cadillac CTS Sedan (GMX322), Cadillac CTS Coupe (GMX226), and Cadillac CTS Wagon (GMX206), model year 2011.

GM has produced documents responsive to this Request, including but not limited to: (1) a copy of Engineering Work Order #1070202, which was initiated on December 2, 2008, to change the "key ring opening on [the] key from a slot to a hole" (GMNHTSA000316167-6220); (2) a copy of Engineering Work Order #1229921, which was initiated on January 18, 2010, to "change [the] key ring opening on

Cadillac Key from a slot to a hole” (GMNHTSA000316221-244); and (3) e-mails among GM engineers discussing the PRTS and the Engineering Work Order generated to change the key from a slot to a hole. (GMNHTSA000281790.)

The following individuals may have been involved with the key change:

<b>Name</b>	<b>Title</b>
Mark Alty	Change Management Manager
Joe Baaki	Global Product Development, Purchasing and Supply Chain
William Chase	Warranty Engineer
Paul Coliadis	Engineer Group Manager
Brad I. Cook	Quality Systems Engineer –PRTS+Systems
Yvonne Cummings	Quality Control Coordinator
John Dobish	Global Vehicle Systems and Integration
Darren Ford	Global Quality Continuous Improvement
Jamayca Henderson	Global EWO Implementation, Change Management Coordinator
Chuck Kellogg	Program Warranty Engineer
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Mary Kinney	Change Management Coordinator
Kathy Macko	Sr. Quality Systems Engineer – Analyst
Gregory Schone	Global Quality Continuous Improvement
Sharon Schroeder	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Bill Skelton	Engineering Group Manager
David Trush	Lead GMNA Lockset Engineer
Daniel Wood	Supplier Quality, Spring Hill

74. Why did “several GM engineers me[e]t with representatives of Continental, the supplier of the SDMs used in the Cobalt” on or about May 15, 2009?

Response:

As discussed with NHTSA by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of another

meeting between GM engineers and Continental representatives that took place on or about August 16, 2007. During this meeting, Continental representatives discussed SDM data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy. GM also has learned that, prior to the May 15, 2009 meeting, some GM employees went to a Continental office or facility to observe Continental download the data from a second SDM.

GM has produced documents relating to the 2007 and 2009 meetings, including but not limited to the following: an invitation for an April 21, 2009 meeting with the subject line "Meeting for Download of Chevy Cobalt" (GMNHTSA000210276); a video of the download of data from the second SDM that occurred prior to the May 15, 2009 meeting (GMNHTSA000406704); copies of Continental Field Event Analysis Reports (GMNHTSA000002824-848); two NISM files with respect to non-deployment incidents that were discussed at the August 2007 and May 2009 meetings with Continental representatives (GMNHTSA000200735-0954; GMNHTSA000209695-210289); presentations, notes, minutes, memoranda, or summaries from the August 2007 and May 2009 meetings (GMNHTSA000248070-253371; GMNHTSA000258205-263553); a Crash Test Special Report created on July 27, 2004 for the SDM in a Chevrolet Cobalt (GMNHTSA000226678-82); and the "Protocol to Download the Data Stored in the Nonvolatile Memory of the Sensing Diagnostic Module of the Chevy Cobalt, VIN 1G1AM15B067787193" (GMNHTSA000338387-88).

A GM Field Performance Assessment Engineer obtained the SDM from a model year 2005 Cobalt in an attempt to understand why the airbags had not deployed during certain frontal-impact crashes involving Cobalts. The Field Performance Assessment Engineer sent the SDM to the supplier (Continental AG) because Continental could extract more data from the SDM than GM was able to extract. Continental prepared a report containing its analysis of data extracted from the SDM and representatives of Continental met with GM engineers to discuss the contents of Continental's report on or about August 16, 2007.

The Field Performance Assessment Engineer identified a second occasion on which GM obtained the SDM for analysis, this time from a model year 2006 Cobalt involved in a frontal-impact crash in 2008 during which the airbags did not deploy. GM sent this second SDM to Continental for analysis. GM has learned that, prior to the May 15, 2009 meeting, some GM employees went to a Continental office or facility to observe Continental download the data from the second SDM.

Continental analyzed the SDM data and prepared reports containing the results of this analysis. On or about May 15, 2009, the Field Performance Assessment Engineer and several other GM engineers met with Continental representatives to discuss the reports Continental had prepared.

75. Identify the GM engineers who participated in the meeting with Continental on or about May 15, 2009.

Response:

As discussed with NHTSA by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of another meeting between GM engineers and Continental representatives that took place on or about August 16, 2007. During this meeting, Continental representatives discussed SDM data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy.

The following GM engineers may have participated in the August 16, 2007 and/or May 15, 2009 meetings with Continental:

<b>Name</b>	<b>Title</b>
James Churchwell	Safety Integration Sensing Performance
Orhan Demirovic	Project Engineer
Brian Everest	Senior Consultant Manager, Field Performance Assessment Engineer
Lois Gurnsey	Senior Staff Engineer
William Hohnstadt	Engineering Group Manager
Matt Jerinsky	GM Performance Engineer, Crash Sensing Performance
Laclyn Palmer	Legal Staff
John Sprague	Field Performance Assessment Engineer
Lisa Stacey	Staff Engineer

(e-mail communication between GM personnel concerning agenda for August 16, 2007 meeting with Continental (GMNHTSA000002838).)

GM's review has also revealed an invitation for an April 21, 2009 meeting with the subject line "Meeting for Download of Chevy Cobalt." Continental employee Bob Andres sent the invitation to Continental employee Doug McConnell, Husch Blackwell employee Giuseppe Giardina, and GM employee John Sprague. The

invitation text states: “This meeting is for the download of the EEPROM from a Chevy Cobalt module that was involved in a crash.” (GMNHTSA000210276.)

76. Provide all documents regarding the meeting on or about May 15, 2009 between GM and Continental.

Response:

As discussed with NHTSA by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of another meeting between GM engineers and Continental representatives that took place on or about August 16, 2007. During this meeting, Continental representatives discussed SDM data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy. GM also has learned that, prior to the May 15, 2009 meeting, some GM employees went to a Continental office or facility to observe Continental download the data from a second SDM.

GM has produced documents responsive to this request, including but not limited to the following:

- copies of Continental Field Event Analysis Reports. (GMNHTSA000002824-848.)
- two NISM files with respect to nondeployment incidents that were discussed at the August 2007 and May 2009 meetings. (GMNHTSA000200735-0954; GMNHTSA000209695-210289.)
- additional documents identified through targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda, or summaries



from the August 2007 and May 2009 meetings. (GMNHTSA000248070-253371; GMNHTSA000258205-263553.)

- a Crash Test Special Report created on July 27, 2004 for the SDM in a Chevy Cobalt. (GMNHTSA000226678-82.)
- the “Protocol to Download the Data Stored in the Nonvolatile Memory of the Sensing Diagnostic Module of the Chevy Cobalt, VIN 1G1AM15B067787193.” (GMNHTSA000338387-88.)
- an invitation for an April 21, 2009 meeting with the subject line “Meeting for Download of Chevy Cobalt.” (GMNHTSA000210276.)
- a video of the download of data from the second SDM that occurred prior to the May 15, 2009 meeting. (GMNHTSA000406704.)

77. Regarding the meeting on or about May 15, 2009 between GM engineers and representatives of Continental in which Continental apparently divulged new (and previously unknown to GM) data from two non-deployment incident SDMs: Provide the crash incident details (crash date, vehicle VIN and MMY details, complaints, lawsuits, injury/fatality counts, PARs, field inspection details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental. Discuss in detail the nature and meaning of the data Continental was able to access (and that was apparently inaccessible to GM) from the two SDMs, and how it was used to determine, or otherwise showed that the SDM sensing algorithm had been disabled during the two crash incidents. State the reasons Continental provided for why the airbag sensing algorithm had been disabled during

the crash events, and discuss any explanations Continental provided as to why this was not apparent in the data readily available to GM, or to others who use commercially available tools to access such information. Describe the method or means by which Continental was able to access this data, and state whether or not GM currently has the capability to access this same information, and if so, state when GM obtained this capability. Provide copies of any and all documents that were provide by any party present at the meeting, or that were subsequently provided or exchanged as a result of, or in connection with the meeting, and state the current location and disposition of the two SDMs provided to Continental.

Response:

As discussed with NHTSA by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of another meeting between GM engineers and Continental representatives that took place on or about August 16, 2007. During this meeting, Continental representatives discussed SDM data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy. GM also has learned that, prior to the May 15, 2009 meeting, some GM employees went to a Continental office or facility to observe Continental download the data from a second SDM.

**(a) Provide the crash incident details (crash date, vehicle VIN and MMY details, complaints, lawsuits, injury/fatality counts, PARs, field inspection details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental.**

GM has produced documents responsive to this request, including but not limited to the following:

- copies of Continental Field Event Analysis Reports. (GMNHTSA000002824-848.)
- two NISM files with respect to non-deployment incidents that were discussed at the August 2007 and May 2009 meetings. (GMNHTSA000200735-0954; GMNHTSA000209695-210289.) These NISM files contain information specified in Request No. 77—specifically, “crash incident details (crash date, vehicle VIN and MMY details, complaints, law suits, injury/fatality counts, PARs, field inspection details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental.”
- additional documents identified through targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda, or summaries from the August 2007 and May 2009 meetings. (GMNHTSA000248070-253371; GMNHTSA000258205-263553.)
- GM previously produced to NHTSA, files for the NISM (Dewallen Colbert, GM File #504880) and Incident Without Claim (Joseph Harding, GM File #660660) involving non-deployment incidents that were discussed at the August 2007 and May 2009 Continental meetings. (GMNHTSA000200735-0954, GMNHTSA000209695-210289, GMNHTSA000296652-6777, GMNHTSA000307328-398.) These files contain information specified in Request No. 77—specifically, “crash incident details (crash date, vehicle VIN and MMY details, complaints, law suits, injury/fatality counts,

PARs, field inspection details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental.” The Colbert NISM (GM File #504880) and the Harding Incident Without Claim (GM File #660660) are also identified in the attachment to GM’s April 3, 2014 response to the March 4, 2014 Special Order Request No. 5 titled “REQUEST NUMBER FIVE.” This attachment identifies the respective crash dates (“incident date”), vehicle VINs, MMY details, and injury/fatality counts for the referenced NISM and Incident Without Claim. GM also produced Early Technical Assessment (“ETA”) data for the Colbert NISM (GM File #504880) at the following Bates ranges: GMNHTSA000285177-181; GMNHTSA000285191.

**(b) Discuss in detail the nature and meaning of the data Continental was able to access (and that was apparently inaccessible to GM) from the two SDMs, and how it was used to determine, or otherwise showed that the SDM sensing algorithm had been disabled during the two crash incidents.**

Continental owned intellectual property related to the SDM which allowed Continental to use its IP to decode contents of the SDM’s memory regarding the crash, that GM could not have decoded. The primary data that Continental was able to access from the Harding SDM was (1) acceleration data, and (2) data on whether the vehicle’s crash sensing algorithms were enabled. With respect to acceleration data, Continental was able to record 70 milliseconds of data in Gs, and GM cannot access any acceleration data. With respect to the crash sensing algorithm, Continental’s analysis revealed that the crash sensing algorithms were turned off at the time of the crash. Continental stated that the crash sensing algorithms could

have been disabled because of (a) a loss of battery power for over 150 milliseconds or (b) the SDM did not receive a power mode run signal at the time of the crash. Continental did not indicate which cause was more likely to have occurred or why the crash sensing algorithm was disabled. (GMNHTSA000002824-835.)

**(c) State the reasons Continental provided for why the airbag sensing algorithm had been disabled during the crash events, and discuss any explanations Continental provided as to why this was not apparent in the data readily available to GM, or to others who use commercially available tools to access such information.**

GM personnel learned from Continental that the airbag's front and side algorithms were disabled at the time of the crash. Continental set forth two possible explanations as to why the algorithms were disabled: (1) a loss of battery power for over 150 milliseconds; or (2) the SDM did not receive a power mode run signal at the time of the crash. (GMNHTSA000002824-837.)

In the normal course, GM would provide an SDM supplier with technical specifications that would provide the minimum specifications that the SDM would need to meet. GM only has the ability to access the data that conforms with those SDM minimum specifications, and GM can access that data using commercially available data retrieval tools. For certain SDMs, a supplier such as Continental may program the SDM to go beyond GM's minimum specifications and store above-minimum-specification data in areas of the SDM that are not accessible to GM through the use of commercially available tools.

**(d) Describe the method or means by which Continental was able to access this data, and state whether or not GM currently has the capability to access this same information, and if so, state when GM obtained this capability.**

Continental would likely have used its own, proprietary tools to access the data. GM currently does not have the capability to access the additional information Continental accessed in those SDMs.

**(e) Provide copies of any and all documents that were provide by any party present at the meeting, or that were subsequently provided or exchanged as a result of, or in connection with the meeting, and state the current location and disposition of the two SDMs provided to Continental.**

GM has produced numerous documents in response to this request, but is not aware of the current location and disposition of the two SDMs provided to Continental.

**The following requests relate to statements made by GM in the 2010 portion of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report:**

78. Did GM perform any work in 2010 to investigate crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.

Response:

In 2010, GM Legal Staff learned of a number of crashes in which Cobalt and Ion vehicles were involved in frontal impacts and the airbags did not deploy. In cases where claims or lawsuits were filed, GM Legal Staff attorneys were assigned to these matters, members of the Field Performance Assessment ("FPA") group prepared reports known as ETAs, and investigators with claims administrator ESIS conducted investigations of the crashes. GM has previously produced documents relating to these crashes. (GMNHTSA000211572-74 (Chansuthus ETA); GMNHTSA000329017-039 (Chansuthus ESIS airbag data); GMNHTSA000211984-

85 (Johnston ETA); GMNHTSA000312749-754 (Johnston ESIS airbag data)). For documents related to the Chansuthus crash, *see* GMNHTSA000210855-11889 and GMNHTSA000311133-513. For documents related to the Johnston crash, *see* GMNHTSA000211890-997 and GMNHTSA000312305-767.

The following individuals may have performed work in 2010 to investigate crashes in any of the recalled vehicles in which the airbags did not deploy:

Name	Title
Kathy Anderson	GM Technical Fellow in Field Performance Assessment
Mark Byrd	ESIS Investigator
Jim Churchwell	GM Sensing Performance Release Engineer
Daniel Derrick	ESIS investigation
Brian Everest	Senior Consultant Manager, Field Performance Assessment Engineer
Matt Jerinsky	GM Performance Engineer, Crash Sensing Performance
Raymond Michael	ESIS investigator
Jaclyn Palmer	Legal Staff
John Sprague	Field Performance Assessment Engineer
Mike Wedzinski	Field Performance Evaluation Engineer

**The following requests relate to statements made by GM in the 2011 portion of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report:**

79. On what date did GM initiate a Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts”?

Response:

On July 27, 2011, Jaclyn Palmer invited Brian Everest, Carmen Benavides, Deb Nowak-Vanderhoef, Doug Wachtel, Glenn Jackson, James Churchwell, Jenny Sevigny, John Sprague, Matthew Jerinsky, and William Kemp to a roundtable

meeting to be held later that day regarding “Cobalt Airbag Claims Review.” (GMNHTSA000220994.) Following the meeting, Doug Wachtel, the Senior Manager of Product Investigations, was charged with conducting an investigation into Cobalt airbag non-deployments.

An “[i]nvestigator [was] assigned for airbag nondeployment” on August 24, 2011. (GMNHTSA000224064-4124 at 4076 (Jan. 31, 2014 EFADC meeting briefing materials presentations).) The date on which the FPE investigator was assigned may not be the same date on which GM initiated a FPE investigation, however.

GM is also aware that on May 18, 2007, a GM Product Investigations Engineer called a meeting with the subject: “Cobalt & Ion Airbag Sensing Production Improvement,” but it is not clear whether this meeting related to an FPE investigator.

80. Identify each individual involved with the Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts.”

Response:

The following individuals may have been involved with the FPE “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts”:

Name	Title
Carmen Benavides	Director, Product Investigations
Eric Buddrius	Product Investigations



<b>Name</b>	<b>Title</b>
Jim Churchwell	Sensing Performance Electrical Engineer
Terry Connolly	Director – Suspension, Structures, Steering
Dan Davis	Red X Engineer
Ray DeGiorgio	Design Release Engineer
John Dolan	Engineer and Head of Global Subsystem Leader Team on Passive Safety Control
James Federico	Chief Engineer, Subcompacts
Maureen Foley-Gardner	Field Performance Evaluation Director
Bill Kemp	Legal Staff
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Jeff Konchen	Ignition Cylinder Lead
Vipul Modi	Global Lead Engineer – Responsible for Airbag Electronics
John Murawa	Field Performance Assessment Engineer
Jaclyn Palmer	Legal Staff
Jennifer Sevigny	Senior Manager, Field Performance Assessment
John Sprague	Field Performance Assessment Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)
Brian Thompson	Group Manager, Electrical Engineering
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Terry Woychowski	Vice President, Program Management (retired)
John Zuzelski	Global Steering System GSSLT

81. Provide all documents related to GM’s Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts,” including all documents related to the reasons that GM initiated this investigation.

Response:

GM has produced documents related to GM’s FPE “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007

Pontiac G5 had not deployed during frontal impacts,” including documents related to the reasons that GM initiated this investigation. These documents include:

- EFADC PowerPoint presentations (GMNHTSA000218132-36);
- an FPERC PowerPoint presentation (GMNHTSA000002735-2822);
- certain documents produced in the Melton litigation, including the plaintiff’s expert report and the transcript of the deposition of the Field Performance Assessment Engineer assigned in August 2011 (GMNHTSA000002904-0197570; GMNHTSA000229033-230628);
- a PowerPoint presentation prepared by an outside engineer retained by GM in 2013 (GMNHTSA000002853-877);
- the “Red X” and “Design For Six Sigma” documents referenced in the chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014 (GMNHTSA000002688-2734);
- the file maintained by the GM investigating engineer who in 2007 was “tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy, in order to try to identify common characteristics of these crashes” (GMNHTSA000246684-48069);
- copies of spreadsheets and a chart entitled “FPE Emerging Issues 2014” (GMNHTSA000277603; GMNHTSA000277609; GMNHTSA000277615; GMNHTSA000278020-21);
- e-mail regarding estimated costs for field actions relating to the 2005-2007 Cobalt ignition switch (GMNHTSA000283477);

- e-mail dated February 5, 2014 regarding the Cobalt ignition population, cost, and documentation from Delphi. (GMNHTSA000283937-38; GMNHTSA000283939-940);
- e-mail regarding preventative action letter for Cobalt ignition switches (GMNHTSA000283943-944);
- graphics regarding “[k]nee to key clearances” in Cobalt, CTS, and LaCrosse vehicles (GMNHTSA000283479);
- slides regarding “Potential Ideas” and “Mechanical Solutions” (GMNHTSA000282956-57);
- spreadsheet regarding Ignition Switch Field Testing (GMNHTSA000283936);
- e-mail regarding 2012 discussions between FPE investigators and GM engineers relating to potential mechanical solutions for the ignition switch. (GMNHTSA000282943-45; GMNHTSA000282946-949; and GMNHTSA000282954-55);
- e-mail regarding 2013 discussion between an FPE investigator and GM engineer regarding “Added Switch Capacity for Cobalt” (GMNHTSA000283474); and
- e-mail dated June 21, 2012 regarding SDM (GMNHTSA000288231-33).

**The following requests relate to statements made by GM in the 2012 portion of the chronology (Attachment B) included in GM’s February 24, 2014 Part 573 Report:**

82. What steps did those involved in GM's Field Performance Evaluation investigation take to "identify design changes to the ignition switch"? To the extent the answer to this request involves discussions with GM employees or employees of GM's supplier, identify the individuals involved in those discussions and identify the date(s) and substance of those discussions.

Response:

The Senior Manager of Product Investigations held a meeting in late 2011 with the vehicle component engineers with whom an FPA Investigator had spoken with and asked them whether the parts of the vehicle had changed. The GM Design Release Engineer told the Senior Manager of Product Investigations that there had been no hardware changes to the ignition switch. Specifically, the "GM print," which the GM Design Release Engineer was responsible for issuing to instruct the supplier on how to build the part, showed no hardware changes to the ignition switch since the Ion went into production.

Similarly, in the spring of 2012, an FPA investigator and an FPA engineer provided a Manager of Switches and Controls, Pontiac Test Labs and a Design Release Engineer with a list of all Engineering Work Orders associated with the Cobalt ignition switch and asked them whether any of these changes were hardware changes. They indicated that there were none. The FPA investigator and FPA engineer asked whether any of the changes associated with the Engineering Work Orders would have affected the torque of the ignition switch and were told that none

of the changes associated with the Engineering Work Orders would have affected the torque of the ignition switch.

Sometime in 2011 or 2012, the GM Design Release Engineer took apart a couple of pre-model year 2008 Cobalt switches and checked them for specifications. He did not see any obvious differences between the two switches, and nothing stood out to him during his inspection.

That GM Lead Design Engineer also spoke with Mary Fitch from Delphi by phone, and participated in a second call with Fitch and other Delphi employees. Fitch reported that there had been no tool changes, tool moves, or tool refurbishing on the production line in question. The GM Design Release Engineer also recalled obtaining sample model year 2008 Cobalt ignition switches from Fitch.

In the summer of 2009, a GM Field Performance Assessment Engineer, entered the part numbers for the front sensor, the SDM, and the switch into GM's E<sup>2</sup> system, and pulled the Engineering Work Orders for these parts to try to identify any part changes new to the model year 2008 Cobalt that could account for the different rates of unexpected airbag non-deployments he had seen in those vehicles.

GM is aware of the following individuals that were involved in discussions relating to identifying design changes to the ignition switch:

<b>Name</b>	<b>Title</b>
Ray DeGiorgio	Design Release Engineer
Mary Fitch	Delphi
John Sprague	Field Performance Assessment Engineer
Brian Stouffer	Field Performance Assessment Investigator (retired)
Brian Thompson	Manager of Switches and Controls, Pontiac Test Labs
Doug Wachtel	GM Senior Manager of Product Investigations

83. Provide all documents related to the steps taken by those involved in GM's FPE investigation to "identify design changes to the ignition switch."

Response:

GM has produced documents responsive to this request, including but not limited to the following:

- a PowerPoint presentation prepared by an outside engineer retained by GM in 2013. (GMNHTSA000002853-877.)
- "Red X" and "Design For Six Sigma" documents referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. (GMNHTSA000002688-2734.)
- the investigative file maintained by the Field Performance Assessment Engineer assigned in August 2011. (GMNHTSA000246684-48069.)

84. On what date did GM initiate a study using the "Red X" problem-solving methodology to "better understand[] the differences in observed torque performance"?

Response:

GM has identified e-mail communications between a Field Performance Engineer and a Red X engineer requesting the initiation of a study using “Red X” problem-solving methodology on September 6, 2012. (GMNHTSA000135996-98.)

85. Identify each individual involved with a study using the “Red X” problem-solving methodology to “better understand[] the differences in observed torque performance.”

Response:

The following individuals were involved with a study using the “Red X” problem-solving methodology to “better understand[] the difference in observed torque performance.”

Name	Title
Dan Davis	Red X Engineer
Bill Merrill	Red X Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)

86. What were the results of the “Red X” study?

Response:

A PowerPoint presentation prepared by the Red X investigator (GMNHTSA000002688-692) discusses the results of the “Red X” study.

87. Provide all documents related to the “Red X” study, including all documents related to the reasons that GM initiated the study.

Response:

GM has produced documents responsive to this request, including but not limited to the following: (1) e-mail communications between GM personnel and a Red X engineer discussing initiation of a “Red X” study on September 6-7, 2012 (GMNHTSA000136001); (2) e-mail communications between a Field Performance Engineer and a Red X engineer requesting the initiation of a “Red X” study on September 6-17, 2012 (GMNHTSA000135996-98); (3) e-mail communication from the Field Performance Engineer concerning a meeting to discuss the initiation of a “Red X” study on October 4, 2012, and follow up meeting on November 14, 2012 (GMNHTSA000135930-31; GMNHTSA000333844-48); (4) e-mail communications between GM personnel in September - October 2012 concerning the ongoing “Red X” study (GMNHTSA000135917-18; GMNHTSA000135923); (5) “Red X” Project Definition Tree, dated December 13, 2012 (GMNHTSA000135945-952); (6) e-mail communication from the Field Performance Engineer concerning a January 8, 2013 meeting to discuss the progress of the ongoing “Red X” study (GMNHTSA000274234-35); (7) a PowerPoint presentation prepared by the Red X investigator discussing the results of the “Red X” study (GMNHTSA000002688-692); (8) September 2012 e-mail communications related to the initiation of the Red X study (GMNHTSA000274016-17); (9) a meeting invitation with the subject “2005-7 Cobalt Steering Column / Ignition Switch Review 1N16-11 (Blue) & Red X” (GMNHTSA000321784); and (10) an e-mail communication dated October 23, 2012 related to the Red X study (GMNHTSA000321021-24).



88. On what date did GM initiate a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance”?

Response:

GM has produced documents responsive to this request. (GMNHTSA000002693-2703 and GMNHTSA000274234-35.)

These documents include an e-mail communication relating to a study using the “Design for Six Sigma” problem-solving methodology. (GMNHTSA000274234-35.) This e-mail message was sent by the Field Performance Assessment Engineer assigned in August 2011 to move forward with a FPE investigation of a group of crashes in which airbags in model year 2005-2007 Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts. This e-mail message bears a “sent date” of “2012-12-14” and references a meeting on “2013-01-08” and a “12/4/12 brainstorming session.”

89. Identify each individual involved with a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance.”

Response:

The following individuals were involved with a study using the “Design for Six Sigma” problem-solving methodology to ‘better understand[] the differences in observed torque performance”:

<b>Name</b>	<b>Title</b>
Terry Connolly	Director – Suspension, Structures, Steering
Jeff Konchen	Ignition Cylinder Lead
Brian Stouffer	Field Performance Assessment Engineer (retired)
Doug Wachtel	Senior Manager of Product Investigations (retired)
John Zuzelski	Global Steering System GSSLT

90. What were the results of the “Design for Six Sigma” study?

Response:

A PowerPoint presentation (GMNHTSA000002693-2703) discusses the results of the “Design for Six Sigma” study.

91. Provide all documents related to the “Design for Six Sigma” study, including all documents related to the reasons that GM initiated the study.

Response:

GM has produced documents responsive to this request, including but not limited to the following: (1) an e-mail communication from the Field Performance Assessment Engineer relating to a study using the “Design for Six Sigma” problem-solving methodology; this e-mail message bears a “sent date” of “2012-12-14” and references a meeting on “2013-01-08” and a “12/4/12 brainstorming session”

(GMNHTSA000274234-35) and (2) the “Design for Six Sigma” study (GMNHTSA000002693-2703).

**The following requests relate to statements made by GM in the 2013 portion of the chronology (Attachment B) included in GM’s February 24, 2014 Part 573 Report:**

92. How did the Field Performance Assessment Engineer learn, in late April 2013, “that the torque performance of a GM service part ignition switch purchased after 2010 differed substantially from that of an ignition switch that was original equipment installed on a 2005 Cobalt”? Provide all related documents.

Response:

The Field Performance Assessment Engineer provided deposition testimony in *Melton v. General Motors* relevant to how he learned that the torque performance of a GM service part ignition switch purchased after 2010 differed from that of an ignition switch that was original equipment installed on a 2005 Cobalt. (GMNHTSA000146686-6815, at 6712-6713.)

The Field Performance Assessment Engineer also learned of additional information relating to the torque on the replacement ignition switch two days before his deposition in the Melton matter.

The Field Performance Assessment Engineer tested the torque performance on a number of ignition switches during the course of his investigation into the ignition switch issue. That testing showed a dip in torque performance for the 2005 and 2006 model year switches, followed by a slight trend upwards in torque performance for the 2007 to 2009 switches. It was unclear, however, if the upward

trend in torque performance for the 2007 to 2009 switches was significant because the range of torque performance values from the testing overlapped with the torque performance values from earlier years.

In the Fall of 2013, the Field Performance Assessment Engineer received a report by outside consulting engineers at Exponent which demonstrated a change in torque performance over time and that ignition switches from more recent years appeared to be different from earlier switches. The Field Performance Assessment Engineer subsequently contacted Delphi to determine if there had been a change in the ignition switch and learned on or about October 29, 2013, by e-mail from Gary Greib at Delphi, that a change record had been issued for the ignition switch.

GM has produced e-mail correspondence dated February 10, 2014, in which the Field Performance Assessment Engineer stated that he “contacted Delphi in early October 2013 after receiving Subbiah’s [sic] report that confirmed the ignition switch had been changed.” (GMNHTSA000276112.) The e-mail also stated that the Field Performance Assessment Engineer sent “Gary [Greib, a Delphi employee] an e-mail asking for any details on switch modifications. I let him know about Subbiah’s [sic] findings. It took a week or so for Delphi to do the research that confirmed the switch had been changed (spring and plunger). This included the sign-off document from Ray D. that you and I received [sic]. . . . In early October 2013 the findings from Exponent were provided to me that allowed the investigation [sic] to proceed.”

93. Provide all documents related to the statement that the Field Performance Assessment Engineer “also learned that others had observed and

documented that the detent plunger and spring used on the service part switch differed from those used on the original equipment switch installed on the 2005 Cobalt.”

Response:

The Field Performance Assessment Engineer provided deposition testimony in *Melton v. General Motors* relevant to how he learned that the torque performance of a GM service part ignition switch purchased after 2010 differed from that of an ignition switch that was original equipment installed on a 2005 Cobalt. (GMNHTSA000146686-6815, at 6712-6713.)

GM has produced documents responsive to this request, including but not limited to the following: On March 31, 2014, GM produced a December 3, 2013 e-mail with the subject heading “Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” attaching documents “Change Approval Longer Spring & Plunger 57128dat.doc” and “Ignition Switch Torque Requirements.pptx.” (GMNHTSA000223512-523.)

GM produced e-mail correspondence dated February 10, 2014, sent by the Field Performance Assessment Engineer. (GMNHTSA000276112.) In that e-mail, the Field Performance Assessment Engineer stated that he “contacted Delphi in early October 2013 after receiving Subbiah’s [sic] report that confirmed the ignition switch had been changed.” The e-mail also stated that the Field Performance Assessment Engineer sent “Gary [Greib, a Delphi employee] an e-mail asking for any details on switch modifications. I let him know about Subbiah’s [sic] findings. It

took a week or so for Delphi to do the research that confirmed the switch had been changed (spring and plunger). This included the sign-off document from Ray D. that you and I reviewed [sic]. . . . In early October 2013 the findings from Exponent were provided to me that allowed the investigation [sic] to proceed.”

94. On what date did GM retain “outside engineering resources to conduct a comprehensive ignition switch survey and assessment”? Identify the “outside engineering resources” GM retained.

Response:

GM retained outside engineering resources to conduct a comprehensive ignition switch survey and assessment in the spring of 2013. One of the outside engineers who worked on this matter was Subbaiah V. Malladi, Ph.D., P.E., the Principal Engineer and Chief Technical Officer of Exponent, an engineering and scientific consulting firm.

GM has produced documents responsive to this request, including but not limited to an e-mail regarding discussions with Delphi and with outside engineering resources in 2013. (GMNHTSA000276112.)

95. Provide all documents related to the “comprehensive ignition switch survey and assessment” performed by outside engineering resources.

Response:

This request calls for the production of materials that may be subject to the attorney-client and/or work product privileges. GM does not waive, and reserves all

rights as to any applicable privileges, including the attorney-client and work product privileges. One of the documents that relates to the “comprehensive ignition switch survey and assessment” performed by outside engineering resources was a PowerPoint presentation prepared by Subbaiah V. Malladi, Ph.D., P.E., the Principal Engineer and Chief Technical Officer of Exponent. (GMNHTSA000002853-877.)

96. Describe all communications GM had with its supplier regarding changes to the ignition switch in vehicles subject to the recalls, identify all individuals involved in those communications (whether at GM or its supplier), and provide all related documents.

Response:

GM produced documents related to an October 29, 2013 e-mail exchange between GM and its supplier. (GMNHTSA000002881-2903.) GM produced additional documents related to changes to the ignition switch in vehicles subject to the recalls. (GMNHTSA000257777-258204.) GM also produced an e-mail regarding discussions with Delphi and with outside engineering resources in 2013. (GMNHTSA000276112.)

The following individuals may have been involved in communications between GM and its supplier regarding changes to the ignition switch in vehicles subject to the recalls:

Name	Title
Ray DeGiorgio	Design Release Engineer
Gary Greib	Delphi
Eduardo Rodriguez	Delphi
Brian Stouffer	Field Performance Assessment Engineer (retired)

97. Provide all documents GM received on October 29, 2013 from its supplier “showing that changes had in fact been made to the detent plunger and spring late in the 2006 calendar year.”

Response:

GM has produced documents related to an October 29, 2013 e-mail exchange between the Field Performance Assessment Engineer assigned in 2011 and the ignition switch supplier. (GMNHTSA000002881-2903.)

98. Describe the “[t]esting and analysis” that “further determined that whether a key moves from the ‘run’ to ‘accessory’ position and how that key movement affects airbag deployment depends on a number of factors,” including the date(s) that the “[t]esting and analysis” was initiated and concluded, and provide all documents related to that “[t]esting and analysis.”

Response:

GM has produced documents responsive to this request, including but not limited to the following:

- slides regarding mechanical solutions for ignition switches (GMNHTSA000282956-57);
- spreadsheet regarding Ignition Switch Field Testing (GMNHTSA000283936);
- e-mail regarding 2012 and 2013 discussions between FPE investigators and GM engineers relating to mechanical solutions for the ignition switch



(GMNHTSA000282943-45; GMNHTSA000282946-949; and  
GMNHTSA000282954-55);

- e-mail regarding 2013 discussion between an FPE investigator and GM engineer regarding added switch capacity for Cobalt (GMNHTSA000283474);
- a spreadsheet regarding May 2012 ignition switch field testing (GMNHTSA000283936);
- an e-mail regarding a 2013 discussion between an FPE investigator and GM engineer regarding added switch capacity for the Cobalt (GMNHTSA000283474);
- a 2013 PowerPoint presentation regarding mechanical solutions and ignition switch review (GMNHTSA000282956-57);
- PowerPoint presentations that were provided to the EFADC in December 2013 and January 2014, submitted to NHTSA on March 5, 2014;
- a spreadsheet regarding May 2012 ignition switch field testing (GMNHTSA000283936); and
- a 2013 PowerPoint presentation regarding mechanical solutions and ignition switch review (GMNHTSA000282956-57).

99. On what date did the investigating engineers involved in GM's Field Performance Evaluation investigation present their findings and proposed solutions to the FPERC?

Response:

On December 2, 2013, a meeting was attended by, possibly among others, Carmen Benavides, Maureen Foley-Gardner, Mark Johnson, Bill Kemp, Gay Kent, John Murawa, Brian Stouffer, Doug Wachtel, and Liz Zatina. The attendees discussed the possibility of recommending to the FPERC that a safety recall be issued, and in so doing, discussed prior crashes, fatalities, and available warranty information. At the end of the meeting, the group agreed to recommend a safety recall to FPERC. On December 16, 2013, an official FPERC meeting was held at which the FPERC decided to recommend a safety recall for the Cobalt, and the issue proceeded to the EFADC.

100. What findings and proposed solutions did the investigating engineers involved in GM's Field Performance Evaluation investigation present to the FPERC? Identify all individuals involved and provide all related documents.

Response:

The findings and proposed solutions of the FPE investigation were discussed in a PowerPoint presentation. (GMNHTSA000002735-2822.) In addition, on March 25, 2014, GM submitted the following list of individuals who were involved in the presentation to the FPERC:

<b>Name</b>	<b>Title</b>
Carmen Benavides	Director, Product Investigations
Maureen Foley-Gardner	Field Performance Evaluation Director
Mark Johnson	Senior Manager, Internal Investigations
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Brian Stouffer	Field Performance Assessment Engineer (retired)

101. Did the FPERC request further analysis? If so, describe the further analysis it requested, the reasons for the request, and provide all related documents.

Response:

The FPERC asked the Field Performance Assessment Engineer to obtain PPAP data.

GM has produced documents responsive to this request, including but not limited to the following: (1) a December 2, 2013 e-mail with the subject heading “Cobalt/HHR/Ion Airbag Non-Deploy” (GMNHTSA000324020); (2) a December 3, 2013, e-mail with the subject heading “Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” attaching documents “Change Approval Longer Spring & Plunger 57128dat.doc” and “Ignition Switch Torque Requirements.pptx” (GMNHTSA000223512-523); (3) a December 6, 2013 e-mail with the subject heading “FW: Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” (GMNHTSA000223653-660); (4) a December 6, 2013 e-mail with the subject heading “Cobalt and GMT900 Airbag Reviews” (GMNHTSA000316157); and (5) a December 10, 2013 e-mail with the subject heading “FW: Request for Information Chevrolet Cobalt Ignition Switch P/N 10392423” (GMNHTSA000223779-787). GM produced additional responsive documents to this request. (GMNHTSA000316137-6295.)

102. On what date did the FPERC present recommendations to the Executive Field Action Decision Committee? Identify all individuals involved and provide all related documents.

Response:

The FPERC presented recommendations to the EFADC on December 17, 2013.

The following individuals were involved with the FPERC's presentation of recommendations to the EFADC:

<b>Name</b>	<b>Title</b>
Carmen Benavides	Director, Product Investigations
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering
Maureen Foley-Gardner	Field Performance Evaluation Director
Sherry Hickock	Supplier Quality
Gerald Johnson	Vice President, North American Manufacturing
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Steven Kiefer	Vice President, Global Powertrain
John Murawa	Field Performance Assessment Engineer
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality

103. What recommendations did the FPERC present to the Executive Field Action Decision Committee?

Response:

The recommendations presented to the EFADC are discussed in a PowerPoint presentation. (GMNHTSA000218132-36.)

104. What “[f]actual questions were raised” at the December 17, 2013 meeting with the Executive Field Action Decision Committee “that required further

analysis? What “further analysis” took place? Identify the individuals involved in the “further analysis,” and provide all related documents.

Response:

The factual questions raised at the December 17, 2013 meeting with the EFADC are discussed in the PowerPoint presentation that was provided to the EFADC on January 31, 2014. These documents were submitted to NHTSA on March 5, 2014.

The following individual was involved in the “further analysis” coming out of the December 17, 2013 meeting with the EFADC:

Name	Title
John Murawa	Field Performance Assessment Engineer

Certain attendees at the December 17, 2013 EFADC meeting raised questions about the supporting evidence as to whether there was a causal connection between the defective ignition switch and the non-deployment of airbags, including as to the physics associated with the weight of the key ring and what force would be required to unintentionally move the key. The Vice President, Global Vehicle Engineering, asked the Field Performance Assessment Engineer why the post-crash SDM data downloaded from model year 2005-2007 Cobalts and a model year 2007 G5 showed that eight of the vehicles in large frontal crashes with airbag non-deployments were recorded as being in “run” mode.

105. Describe the findings of the “further analysis” presented at a January 31, 2014 meeting with the Executive Field Action Decision Committee, and provide all related documents.

Response:

A description of the findings of the “further analysis” presented at the January 31, 2014 meeting with the EFADC is provided in the PowerPoint presentation that was presented to the EFADC on January 31, 2014. This document was submitted to NHTSA on March 5, 2014.

106. With respect to the defect that is the subject of this recall, what model and model year vehicles did the Executive Field Action Decision Committee discuss at the December 17, 2013 meeting? If any vehicles other than MY 2005-2007 Chevrolet Cobalt and MY 2007 Pontiac G5 vehicles were discussed, describe in detail the content of those discussions, and provide all related documents.

Response:

The PowerPoint slide deck used at the EFADC meeting on December 17, 2013, included reference to all model years of the Chevrolet Cobalt, Pursuit (Canada only), Pontiac G5, Saturn Ion, and the Chevrolet HHR. Of these, GM is aware that the Cobalt and Pontiac G5 were discussed at the meeting. Other vehicles, such as the Ion and the HHR, may have also been discussed. This slide deck was submitted to NHTSA on March 5, 2014.

107. With respect to the defect that is the subject of this recall, what model and model year vehicles did the Executive Field Action Decision Committee discuss at the January 31, 2014 meeting? If any vehicles other than the vehicles subject to this recall were discussed, described in detail the content of those discussions, and provide all related documents.

Response:

The PowerPoint slide deck used at the EFADC meeting on January 31, 2014, included reference to all model years of the Chevrolet Cobalt, Pursuit (Canada only), Pontiac G5, Saturn Ion, and the Chevrolet HHR. It also references the Lacrosse, Malibu, Cruze, Verano, Impala, Traverse, Camaro, Regal, Spark, Equinox, Sonic, Volt, CTS, NG, SRX, Colorado/Canyon, Equinox, Tahoe, Cadillac ATS, and Cadillac CTS. Of these, GM is aware that the Cobalt and Pontiac G5 were discussed at the meeting. Other vehicles, such as the Ion and the HHR, may have also been discussed. This slide deck was submitted to NHTSA on March 5, 2014.

**GM'S GENERAL STATEMENT REGARDING LIMITATIONS AND OTHER  
QUALIFICATIONS TO ITS RESPONSES**

1. By these responses, GM does not waive, and reserves all rights as to any applicable privileges, including the attorney-client and work product privileges.

2. GM's responses are based upon the information it has reviewed to date and reflect its current information and belief. GM will continue to search for responsive documents and information in the places that such materials are reasonably likely to be located. If GM's search identifies additional facts or other non-privileged information responsive to any of the March 4, 2014 Special Order's requests, GM will supplement, modify, or amend its responses and produce responsive, non-privileged documents.

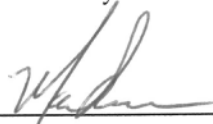
3. With respect to the definition of "GM" as set forth in the March 4, 2014 Special Order, the relationship between GM and General Motors Corporation is defined by the Sale Approval Order issued by the United States Bankruptcy Court on July 5, 2009, and the Amended and Restated Master Sale and Purchase Agreement incorporated therein.



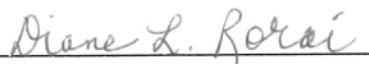
## CERTIFICATION

1. I am Executive Vice President of Global Product Development, Purchasing, and Supply Chain for General Motors Company ("GM"). I have been authorized to execute this certification on GM's behalf.
2. After receiving the National Highway Traffic Safety Administration's Special Order dated March 4, 2014 ("Special Order"), GM personnel and outside counsel were directed to perform an expeditious and diligent search of GM's records and data in a manner reasonably calculated to locate information and documents responsive to the requests in the Special Order. This search includes interviewing GM personnel most likely to have information responsive to the Special Order's requests.
3. GM's search for information and documents responsive to certain requests in the Special Order is not yet finished. Based on the search that has been completed to date, upon information and belief, the written responses contained in the GM's Supplemental, Restated, and Consolidated Response to March 4, 2014 Special Order are truthful and accurate.
4. GM is still collecting and reviewing information and documents to determine whether they are responsive to certain requests in the Special Order.
5. As GM identifies additional documents or other information responsive to requests in the Special Order, it will supplement or amend its production and responses in a timely manner.

Based on the search completed to date, I certify under the penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

  
 \_\_\_\_\_  
 Mark Reuss

Subscribed and sworn to before me  
 on this 25<sup>th</sup> day of April, 2014.

  
 \_\_\_\_\_

**DIANE L. RORAI**  
 Notary Public, State of Michigan  
 County of Oakland  
 My Commission Expires 10-21-2018  
 Acting in the County of MACOMB

**TABLE OF KEY INSERTS PROVIDED**

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	10/10/2005
2005	Chevrolet	Cobalt	10/11/2005
2005	Chevrolet	Cobalt	10/17/2005
2005	Chevrolet	Cobalt	10/17/2005
2005	Saturn	ION	10/21/2005
2005	Chevrolet	Cobalt	10/24/2005
2005	Chevrolet	Cobalt	10/25/2005
2005	Chevrolet	Cobalt	10/27/2005
2006	Chevrolet	Cobalt	11/02/2005
2005	Chevrolet	Cobalt	11/03/2005
2006	Saturn	ION	11/03/2005
2005	Chevrolet	Cobalt	11/04/2005
2005	Chevrolet	Cobalt	11/11/2005
2005	Chevrolet	Cobalt	11/14/2005
2004	Saturn	ION	11/15/2005
2005	Chevrolet	Cobalt	11/16/2005
2005	Chevrolet	Cobalt	11/16/2005
2005	Chevrolet	Cobalt	11/18/2005
2005	Chevrolet	Cobalt	11/21/2005
2005	Chevrolet	Cobalt	11/22/2005
2005	Chevrolet	Cobalt	11/22/2005
2005	Saturn	ION	11/23/2005
2005	Chevrolet	Cobalt	11/25/2005
2003	Saturn	ION	11/28/2005
2005	Chevrolet	Cobalt	12/01/2005
2005	Chevrolet	Cobalt	12/03/2005
2003	Saturn	ION	12/05/2005
2005	Saturn	ION	12/05/2005
2005	Chevrolet	Cobalt	12/06/2005
2005	Saturn	ION	12/06/2005
2005	Chevrolet	Cobalt	12/07/2005
2005	Chevrolet	Cobalt	12/08/2005
2005	Chevrolet	Cobalt	12/13/2005
2005	Saturn	ION	12/13/2005
2005	Saturn	ION	12/14/2005
2005	Chevrolet	Cobalt	12/15/2005
2005	Chevrolet	Cobalt	12/15/2005
2005	Chevrolet	Cobalt	12/16/2005
2004	Saturn	ION	12/16/2005
2005	Chevrolet	Cobalt	12/20/2005
2005	Chevrolet	Cobalt	12/20/2005

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	12/20/2005
2005	Saturn	ION	12/20/2005
2005	Chevrolet	Cobalt	12/22/2005
2006	Saturn	ION	12/23/2005
2005	Chevrolet	Cobalt	12/27/2005
2005	Chevrolet	Cobalt	12/27/2005
2006	Saturn	ION	12/27/2005
2005	Chevrolet	Cobalt	12/29/2005
2005	Chevrolet	Cobalt	12/30/2005
2005	Chevrolet	Cobalt	12/30/2005
2004	Saturn	ION	12/30/2005
2005	Chevrolet	Cobalt	01/03/2006
2005	Saturn	ION	01/03/2006
2005	Chevrolet	Cobalt	01/04/2006
2005	Chevrolet	Cobalt	01/05/2006
2004	Saturn	ION	01/06/2006
2006	Saturn	ION	01/07/2006
2005	Chevrolet	Cobalt	01/09/2006
2005	Saturn	ION	01/09/2006
2005	Chevrolet	Cobalt	01/12/2006
2005	Chevrolet	Cobalt	01/13/2006
2003	Saturn	ION	01/13/2006
2005	Saturn	ION	01/13/2006
2005	Chevrolet	Cobalt	01/14/2006
2005	Chevrolet	Cobalt	01/18/2006
2005	Chevrolet	Cobalt	01/18/2006
2006	Chevrolet	Cobalt	01/19/2006
2005	Chevrolet	Cobalt	01/20/2006
2006	Chevrolet	Cobalt	01/20/2006
2005	Chevrolet	Cobalt	01/23/2006
2005	Chevrolet	Cobalt	01/23/2006
2005	Chevrolet	Cobalt	01/25/2006
2006	Saturn	ION	01/25/2006
2005	Chevrolet	Cobalt	01/26/2006
2005	Chevrolet	Cobalt	01/26/2006
2005	Chevrolet	Cobalt	01/26/2006
2006	Saturn	ION	01/26/2006
2005	Chevrolet	Cobalt	01/27/2006
2006	Saturn	ION	01/27/2006
2005	Chevrolet	Cobalt	01/30/2006
2005	Chevrolet	Cobalt	01/30/2006
2005	Chevrolet	Cobalt	01/30/2006

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	01/30/2006
2005	Chevrolet	Cobalt	01/31/2006
2005	Chevrolet	Cobalt	01/31/2006
2005	Chevrolet	Cobalt	02/01/2006
2005	Chevrolet	Cobalt	02/01/2006
2005	Chevrolet	Cobalt	02/02/2006
2005	Chevrolet	Cobalt	02/02/2006
2006	Chevrolet	Cobalt	02/02/2006
2005	Chevrolet	Cobalt	02/07/2006
2005	Chevrolet	Cobalt	02/09/2006
2005	Chevrolet	Cobalt	02/10/2006
2005	Chevrolet	Cobalt	02/11/2006
2006	Chevrolet	Cobalt	02/13/2006
2005	Chevrolet	Cobalt	02/13/2006
2006	Saturn	ION	02/13/2006
2003	Saturn	ION	02/13/2006
2006	Chevrolet	Cobalt	02/14/2006
2005	Chevrolet	Cobalt	02/17/2006
2005	Chevrolet	Cobalt	02/17/2006
2005	Chevrolet	Cobalt	02/17/2006
2005	Saturn	ION	02/17/2006
2006	Pontiac	Solstice	02/22/2006
2006	Pontiac	Solstice	02/22/2006
2006	Pontiac	Solstice	02/22/2006
2005	Chevrolet	Cobalt	02/28/2006
2005	Chevrolet	Cobalt	03/03/2006
2006	Chevrolet	Cobalt	03/06/2006
2005	Chevrolet	Cobalt	03/08/2006
2005	Chevrolet	Cobalt	03/10/2006
2006	Saturn	ION	03/10/2006
2005	Chevrolet	Cobalt	03/13/2006
2006	Saturn	ION	03/14/2006
2005	Chevrolet	Cobalt	03/15/2006
2006	Saturn	ION	03/28/2006
2006	Chevrolet	Cobalt	03/31/2006
2006	Saturn	ION	04/03/2006
2005	Chevrolet	Cobalt	04/04/2006
2005	Chevrolet	Cobalt	04/06/2006
2005	Saturn	ION	04/06/2006
2005	Chevrolet	Cobalt	04/07/2006
2006	Chevrolet	Cobalt	04/07/2006
2005	Saturn	ION	04/12/2006

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	04/13/2006
2006	Chevrolet	Cobalt	04/14/2006
2005	Chevrolet	Cobalt	04/14/2006
2005	Chevrolet	Cobalt	04/17/2006
2005	Chevrolet	Cobalt	04/20/2006
2005	Chevrolet	Cobalt	04/20/2006
2006	Saturn	ION	04/25/2006
2006	Chevrolet	Cobalt	04/26/2006
2005	Chevrolet	Cobalt	04/28/2006
2006	Pontiac	Solstice	05/01/2006
2005	Chevrolet	Cobalt	05/02/2006
2005	Saturn	ION	05/03/2006
2005	Saturn	ION	05/05/2006
2006	Chevrolet	Cobalt	05/08/2006
2005	Chevrolet	Cobalt	05/09/2006
2006	Saturn	ION	05/10/2006
2005	Chevrolet	Cobalt	05/11/2006
2005	Chevrolet	Cobalt	05/15/2006
2006	Chevrolet	Cobalt	05/17/2006
2003	Saturn	ION	05/18/2006
2005	Chevrolet	Cobalt	05/19/2006
2006	Saturn	ION	05/24/2006
2006	Chevrolet	Cobalt	05/25/2006
2006	Chevrolet	Cobalt	06/01/2006
2006	Saturn	ION	06/05/2006
2005	Chevrolet	Cobalt	06/09/2006
2006	Saturn	ION	06/13/2006
2005	Chevrolet	Cobalt	06/14/2006
2005	Saturn	ION	06/15/2006
2005	Chevrolet	Cobalt	06/22/2006
2006	Chevrolet	Cobalt	06/26/2006
2004	Saturn	ION	06/26/2006
2005	Saturn	ION	07/06/2006
2004	Saturn	ION	07/07/2006
2006	Saturn	ION	07/07/2006
2005	Saturn	ION	07/11/2006
2005	Chevrolet	Cobalt	07/13/2006
2005	Saturn	ION	07/14/2006
2005	Chevrolet	Cobalt	07/17/2006
2006	Saturn	ION	07/17/2006
2005	Chevrolet	Cobalt	07/21/2006
2005	Chevrolet	Cobalt	07/24/2006

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	07/24/2006
2005	Saturn	ION	07/28/2006
2006	Chevrolet	HHR	07/28/2006
2005	Saturn	ION	07/29/2006
2005	Saturn	ION	07/31/2006
2006	Saturn	ION	07/31/2006
2005	Saturn	ION	08/05/2006
2005	Saturn	ION	08/07/2006
2006	Saturn	ION	08/07/2006
2006	Saturn	ION	08/07/2006
2005	Chevrolet	Cobalt	08/10/2006
2006	Chevrolet	Cobalt	08/11/2006
2006	Saturn	ION	08/11/2006
2005	Chevrolet	Cobalt	08/14/2006
2006	Chevrolet	Cobalt	08/21/2006
2005	Chevrolet	Cobalt	08/22/2006
2005	Saturn	ION	08/23/2006
2006	Chevrolet	Cobalt	08/24/2006
2005	Chevrolet	Cobalt	08/24/2006
2006	Saturn	ION	08/24/2006
2006	Chevrolet	Cobalt	08/28/2006
2006	Chevrolet	HHR	08/29/2006
2005	Saturn	ION	08/31/2006
2006	Saturn	ION	09/02/2006
2005	Chevrolet	Cobalt	09/05/2006
2006	Saturn	ION	09/05/2006
2005	Chevrolet	Cobalt	09/07/2006
2005	Chevrolet	Cobalt	09/07/2006
2005	Saturn	ION	09/09/2006
2006	Chevrolet	HHR	09/12/2006
2005	Chevrolet	Cobalt	09/16/2006
2005	Saturn	ION	09/18/2006
2005	Chevrolet	Cobalt	09/25/2006
2006	Chevrolet	Cobalt	09/25/2006
2005	Saturn	ION	09/25/2006
2006	Saturn	ION	09/27/2006
2005	Chevrolet	Cobalt	09/29/2006
2005	Chevrolet	Cobalt	09/30/2006
2006	Saturn	ION	10/02/2006
2006	Chevrolet	HHR	10/03/2006
2005	Chevrolet	Cobalt	10/04/2006
2005	Chevrolet	Cobalt	10/06/2006

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2006	Saturn	ION	10/07/2006
2005	Chevrolet	Cobalt	10/12/2006
2006	Saturn	ION	10/13/2006
2005	Chevrolet	Cobalt	10/16/2006
2005	Chevrolet	Cobalt	10/16/2006
2004	Saturn	ION	10/16/2006
2005	Chevrolet	Cobalt	10/17/2006
2005	Chevrolet	Cobalt	10/24/2006
2005	Chevrolet	Cobalt	10/25/2006
2006	Saturn	ION	10/26/2006
2005	Saturn	ION	10/27/2006
2005	Chevrolet	Cobalt	10/30/2006
2006	Chevrolet	Cobalt	10/31/2006
2006	Chevrolet	Cobalt	11/01/2006
2005	Saturn	ION	11/02/2006
2007	Saturn	ION	11/09/2006
2005	Chevrolet	Cobalt	11/15/2006
2007	Saturn	ION	11/15/2006
2005	Chevrolet	Cobalt	11/16/2006
2006	Saturn	ION	11/16/2006
2004	Saturn	ION	11/20/2006
2005	Saturn	ION	11/24/2006
2006	Chevrolet	Cobalt	11/29/2006
2005	Chevrolet	Cobalt	12/01/2006
2006	Chevrolet	HHR	12/06/2006
2005	Chevrolet	Cobalt	12/07/2006
2005	Saturn	ION	12/07/2006
2006	Chevrolet	Cobalt	12/09/2006
2005	Chevrolet	Cobalt	12/11/2006
2006	Chevrolet	HHR	12/12/2006
2005	Saturn	ION	12/13/2006
2006	Chevrolet	Cobalt	12/15/2006
2007	Saturn	ION	12/18/2006
2006	Saturn	ION	12/21/2006
2006	Chevrolet	HHR	12/21/2006
2006	Chevrolet	Cobalt	12/23/2006
2006	Chevrolet	HHR	12/26/2006
2005	Chevrolet	Cobalt	12/27/2006
2005	Chevrolet	Cobalt	01/05/2007
2006	Saturn	ION	01/05/2007
2006	Saturn	ION	01/09/2007
2006	Saturn	ION	01/09/2007

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2006	Saturn	ION	01/10/2007
2006	Chevrolet	Cobalt	01/12/2007
2007	Chevrolet	Cobalt	01/12/2007
2005	Chevrolet	Cobalt	01/16/2007
2006	Chevrolet	HHR	01/16/2007
2005	Chevrolet	Cobalt	01/17/2007
2005	Saturn	ION	01/18/2007
2005	Chevrolet	Cobalt	01/19/2007
2006	Chevrolet	HHR	01/19/2007
2005	Chevrolet	Cobalt	01/25/2007
2006	Chevrolet	Cobalt	01/26/2007
2006	Chevrolet	Cobalt	01/29/2007
2004	Saturn	ION	01/29/2007
2006	Chevrolet	HHR	01/30/2007
2005	Chevrolet	Cobalt	02/01/2007
2006	Saturn	ION	02/10/2007
2006	Saturn	ION	02/14/2007
2006	Saturn	ION	02/14/2007
2006	Saturn	ION	02/21/2007
2005	Chevrolet	Cobalt	02/28/2007
2006	Chevrolet	HHR	03/02/2007
2006	Chevrolet	Cobalt	03/05/2007
2005	Chevrolet	Cobalt	03/08/2007
2007	Pontiac	G5	03/08/2007
2006	Saturn	ION	03/09/2007
2006	Chevrolet	Cobalt	03/10/2007
2006	Chevrolet	Cobalt	03/20/2007
2007	Saturn	ION	03/21/2007
2006	Saturn	ION	03/26/2007
2007	Saturn	ION	03/27/2007
2006	Chevrolet	HHR	03/28/2007
2006	Chevrolet	Cobalt	03/30/2007
2006	Saturn	ION	03/31/2007
2005	Chevrolet	Cobalt	04/03/2007
2006	Chevrolet	Cobalt	04/06/2007
2006	Chevrolet	Cobalt	04/07/2007
2007	Saturn	ION	04/10/2007
2006	Chevrolet	HHR	04/10/2007
2006	Saturn	ION	04/17/2007
2005	Chevrolet	Cobalt	04/18/2007
2006	Chevrolet	HHR	04/20/2007
2005	Chevrolet	Cobalt	04/23/2007



<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2005	Chevrolet	Cobalt	04/25/2007
2005	Chevrolet	Cobalt	05/01/2007
2006	Chevrolet	Cobalt	05/02/2007
2006	Saturn	ION	05/08/2007
2005	Saturn	ION	05/11/2007
2005	Chevrolet	Cobalt	05/16/2007
2005	Saturn	ION	05/17/2007
2005	Saturn	ION	05/23/2007
2006	Chevrolet	Cobalt	05/24/2007
2005	Saturn	ION	06/07/2007
2006	Chevrolet	HHR	06/08/2007
2006	Saturn	ION	06/13/2007
2006	Chevrolet	HHR	06/14/2007
2006	Chevrolet	Cobalt	06/18/2007
2007	Chevrolet	Cobalt	06/28/2007
2006	Saturn	ION	06/30/2007
2007	Pontiac	Solstice	07/05/2007
2007	Saturn	ION	07/05/2007
2006	Chevrolet	HHR	07/05/2007
2006	Chevrolet	HHR	07/05/2007
2006	Saturn	ION	07/11/2007
2005	Chevrolet	Cobalt	07/12/2007
2005	Chevrolet	Cobalt	07/16/2007
2006	Chevrolet	HHR	07/20/2007
2007	Chevrolet	HHR	07/20/2007
2006	Chevrolet	HHR	07/23/2007
2005	Chevrolet	Cobalt	07/24/2007
2006	Chevrolet	Cobalt	07/25/2007
2007	Saturn	ION	07/26/2007
2006	Saturn	ION	07/26/2007
2007	Saturn	ION	07/28/2007
2006	Saturn	ION	07/30/2007
2006	Saturn	ION	08/02/2007
2006	Saturn	ION	08/02/2007
2006	Saturn	ION	08/02/2007
2006	Saturn	ION	08/03/2007
2006	Saturn	ION	08/03/2007
2005	Chevrolet	Cobalt	08/04/2007
2007	Saturn	ION	08/08/2007
2006	Saturn	ION	08/10/2007
2006	Chevrolet	Cobalt	08/14/2007
2005	Chevrolet	Cobalt	08/14/2007

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2007	Saturn	ION	08/14/2007
2004	Saturn	ION	08/16/2007
2006	Saturn	ION	08/20/2007
2006	Saturn	ION	08/21/2007
2007	Chevrolet	HHR	08/23/2007
2006	Chevrolet	HHR	08/23/2007
2006	Saturn	ION	08/29/2007
2005	Chevrolet	Cobalt	09/07/2007
2006	Chevrolet	Cobalt	09/12/2007
2005	Saturn	ION	09/12/2007
2006	Saturn	ION	09/14/2007
2006	Chevrolet	Cobalt	09/15/2007
2006	Saturn	ION	09/17/2007
2007	Saturn	ION	09/18/2007
2005	Chevrolet	Cobalt	09/20/2007
2006	Chevrolet	Cobalt	09/24/2007
2006	Saturn	ION	09/24/2007
2006	Chevrolet	HHR	09/24/2007
2006	Saturn	ION	09/28/2007
2005	Saturn	ION	10/04/2007
2005	Saturn	ION	10/05/2007
2006	Chevrolet	HHR	10/11/2007
2007	Saturn	ION	10/12/2007
2006	Saturn	ION	10/15/2007
2006	Chevrolet	Cobalt	10/16/2007
2005	Chevrolet	Cobalt	10/16/2007
2007	Saturn	ION	10/19/2007
2005	Saturn	ION	11/07/2007
2006	Chevrolet	Cobalt	11/14/2007
2005	Saturn	ION	11/14/2007
2005	Chevrolet	Cobalt	11/15/2007
2006	Chevrolet	Cobalt	11/27/2007
2006	Saturn	ION	12/03/2007
2006	Chevrolet	Cobalt	12/10/2007
2007	Saturn	ION	12/13/2007
2006	Saturn	ION	12/14/2007
2006	Saturn	ION	12/17/2007
2006	Saturn	ION	12/21/2007
2006	Saturn	ION	12/22/2007
2007	Saturn	ION	12/24/2007
2006	Chevrolet	HHR	12/26/2007
2006	Chevrolet	Cobalt	01/03/2008

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2006	Saturn	ION	01/04/2008
2006	Chevrolet	HHR	01/26/2008
2006	Saturn	ION	02/08/2008
2007	Saturn	ION	02/13/2008
2006	Chevrolet	Cobalt	03/03/2008
2007	Saturn	ION	03/06/2008
2006	Chevrolet	HHR	03/10/2008
2005	Saturn	ION	03/24/2008
2007	Saturn	ION	03/24/2008
2005	Chevrolet	Cobalt	03/25/2008
2006	Chevrolet	Cobalt	03/25/2008
2005	Chevrolet	Cobalt	03/26/2008
2007	Saturn	ION	04/07/2008
2006	Chevrolet	Cobalt	04/14/2008
2005	Chevrolet	Cobalt	04/16/2008
2006	Chevrolet	Cobalt	04/16/2008
2005	Chevrolet	Cobalt	04/18/2008
2005	Chevrolet	Cobalt	04/18/2008
2005	Chevrolet	Cobalt	04/21/2008
2006	Chevrolet	Cobalt	04/22/2008
2007	Chevrolet	Cobalt	04/28/2008
2007	Chevrolet	Cobalt	04/28/2008
2006	Chevrolet	Cobalt	05/01/2008
2006	Chevrolet	HHR	05/01/2008
2006	Saturn	ION	05/21/2008
2007	Saturn	ION	06/02/2008
2007	Saturn	ION	06/13/2008
2006	Saturn	ION	06/25/2008
2006	Saturn	ION	07/09/2008
2006	Chevrolet	HHR	07/14/2008
2006	Chevrolet	Cobalt	07/15/2008
2006	Chevrolet	HHR	07/17/2008
2007	Chevrolet	Cobalt	07/22/2008
2006	Saturn	ION	07/22/2008
2006	Chevrolet	Cobalt	08/19/2008
2007	Saturn	ION	10/08/2008
2007	Saturn	ION	10/08/2008
2006	Saturn	ION	11/19/2008
2006	Saturn	ION	11/29/2008
2007	Saturn	ION	12/05/2008
2006	Chevrolet	Cobalt	01/12/2009
2007	Saturn	ION	01/15/2009

<b>MODEL YEAR</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DATE PROVIDED</b>
2006	Chevrolet	HHR	02/03/2009
2007	Saturn	ION	03/02/2009
2007	Saturn	ION	05/06/2009
2007	Saturn	ION	06/09/2009

**RESPONSE TO REQUEST NUMBER FIVE**

GM File #	Case/Matter Category	Case/Matter Name	Make	Model	Model Year	VIN	Vehicle Mileage at Time of Incident	Incident Date	Open Date	Number of Injuries*	Number of Fatalities *	Crash Alleged
473579	NISM	AVERILL, JEAN	Saturn	ION	2004	1G8AJ52F54Z151864	2,000	12/23/2003	01/27/2004	0	1	Yes
511176	Lawsuit	TOWNE, SHARA LYNN	Saturn	ION	2004	1G8AF52F94Z122157	unknown	07/04/2004	05/23/2006	0	1	Yes
489548	Lawsuit	ANDERSON, CANDICE	Saturn	ION	2004	1G8AJ52F14Z167768	26,323	11/15/2004	12/10/2004	1	0	Yes
624610	Lawsuit	ERICKSON, GENE MIKALE	Saturn	ION	2004	1G8AJ52F14Z167768	26,323	11/15/2004	11/16/2006	0	1	Yes
511258	Lawsuit	GEMMILL, MARK R	Saturn	ION	2005	1G8AN12F85Z106819	unknown	06/26/2005	05/25/2006	1	0	Yes
501661	NISM	ROSE, AMBER	Chevrolet	Cobalt	2005	1G1AL12F857595416	unknown	07/29/2005	09/08/2005	0	1	Yes
504880	NISM	COLBERT, DEWALLEN	Chevrolet	Cobalt	2005	1G1AL52F857579918	20,299	11/17/2005	12/09/2005	2	0	Yes
507744	NISM	CARROLL, DELORES	Chevrolet	Cobalt	2005	1G1AL52F357549399	9,992	02/10/2006	02/16/2006	1	0	Yes
509836	Lawsuit	TRUTTMANN, DIANE L	Saturn	ION	2004	1G8AJ52F64Z137164	34,422	02/26/2006	04/13/2006	1	0	Yes
512109	NISM	OAKLEY, JENNIFER	Chevrolet	Cobalt	2005	1G1AK52F157618321	16,606	03/14/2006	06/20/2006	2	0	Yes
513096	Lawsuit	LAMBERT, ERICA LEE	Saturn	ION	2005	1G8AJ52F75Z127437	31,700	06/25/2006	07/20/2006	1	0	Yes
635571	NISM	FOURCADE, JAMIE	Saturn	ION	2005	1G8AJ52F75Z127437	31,700	06/25/2006	7/30/2007	1	0	Yes
778295	Lawsuit (previously listed as an Incident Without Claim)	RIMER, JAYNE (previously listed as RADEMAKER, AMY)	Chevrolet	Cobalt	2005	1G1AK52F657565454	unknown	10/24/2006	11/17/2006	1	1	Yes
633669	Lawsuit	FREI, JAMIE MEDFORD	Chevrolet	Cobalt	2005	1G1AL12F657609040	unknown	12/29/2006	06/05/2007	1	0	Yes
635109	NISM	WHITE, RICKY	Chevrolet	Cobalt	2005	1G1AL12F557637444	71,515	02/06/2007	07/17/2007	1	0	Yes
640068	NISM	REGISTER, ALICIA M	Chevrolet	Cobalt	2006	1G1AK15F467742265	unknown	03/05/2007	11/14/2007	1	0	Yes
636480	NISM	MCCORMICK, ERICA	Chevrolet	Cobalt	2006	1G1AK55F167847403	30,178	08/06/2007	08/21/2007	1	0	Yes
641632	NISM	BIGDA, JENNIFER	Saturn	ION	2004	1G8AZ52F84Z218868	42,000	08/28/2007	12/26/2007	1	0	Yes
638575	NISM	GATHE, LATOYA	Chevrolet	Cobalt	2007	1G1AL55F577245022	8,676	09/26/2007	10/08/2007	1	0	Yes
639456	NISM	BREEN, AMY	Chevrolet	Cobalt	2005	1G1AK52F157564521	unknown	10/16/2007	10/30/2007	0	1	Yes
651139	NISM	GAMAGE, SHARON	Chevrolet	HHR	2006	3GNDA23P36S648475	28,824	03/18/2008	03/31/2008	1	0	Yes
653251	NISM	FREEMAN, JESSICA	Chevrolet	Cobalt	2006	1G1AK55F167854657	52,000	04/05/2008	05/02/2008	1	0	Yes
655121	NISM	WILD, NICOLE	Pontiac	G-5 Pursuit	2007	1G2AN15B877106322	700	05/21/2008	06/06/2008	1	0	Yes
656277	NISM	MCDONALD, TRACY	Chevrolet	Cobalt	2007	1G1AL15F577239827	14,744	05/29/2008	06/25/2008	1	0	Yes
665487504	Customer Complaint	NEALON, MARY ELLEN	Saturn	ION	2006	1G8AY11P66Z149509	24,106	06/23/2008	09/22/2008	1	0	Yes
660660	Incident Without Claim	HARDING, JOSEPH	Chevrolet	Cobalt	2006	1G1AM15B067787193	unknown	09/13/2008	09/24/2008	0	2	Yes
666658	NISM	GRONDONA, IVAN	Chevrolet	Cobalt	2007	1G1AK15F877408306	12,657	12/06/2008	02/12/2009	1	0	Yes
667271	NISM	SACHSE, MARIE	Saturn	ION	2004	1G8AJ52F94Z187038	38,000	02/04/2009	02/18/2009	0	1	Yes
677880	NISM	MORALES, KOURTNEE	Pontiac	G-5 Pursuit	2007	1G2AL18F677358087	27,000	07/10/2009	09/01/2009	1	0	Yes
682178	Lawsuit	LAMBERT, TONYA L	Chevrolet	Cobalt	2005	1G1AL14F157629404	58,000	12/13/2009	12/29/2009	2	0	Yes
684002	NISM	CHANSUTHUS, HASAYA	Chevrolet	Cobalt	2006	1G1AM58B367738475	unknown	12/31/2009	02/03/2010	0	1	Yes

\*These numbers do not include injuries or fatalities of passengers in the backseat.

**RESPONSE TO REQUEST NUMBER FIVE**

GM File #	Case/Matter Category	Case/Matter Name	Make	Model	Model Year	VIN	Vehicle Mileage at Time of Incident	Incident Date	Open Date	Number of Injuries*	Number of Fatalities*	Crash Alleged
699630	NISM	JOHNSTON, CASSANDRA	Saturn	ION	2006	1G8AJ55F46Z210272	89,000	10/10/2010	10/26/2010	1	0	Yes
723116	NISM	STEVENS, ASHLEY	Saturn	ION	2004	1G8AN12F04Z120681	58,000	12/24/2010	01/11/2011	2	0	Yes
723188	NISM	NAJERA, BRENDA	Chevrolet	Cobalt	2006	1G1AL15F967759849	92,000	12/31/2010	01/13/2011	2	0	Yes
725103	NISM	CABAN, LINNET	Chevrolet	HHR	2007	3GNDA23P37S591907	40,000	02/11/2011	03/01/2011	1	0	Yes
725101	NISM	SULLIVAN, BRIDGETTE	Chevrolet	Cobalt	2007	1G1AL55F577322049	65,000	02/13/2011	03/01/2011	1	0	Yes
725541	NISM	STOVER, BROOKE	Chevrolet	Cobalt	2005	1G1AL52F757539975	95,000	02/20/2011	03/11/2011	1	0	Yes
725225	NISM	TOMLIN, REBECCA	Chevrolet	Cobalt	2005	1G1AK52F057564526	72,000	02/21/2011	03/02/2011	1	0	Yes
729809	NISM	PALUSZEK, MARY	Chevrolet	HHR	2007	3GNDA33P87S610036	95,725	05/25/2011	06/20/2011	1	0	Yes
747173	NISM	PREUSS, RYAN	Chevrolet	Cobalt	2005	1G1AL52F757573043	80,000	08/12/2012	09/06/2012	1	0	Yes
751787	NISM	WEAVER, NICOLE	Saturn	ION	2007	1G8AW18F87Z155008	47,660	11/24/2012	12/04/2012	1	0	Yes
762974	NISM	BRASHER, KIMBERLY	Chevrolet	Cobalt	2006	1G1AL15F467816541	86,000	05/20/2013	05/28/2013	1	0	Yes
763152	NISM	PETERSON, ANDREW	Chevrolet	Cobalt	2007	1G1AL55F277368308	98,000	05/27/2013	06/03/2013	1	0	Yes
776962	Incident Without Claim	DUBUC-MARQUIS, DANY	Chevrolet	Cobalt	2007	1G1AM15B677135440	134,346 (km)	06/22/2013	03/04/2014	0	1	Yes
770798	NISM	GILL, MIRANDA	Pontiac	G5-Pursuit	2007	1G2AL15F777135867	100,000+	08/09/2013	10/22/2013	1	0	Yes
1182698557	Customer Complaint	JEFFERSON, CASSANDRA	Saturn	ION	2006	1G8AJ55F26Z180642	97,018	2012	06/05/2013	1	0	Yes
643254	NISM	POWELL, LUCY	Chevrolet	Cobalt	2005	1G1AK52F857627582	56,000	01/19/08	01/31/2008	2	0	Yes
684028	NISM	BIGGERSTAFF, JADE	Chevrolet	Cobalt	2007	1G1AK55F577299004	40,000	01/22/10	02/03/2010	1	0	Yes
723664	NISM	RANDOLPH, BRYAN	Chevrolet	Cobalt	2007	1G1AM15B477269623	32,570	1/9/2011	01/21/2011	1	0	Yes
773867	NISM	DUCOTE, MISHHELL	Saturn	ION	2007	1G8AJ55F47Z197606	86,000	12/18/13	12/26/2013	1	0	Yes
690196	NISM	HILDWEN, MORGAN	Chevrolet	Cobalt	2005	1G1AK12F557657695	38,930	03/01/10	03/16/2010	1	0	Yes
690775	NISM	SCHOMBERG, KATHRYN	Saturn	ION	2005	1G8AW12FX5Z181325	83,000	03/14/10	03/24/2010	1	0	Yes
691020	NISM	DEAN, JOHNNIE	Chevrolet	Cobalt	2006	1G1AK55F067639092	84,733	03/21/10	03/30/2010	1	0	Yes
657195	NISM	CROCI, CHERYL	Chevrolet	Cobalt	2005	1G1AK12F657578911	40,000	06/27/08	6/27/2008	1	0	Yes
658604	NISM	SPRADLIN, KENNETH	Saturn	ION	2007	1G8AZ55F07Z103522	unknown	07/11/08	08/13/2008	2	0	Yes
N/A	N/A	CALSPAN REPORT (SCI CASE NO: CA09022)	Chevrolet	Cobalt	2005	1G1AL52F857 (production sequence omitted)	107,000	4/1/2009	N/A	0	2	Yes

\*These numbers do not include injuries or fatalities of passengers in the backseat.

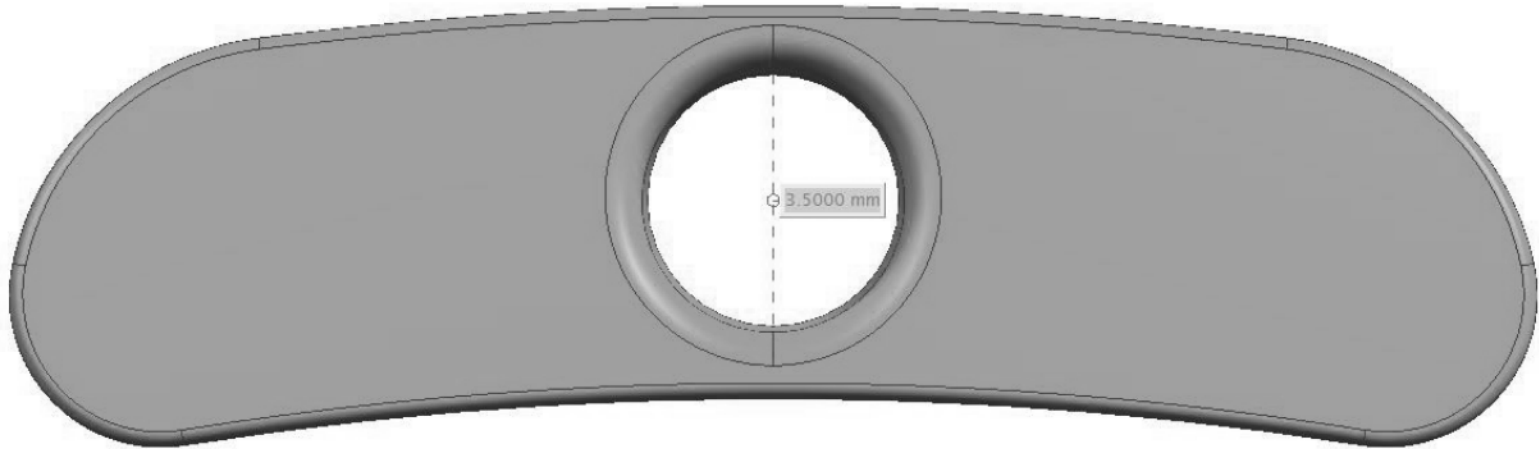
**GM RESPONSE TO REQUEST NUMBER FOUR**

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2003	Saturn	Ion	0	0
2004	Saturn	Ion	4	4
2005	Saturn	Ion	2	2
2005	Chevrolet	Cobalt	13	3
2006	Saturn	Ion	3	0
2006	Chevrolet	Cobalt	8	0
2006	Chevrolet	HHR	1	0
2006	Pontiac	Solstice	0	0
2007	Saturn	Ion	3	0
2007	Chevrolet	Cobalt	8	0
2007	Chevrolet	HHR	2	0
2007	Saturn	Sky	0	0
2007	Pontiac	G5	3	0
2007	Pontiac	Solstice	0	0

\* The response to Request 4(c) includes NISMs, incidents without claims, customer complaint files and a NHTSA SCI Report. It does not include lawsuits.

EWO 521309

PART #: 15842334





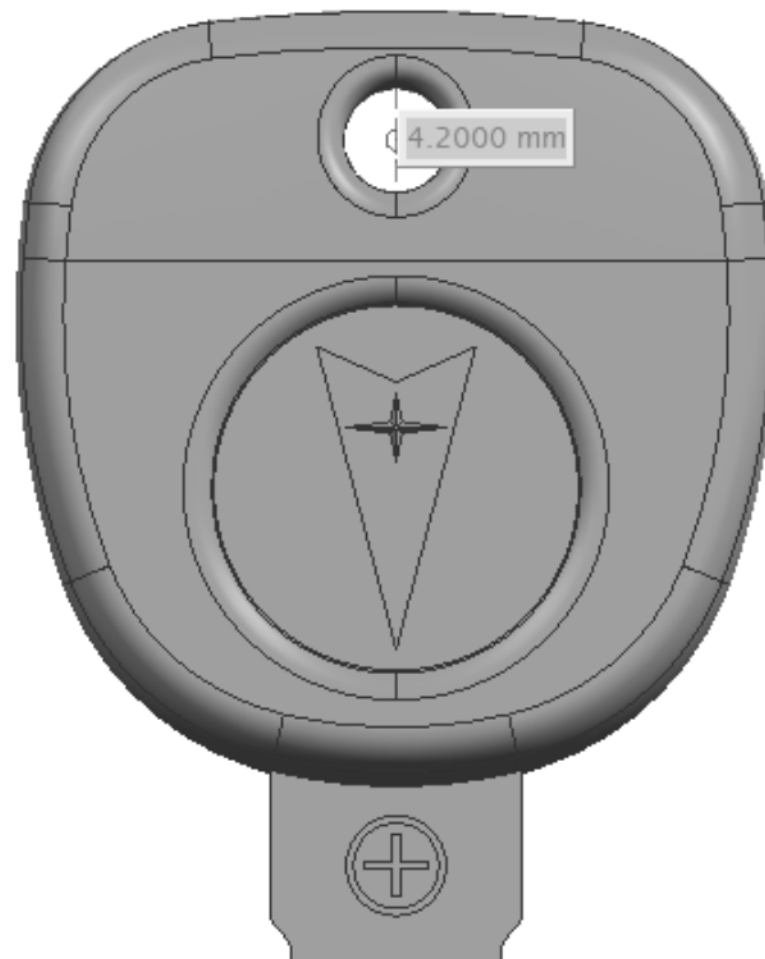
EWO: 521309

PART #: 15839373



EWO: 521309

PART #: 15839387



EWO: 1070202

PART #: 20871319



EWO: 1070202  
PART #: 20871096



EWO: 529926

PART #: 15850969



EWO: 529926

PART #: 15850985



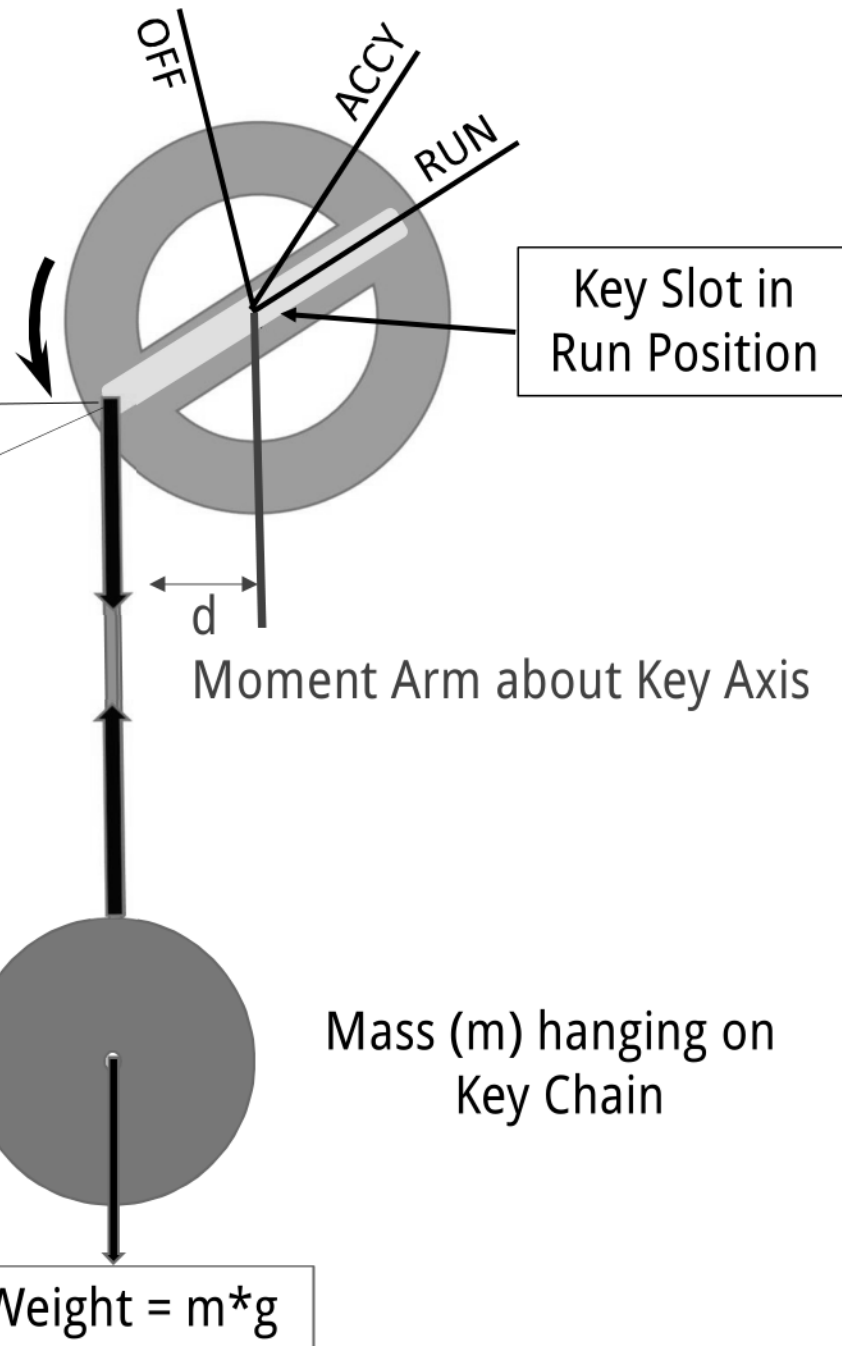
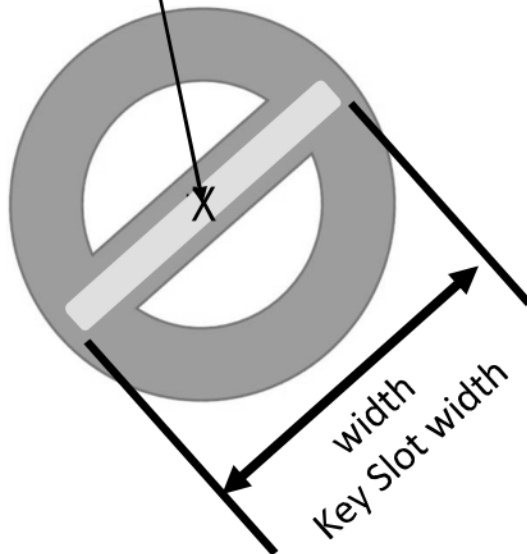


## STATIC RUN POSITION

Torque on Key Cylinder,  $\tau = \text{Weight} * d$

$$\tau = m * g * \frac{\text{width}}{2} * \cos \theta$$

Axis of Key Cylinder



Moment Arm about Key Axis

Mass (m) hanging on Key Chain

Weight = m\*g



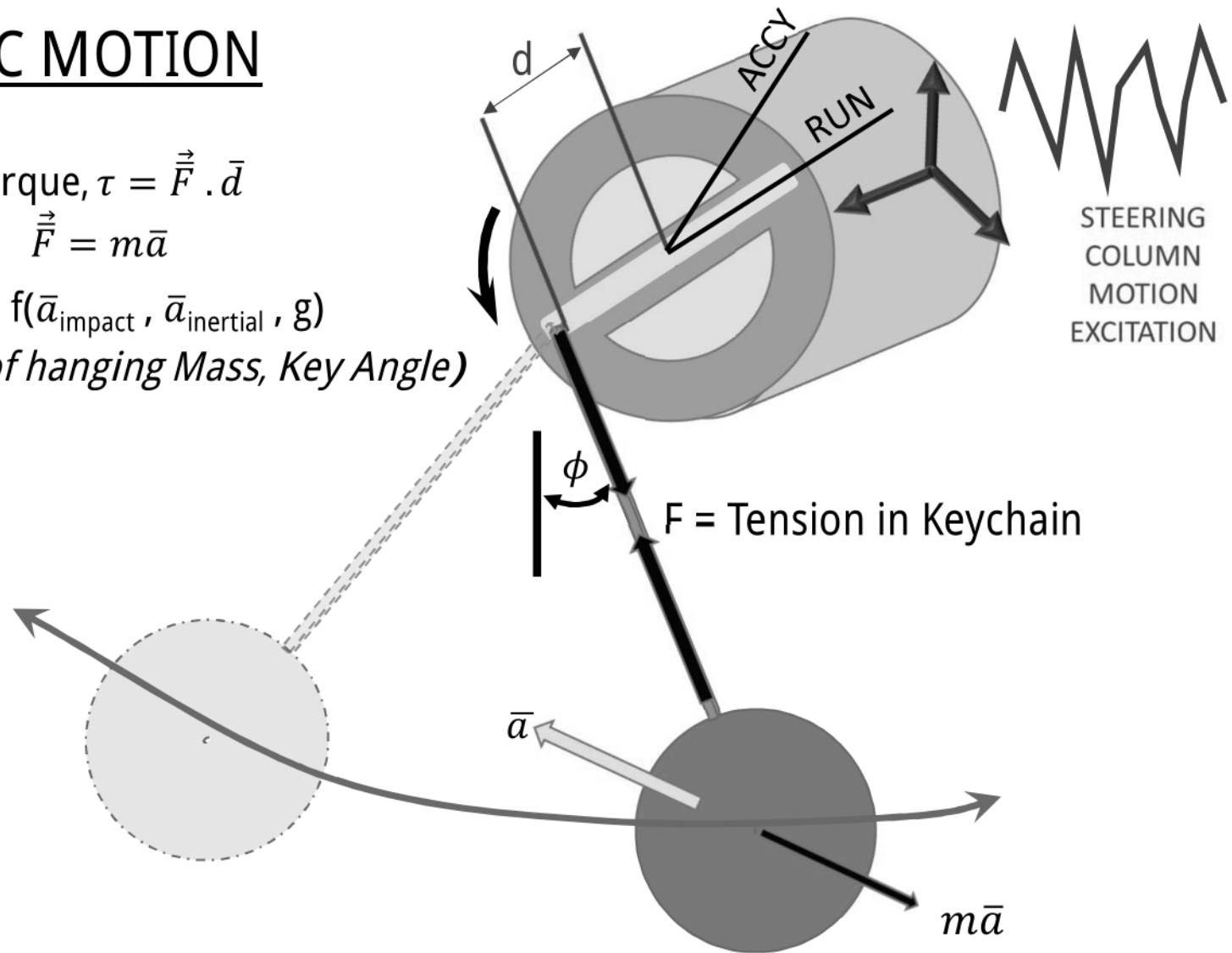
# DYNAMIC MOTION

$$\text{Torque, } \tau = \vec{F} \cdot \vec{d}$$

$$\vec{F} = m\vec{a}$$

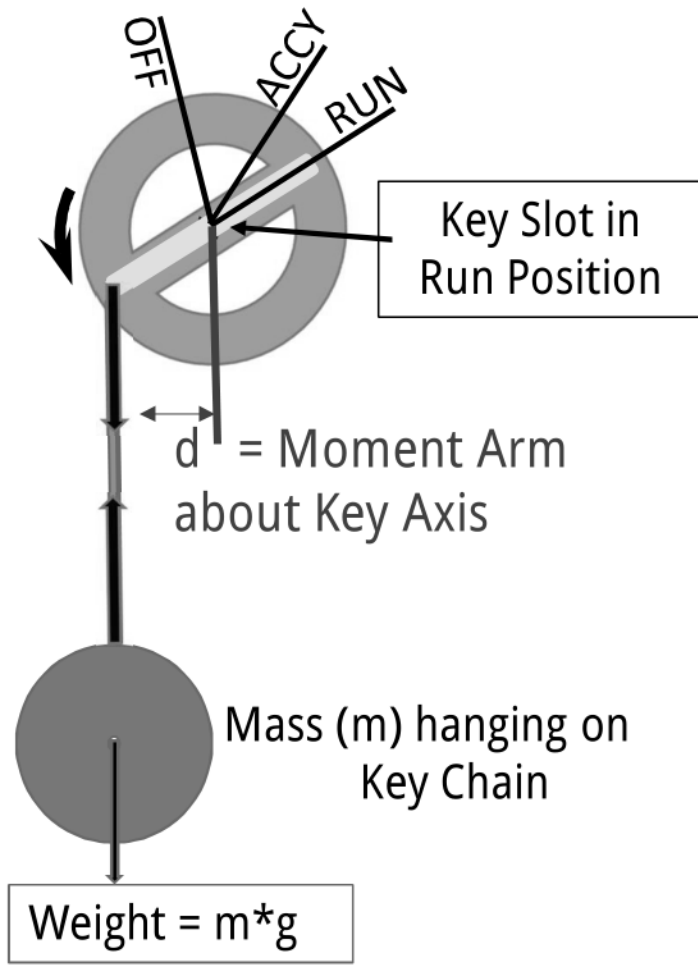
$$\vec{a}(t) = f(\vec{a}_{\text{impact}}, \vec{a}_{\text{inertial}}, g)$$

$$\vec{d} = f(\text{Position of hanging Mass, Key Angle})$$



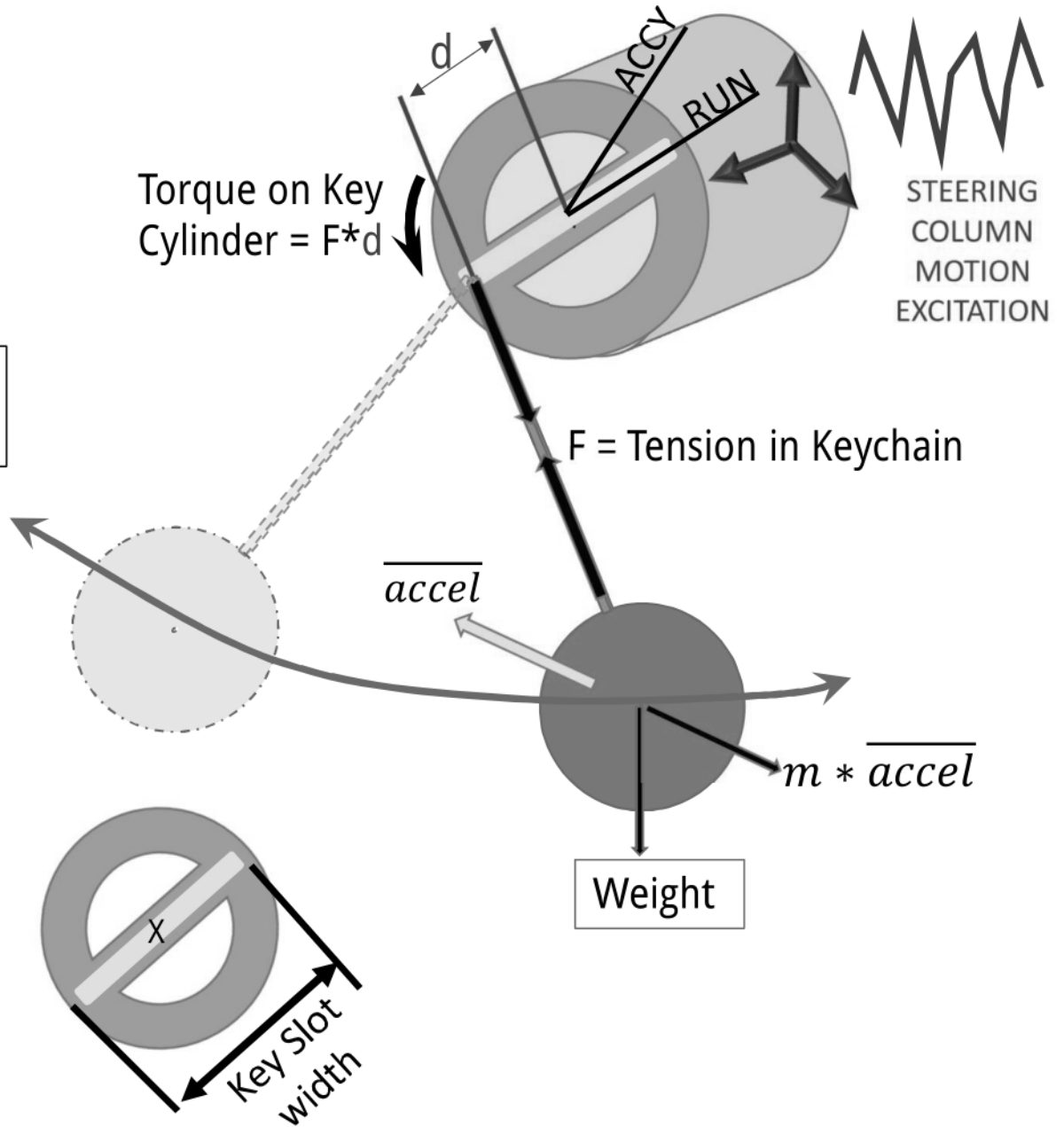
# STATIC RUN POSITION

Torque on Key  
Cylinder = Weight\*d



# DYNAMIC MOTION

Torque on Key  
Cylinder =  $F * d$



## SUMMARY WARRANTY DATA

Model Year	Vehicle	Stalling	Airbags	Ignition Switches	Part No. 15842334	Part Nos. 10392423, 15886190, 12450250, 10378752	Part Nos. 10392423, 15886190, 10392737, 15857948, 15854953, 15896640, 25846762	Misc. Serv. Ops.	Total
2003	ION	3842	1697	33035	7	125		8	38714
2004	ION	5623	1473	47664	10	188		23	54981
2005	Cobalt	5009	2317	14982	185	151		51	22695
2005	ION	5864	405	31221	45	179		12	37726
2006	Cobalt	8524	7938	10933	73	70		67	27605
2006	HHR	3935	930	4717	36	34		32	9684
2006	ION	9749	728	27454	87	133		32	38183
2006	Solstice	488	454	136	4	2		11	1095
2007	Cobalt	8818	5425	7223	9	16		50	21541
2007	G5	1513	993	743	3	7		13	3272
2007	HHR	3681	751	1650	3	11		12	6108
2007	ION	8346	635	10591	34	49		22	19677
2007	Sky	2136	350	130	0	4		6	2626
2007	Solstice	1153	388	180	1	4		7	1733
2008	Cobalt		5007	26593			132	41	31773
2008	G5		807	2739			16	7	3569
2008	HHR		1361	8535			40	13	9949
2008	Sky		228	775			1	10	1014
2008	Solstice		284	943			6	6	1239
2009	Cobalt		8375	43478			111	28	51992
2009	G5		1424	7243			15	3	8685
2009	HHR		8956	16199			23	11	25189
2009	Sky		97	425			0	0	522
2009	Solstice		138	478			3	3	622
2010	Cobalt		2025	6900			18	7	8950

## SUMMARY WARRANTY DATA

<b>Model Year</b>	<b>Vehicle</b>	<b>Stalling</b>	<b>Airbags</b>	<b>Ignition Switches</b>	<b>Part No. 15842334</b>	<b>Part Nos. 10392423, 15886190, 12450250, 10378752</b>	<b>Part Nos. 10392423, 15886190, 10392737, 15857948, 15854953, 15896640, 25846762</b>	<b>Misc. Serv. Ops.</b>		<b>Total</b>
2010	G5		0	0			0	0		0
2010	HHR		800	17140			6	10		17956
2010	Sky		0	2			0	0		2
2010	Solstice		0	1			0	0		1
2011	HHR		5490	789			8	10		6297



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March 25, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") interim, partial response to certain requests in the Special Order dated March 4, 2014. During our meeting of March 12, 2014, and a telephone call on March 19, 2014, we discussed categories of documents requested in the Special Order that were identified as priorities, to be submitted in advance of the April 3, 2014 date set forth in the Special Order if possible. As discussed, GM submits the enclosed responses to certain specified requests, as described in greater detail below. In addition to the aforementioned priority categories, GM is also submitting today further information, as described in Items 12 through 20 below.

Since GM received the Special Order of March 4, 2014, GM has gathered more than 2.2 million documents to review, comprising an estimated 6.6 million pages; we continue to add custodians and other files to the collection. As we have discussed, GM is submitting, in good faith, responses that are based on the information collected and reviewed by GM as of the date of submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA in good faith.

*Information that may implicate privacy-related concerns.* As we have discussed, GM has identified certain types of information contained in the enclosed submission that may implicate privacy-related concerns, including personally identifiable information ("PII"). These types of information include:

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- Individually identifiable health information as defined by the Health Insurance Portability and Accountability Act ("HIPAA"), including individually identifiable information in medical records
- Name
- Address
- Social Security number
- Driver's license or identification number
- Bank account number
- Credit card number
- Insurance claim number
- Insurance number
- Birth date

In response to the Special Order issued by the Secretary of Transportation pursuant to 49 U.S.C. § 30166(g)(1)(A) and 49 C.F.R. §§ 510.7 and 510.8, and pursuant to a delegation of authority to the Chief Counsel of NHTSA, GM submits the enclosed documents, some of which contain the types of information listed above. GM is committed to fulfilling its legal obligations to protect PII and minimizing the risk of unintentional disclosures of information that may implicate privacy-related concerns. To that end, GM requests that NHTSA take the necessary precautions to prevent public disclosure of PII.

*Individuals' contact information.* Please note that the materials submitted today in response to the Special Order's requests for the identification of certain individuals do not include contact information for these individuals. GM will provide such contact information to NHTSA but would like to understand whether and when NHTSA plans to make the information publicly available.

Below is a description of the materials submitted in this interim, partial response to the Special Order. These descriptions track our discussions of March 12, 2014, and March 19, 2014, and contain corresponding Bates ranges.

**1) Problem Resolution Tracking System ("PRTS") reports and Field Performance Reports ("FPR") reports**

- Bates range: GMNHTSA000000003 - GMNHTSA000001990
- Enclosed are copies of the PRTS and FPR reports that were referenced in the chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014.

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**2) A list of matters in which the recall condition may have caused or contributed to airbag non-deployment in frontal-impact crashes**

- A hard copy of this list is enclosed.
- The chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014 identify a number of frontal-impact crashes in the United States involving the recalled vehicles in which the recall condition may have caused or contributed to the airbags' non-deployment, based on the data and information collected, reviewed, and analyzed as of the dates of the submissions.
- The enclosed list of lawsuits, not-in-suit matters ("NISMs"), and incidents without claims includes the aforementioned incidents referenced in the chronologies. Further review and analyses are underway; should they identify further information that is responsive, GM will supplement its response.

**3) Service Bulletins**

- Bates ranges
  - GMNHTSA000000001 - GMNHTSA000000002
  - GMNHTSA000001991 - GMNHTSA000002687
- Enclosed are copies of the Service Bulletins that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014.
- GM has conducted searches of its internal databases for Service Bulletins, Preliminary Informations ("PIs"), and Field Reports ("FRs") that address ignition, airbag, and stalling issues in the vehicles subject to the recalls announced on February 24, 2014 and March 11, 2014. These Service Bulletins, PIs, and FRs are also enclosed.

**4) Documents relating to the 2009 meeting with Continental representatives**

- Bates range: GMNHTSA000002824 - GMNHTSA000002848
- As discussed by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module ("SDM") data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not

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deploy. Enclosed are copies of Continental reports relating to both the August 2007 and May 2009 meetings.

- GM is in the process of conducting targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda or summaries from the August 2007 and May 2009 meetings referenced above.

**5) Documents relating to the Field Performance Evaluation ("FPE") process**

- Bates range: GMNHTSA000002735 - GMNHTSA000002822
- GM has previously provided to NHTSA three PowerPoint documents relating to the Executive Field Action Decision Committee ("EFADC") meetings of December 17, 2013, January 31, 2014, and February 24, 2014.
- Enclosed is a copy of an additional PowerPoint document relating to a meeting of the Field Performance Evaluation Recommendation Committee ("FPERC") held in December 2013.

**6) Communications with NHTSA**

- Bates range: GMNHTSA000002849 - GMNHTSA000002850
- As discussed during our meeting of March 12, 2014, GM is searching the electronically stored information of a priority group of individuals who are most likely to have had relevant communications with NHTSA. Enclosed is a list of the names of the individuals in this priority group.
- Through these searches, GM has identified: (1) an e-mail message dated March 27, 2007, sent by Doug Wachtel; and (2) an attachment to that e-mail message that bears the title "AGENDA NHTSA 03-29-07.pdf" and the caption "NHTSA/GM Quarterly Review - March 29, 2007 - Washington, DC - AGENDA." Copies of this e-mail message and attachment are enclosed.
- GM will provide further responsive e-mails identified through these searches by April 3, 2014. After these searches are completed, GM will widen its review by conducting further searches of the electronically stored information of additional individuals and will supplement our responses to NHTSA.



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**7) Names of individuals whose identities are requested in the Special Order**

- Enclosed in hard copy is a list of the individuals whose identities are requested in numerous requests in the Special Order. GM will supplement this response with supporting explanations and/or documents. As the pending internal investigation continues, GM may learn of other individuals whose identities are responsive to the requests in the Special Order. As GM learns of such information, we will supplement our responses to NHTSA.
- As stated earlier in this letter, please note that the materials submitted today in response to the Special Order's requests for the identification of certain individuals do not include contact information for these individuals. GM will provide such contact information to NHTSA, but requests that the agency refrain from making such contact information publicly available.

**8) Acronym list**

- Bates range: GMNHTSA000002851 - GMNHTSA000002852
- Enclosed is a list of certain terms and acronyms. As previously discussed, please note that this list was created expressly for purposes of the pending internal investigation. As the pending internal investigation continues, GM may supplement the acronym list and provide revised versions to NHTSA.

**9) "Red X" and "Design For Six Sigma" documents**

- Bates range: GMNHTSA000002688 - GMNHTSA000002734
- Enclosed are copies of the "Red X" and "Design For Six Sigma" documents referenced in the chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014.

**10) Document approving changes to the ignition switch, signed April 26, 2006**

- Bates range: GMNHTSA000002823
- The chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014 state that "[o]n April 26, 2006, the GM design engineer responsible for the ignition switch installed in all of the vehicles subject to the Cobalt and G5 recall and the Ion, HHR, Solstice and Sky recall signed a document approving changes to the

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ignition switch proposed by the supplier." Enclosed is a copy of this document.

**11) Report prepared by outside engineering resources**

- Bates range: GMNHTSA000002853 - GMNHTSA000002877
- The chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014 state that in 2013, "GM retained outside engineering resources to conduct a comprehensive ignition switch survey and assessment." Enclosed find a copy of the report prepared by these outside engineering resources.
- The report is a technical analysis of the ignition switch and related matters and does not reflect the mental impressions or opinions of counsel. By producing this document, GM does not intend to waive either the attorney-client privilege or the work product protection over any other documents or information.

In addition, we are producing the following documents that will go to the House Energy and Commerce Committee today.

**12) Communications with supplier on October 29, 2013**

- Bates range: GMNHTSA000002881 - GMNHTSA000002903
- The House Energy & Commerce Committee has referred to an October 29, 2013, meeting with a supplier, and asked GM to produce the supplier records referred to in the chronology, as well as any related communications, memoranda or analyses shared by the supplier or between GM and the supplier. GM believes that this request relates to the statement in the chronology filed with NHTSA on February 24, 2014, that "On October 29, 2013, after dialogue with the supplier, GM was provided with supplier records showing that changes had in fact been made to the detent plunger and spring late in the 2006 calendar year."
- Our understanding based on our reviews and investigation to date is that the referenced communications were conducted via e-mail, not during an in-person meeting. We have identified an e-mail exchange from that date that includes a document from the supplier, and submit these e-mail messages today.

Furthermore, the House Energy and Commerce Committee has asked for the following items. A description of these items and a timetable for their anticipated production follows:

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**13) NHTSA ODI panels in 2007 and 2012**

- The House Energy & Commerce Committee has asked GM if NHTSA has contacted GM to request information or documents relating to NHTSA ODI panels in 2007 and 2012, and if so, to provide those documents and committee. The Committee has also offered to narrow the date ranges for this request. GM will conduct searches upon receiving date ranges from the Committee, and will produce responsive documents on a rolling basis to both the Committee and to NHTSA.

**14) GM engineer tasked with tracking frontal crashes in 2007**

- The chronology submitted to NHTSA on February 24, 2014, states that in 2007, "a GM investigating engineer was tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy, in order to try to identify common characteristics of these crashes." The House Energy & Commerce Committee has asked for any analyses, reports, or memoranda compiled by that engineer or otherwise as a result of that investigation. We are in the process of searching for responsive document from that engineer (John Sprague). In addition, we believe, subject to further investigation, that in 2011 Brian Stouffer contacted Mr. Sprague and obtained information from him to further Mr. Stouffer's analysis. Our current understanding is that the culmination of Mr. Stouffer's work is reflected in whole or in part in the EFADC presentations previously submitted to NHTSA and the FPERC presentation submitted today.

**15) Meeting between GM and NHTSA representatives on March 29, 2007**

- The chronology submitted to NHTSA on February 24, 2014, states that "[o]n March 29, 2007, a group of GM employees met with NHTSA representatives in Washington, D.C. to discuss occupant restraint systems. During this meeting, a NHTSA representative informed the GM employees of a fatal crash that occurred on July 29, 2005, in which a 2005 Cobalt was involved in a frontal collision, the airbags did not deploy, and data retrieved from the car's sensing and diagnostic module ('SDM') indicated that the car's power mode status was 'accessory' (hereinafter 'the July 29, 2005 crash')."

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- The House Energy & Commerce Committee has stated that, if GM communicated with NHTSA about the July 29, 2005 crash before or after this meeting, the Committee would like those e-mails and communications as well as internal GM communications about that meeting. GM has located responsive documents referenced in Item 6 above (produced at Bates range GMNHTSA000002849 - GMNHTSA000002850), and we continue to search for further responsive documents.

**16) Database of warranty claims and Not In Suit Matters ("NISMs")**

- The House Energy & Commerce has requested an electronic database or searchable reports from any such database of warranty claims and of Not in Suit Matters ("NISMs"). The Committee has limited this request at this time to the time frame of the recalled vehicle population and to the recalled vehicles.
- With respect to warranty claims, GM is working with engineers and others familiar with the database to determine which combinations of codes, search terms, and/or manual review might correspond to some degree to the Committee's request. As the Committee has requested, we are searching for warranty claims for the vehicles subject to the recall for problems with stalls, ignition switches, or airbags, and will provide responsive documents to NHTSA as well.
- With respect to NISMs, GM is currently processing certain NISM files that represent the incidents identified by GM engineers at the time of the submission of the chronologies as frontal impact crashes in which the recall condition may have caused or contributed to the airbags' nondeployment. We understand that the Committee's request for NISM files is not limited to files in which the recall condition may have caused or contributed to the airbags' non-deployment, so we are continuing to conduct a broader search for NISM files in the recall population for any problems with ignition, stalls, or non-deployment of airbags. The language used in the Committee's requests does not correspond exactly to how GM's files are organized. As we continue our searches, we will get a better idea of the quantity of NISMs covered in the Committee's broad definition and discuss with the Committee whether the scope of the request can be narrowed. Responsive documents produced to the Committee will also be produced to NHTSA.

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- As discussed with the Committee, the NISM files contain a number of privileged communications, which GM will not be producing. GM is not waiving and does not intend to waive either the attorney-client privilege or the work product protection by making its production to Congress. Also as discussed with the Committee, GM will not redact from the NISM files any technical or fact information written by non-attorneys. In addition, the Committee has stated that GM need not produce a privilege log at this time. The Committee also asked whether GM will be producing any references in the NISM files, to the extent they exist, to an attorney referring an issue to the Field Performance Evaluation ("FPE") process. We are checking whether the NISM files contain any such statements.

**17) Ignition switch change**

- The House Energy and Commerce Committee has requested documents and communications relating to Delphi's proposal to change the ignition switch, GM's approval of that proposal, and why the part number was not changed. We are in the process of conducting searches for these documents. Apart from the document identified in response to Request 10 above, we are conducting searches focused on identifying communications involving a Delphi employee who appears to have had communications with GM on these issues.

**18) Ignition switch specification**

- The House Energy and Commerce Committee has requested the specification for the ignition switch part in the models subject to the recall, including the specification for torque performance. We are continuing to search for responsive documents and have preliminarily identified a specification which is produced at Bates GMNHTSA000002878 to GMNHTSA000002880. Information relating to this request is also included in the presentations relating to the EFADC meetings of December 17, 2013, and January 31, 2014, and in the "outside engineering resources" document referenced above. Our investigation of this issue is ongoing.

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### 19) Failure Mode Effects Analyses

- The House Energy and Commerce Committee has requested all Failure Mode Effects Analyses ("FMEAs") related to the ignition switches or nondeployment of airbags in the vehicles that are subject to the February recall. We are searching for any such FMEAs and expect we will have some responsive documents to produce later this week.

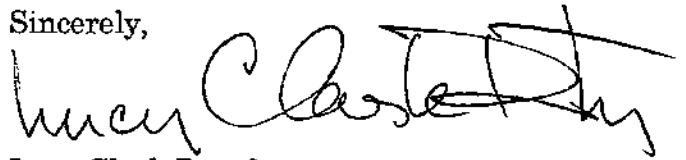
### 20) Early Warning Reports

- From 2004 until today, for the vehicles subject to the recall, the House Energy and Commerce Committee asked how many Early Warning Reports ("EWRs") were filed with NHTSA for death/serious injury "related to the conditions subject to the recall: stall, ignition switch, or airbags," and the Committee asked GM to produce those EWRs. In addition, for those EWRs, the Committee asked if GM had performed any follow-up or investigation of the death/serious injury incidents. If so, the Committee asked for related documents or analyses.
- GM is in the process of preparing for production the EWR data related to personal injury or death submitted to NHTSA for the vehicles within the recall scope from the third quarter of 2003 to present using the following TREAD system codes: 1=Steering, 6=Engine and Engine Cooling, 11=Electrical, 14=Air Bags, 98=System or component not listed 1-24 and 99=System or component unknown. These are the codes that GM currently believes are most relevant to the issues identified by the Committee, and our analysis is ongoing. As with the warranty data, given the broad parameters of the search that the Committee has requested, it is likely that the data we will produce to the Committee will include many incidents that do not involve the recall condition. GM expects to begin producing the EWRs on Wednesday or Thursday, to both the Committee and to NHTSA.

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Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large, stylized initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated

**General Motors**  
**List of Matters in Which Recall Condition May Have Caused or Contributed to Airbag Non-Deployment in Frontal-Impact Crashes**  
**As of March 25, 2014\***

Case/Matter Type	Incident Date	Incident State	Model Year	Make	Model	VIN
NISM	12/23/2003	Connecticut	2004	Saturn	ION	1G8AJ52F54Z151884
Lawsuit	07/04/2004	California	2004	Saturn	ION	1G8AF52F94Z122157
Lawsuit	11/15/2004	Texas	2004	Saturn	ION	1G8AJ52F14Z167768
Lawsuit	11/15/2004	Texas	2004	Saturn	ION	1G8AJ52F14Z167768
Lawsuit	06/26/2005	Maryland	2005	Saturn	ION	1G8AN12F85Z106819
NISM	07/29/2005	Maryland	2005	Chevrolet	Cobalt	1G1AL12F857595416
NISM	11/17/2005	Louisiana	2005	Chevrolet	Cobalt	1G1AL52F857579918
NISM	02/10/2006	Virginia	2005	Chevrolet	Cobalt	1G1AL52F357549399
NISM	03/14/2006	Maryland	2005	Chevrolet	Cobalt	1G1AK52F157618321
Incident Without Claim	10/24/2006	Wisconsin	2005	Chevrolet	Cobalt	1G1AK52F657565454
Lawsuit	12/29/2006	Pennsylvania	2005	Chevrolet	Cobalt	1G1AL12F657609040
NISM	02/06/2007	Pennsylvania	2005	Chevrolet	Cobalt	1G1AL12F557637444
NISM	03/05/2007	Florida	2006	Chevrolet	Cobalt	1G1AK15F467742265
NISM	08/06/2007	West Virginia	2006	Chevrolet	Cobalt	1G1AK55F167847403
NISM	09/26/2007	Louisiana	2007	Chevrolet	Cobalt	1G1AL55F577245022
NISM	10/16/2007	Ohio	2005	Chevrolet	Cobalt	1G1AK52F157564521
NISM	03/18/2008	Illinois	2006	Chevrolet	HHR	3GNDA23P36S648475
NISM	04/05/2008	Tennessee	2006	Chevrolet	Cobalt	1G1AK55F167854657
NISM	05/21/2008	Wisconsin	2007	Pontiac	G5	1G2AN15B877106322
NISM	05/29/2008	Texas	2007	Chevrolet	Cobalt	1G1AL15F577239827
Incident Without Claim	09/13/2008	Michigan	2006	Chevrolet	Cobalt	1G1AM15B067787193
NISM	12/06/2008	Florida	2007	Chevrolet	Cobalt	1G1AK15F877408306
NISM	02/04/2009	Missouri	2004	Saturn	ION	1G8AJ52F94Z187038
Lawsuit	12/13/2009	Virginia	2005	Chevrolet	Cobalt	1G1AL14F157629404

\* As pending reviews proceed, General Motors will supplement this list as needed.



**General Motors**  
**List of Matters In Which Recall Condition May Have Caused or Contributed to Airbag Non-Deployment in Frontal-Impact Crashes**  
**As of March 25, 2014\***

Case/Matter Type	Incident Date	Incident State	Model Year	Make	Model	VIN
NISM	12/31/2009	Tennessee	2006	Chevrolet	Cobalt	1G1AM58B367738475
NISM	10/10/2010	Wisconsin	2006	Saturn	ION	1G8AJ55F46Z210272
NISM	12/24/2010	Pennsylvania	2004	Saturn	ION	1G8AN12F04Z120681
NISM	12/31/2010	Texas	2006	Chevrolet	Cobalt	1G1AL15F967759849
NISM	02/11/2011	Maryland	2007	Chevrolet	HHR	3GNDA23P37S591907
NISM	02/13/2011	South Carolina	2007	Chevrolet	Cobalt	1G1AL55F577322049
NISM	02/20/2011	Ohio	2005	Chevrolet	Cobalt	1G1AL52F757539975
NISM	05/25/2011	New Mexico	2007	Chevrolet	HHR	3GNDA33P87S610036
NISM	08/12/2012	Illinois	2005	Chevrolet	Cobalt	1G1AL52F757573043
NISM	11/24/2012	Colorado	2007	Saturn	ION	1G8AW18F87Z155008

\*As pending reviews proceed, General Motors will supplement this list as needed.

**Special Order Requests #14 and #15**

14. **Identify all communications prior to February 7, 2014 between GM and NHTSA related to the defect condition.**
15. **Identify all communications prior to February 7, 2014 between GM and NHTSA related to the nondeployment of airbags in subject vehicles.**

In order to prepare its response to Requests 14 and 15 of the Special Order, General Motors ("GM") has begun by searching the electronically stored information of a priority group of individuals who are most likely to have had relevant communications with NHTSA. This priority group includes the following individuals:

M. Carmen Benavides

James Churchwell

Brian Everest

Matt Jerinsky

Gay Kent

Michael Robinson

Brian Stouffer

Doug Wachtel

By April 3, 2014, GM will submit the responsive information identified through these searches as of that date. After the searches of these priority individuals' electronically stored information are completed, GM will widen the scope of its review and search the electronically stored information of other individuals for relevant communications with NHTSA.

This response is based on the information known as of the date of this submission. Should the pending internal investigation produce additional information regarding the identity of individuals who had relevant communications with NHTSA, General Motors will supplement its response.

**Identification of Individuals  
Referenced in the NHTSA Special Order Dated March 4, 2014**

Below, General Motors ("GM") identifies the specific individuals whose identities are requested in the NHTSA Special Order dated March 4, 2014. GM will provide supporting explanations and/or documents on a rolling basis after April 3, 2014. The following responses are based on the information known to GM at the time of submission. As the pending internal investigation continues, GM may learn of other persons whose identities are responsive to requests in the Special Order. As GM learns of such information, we will supplement our responses to NHTSA on a rolling basis.

\* \* \*

18. **For each Problem Resolution Tracking System ("PRTS") inquiry addressed by GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report, identify each of the individuals involved in the PRTS inquiry.**

In this and all following tables, the identified individuals are or were GM employees unless otherwise noted.

Name	Title
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Alan Storck	Lead Development Engineer, Milford Proving Ground
Nancy Burder	US/GM/GMC
Gary F. Altman	Program Engineering Manager
Ray DeGiorgio	Design Release Engineer
Joseph Joshua	
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mounts
David Trush	Lead GMNA Lockset Engineer
Scott Sherman	Suspension-Steering-Structures & Mounts
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Dennis L. Korinek	US/GM/GMC

<b>Name</b>	<b>Title</b>
Sarah Devries	US/GM/GMC
Doug Parks	Chief Engineer at the time of the 2005 Cobalt vehicle launch
Lori Queen	Former GM Vehicle Line Executive, Small Cars
Walt J. Rokicki	US/GM/GMC
Paul Coliadis	US/GM/GMC
<b>FPR 9731 (Cobalt, initiated March 9, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS 0793/2005/US (Cobalt, initiated March 9, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Jonathan (Jack) L. Weber	
Chris Chase	
Rajiv Mehta	
Tracy Thueme	
Chris J. Berube	
<b>FPR 10682 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures- Body Component-Latching Systems
David B. Kepczynski	Body Hardware Components, Door Hardware

<b>Name</b>	<b>Title</b>
Joseph Joshua	
Ralph P. Madison	
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	US/GM/GMC
Walt J. Rokicki	US/GM/GMC
Paul Coliadis	US/GM/GMC
Al Manzor	Senior Project Engineering Manager for Electrification
<b>PRTS 2327/2006/US (Cobalt, initiated August 1, 2006)</b>	
Eric Walker	
Rob Martin	
David (Dave) Peacy	Vehicle Sales Service & Marketing (VSSM)
<b>PRTS 1078137 (Cobalt, initiated February 4, 2009)</b>	
William Chase	Warranty Engineer
David Trush	Lead GMNA Lockset Engineer
Joe Baaki	
Paul Coliadis	US/GM/GMC
Brad I. Cook	
John Dobish	Global Vehicle Systems and Integration
Jamayca Henderson	Global EWO Implementation Change Management Coordinator
Darren Ford	Global Quality Continuous Improvement
Mark Alty	

Name	Title
Mary Kinney	
Gregory Schone	Global Quality Continuous Improvement
Chuck Kellogg	Program Warranty and VEC Warranty Part Center, Global Product
Yvonne Cummings	
Daniel Wood	Supplier Quality, Spring Hill
Kathy Macko	
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Bill Skelton	Infotainment, Controls, Displays
Sharon Schroeder	GMNA Program Mgmt Tech Center
<b>PRTS 1462/2005/US (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Thomas Russell	Vehicle Sales, Service and Marketing
Shannon Moore	
Edward Laskowski	
Frank Flees	
Cathy Lounsbury	
Craig St. Pierre	Supplier Resident Engineer, Ortech

21. Did GM perform any work in 2008 relate[d] (sic) to the defect that is the subject of this recall, including by investigating crashes in any way of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.

Name	Title
Douglas Brown	Legal Staff
Hamed Sadmia	FPA Engineer
Dan Derrick	ESIS Investigator
Lisa Stacey	FPA Engineer
Leland Coblantz	ESIS Investigator
Brian Everest	Senior Consultant Manager, FPA Engineer
Mark Byrd	ESIS Investigator
Ryan Jahr	ESIS Investigator
David Trush	Lead GMNA Lockset Engineer
Kathy Anderson	Technical Fellow, FPA
Jenny Sevigny	Senior Manager, FPA

23. Did GM perform any Failure Mode and Effects Analysis that relates or may relate to the defect? If yes, state the beginning and end date of each Failure Mode and Effects Analysis, describe the finding(s) and conclusion(s) of each Failure Mode and Effects Analysis, identify each individual involved with each Failure Mode and Effects Analysis, and provide all related documents.

Review of documents relating to Failure Mode and Effects Analyses is ongoing, and we will supplement our response as relevant information is identified.

24. State each date on which GM's Field Performance Evaluation Review Committee and/or Field Product Evaluation Recommendation Committee ("FPERC") discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Name	Title
<b>December 4, 2013</b>	
Brian Stouffer	Field Performance Assessment Engineer (retired)
Maureen Foley-Gardner	FPE Director
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
John Murawa	Field Performance Assessment Engineer
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Gay Kent	General Director, GMNA Vehicle Safety and Crashworthiness

25. State each date on which GM's Executive Field Action Decision Committee discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Name	Title
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering



Name	Title
Gerald Johnson	Vice President, N. American Manufacturing
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Maureen Foley-Gardner	FPE Director
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality
John Murawa	Field Performance Assessment Engineer
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Sherry Hickock	Supplier Quality

31. On what date(s) were "GM employees [] able to replicate this phenomenon during test drives"? (sic) State the total number of times "GM employees were able to replicate this phenomenon during test drives," identify each of the individuals involved in this work, and provide all related documents.

Name	Title
Jonathan (Jack) L. Weber	

42. Identify all individuals involved with the proposal “that GM redesign the key head from a ‘slotted’ to a “hole’ configuration,” including by identifying those individuals who made the decision to approve and cancel the redesign.

Name	Title
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Alan Storck	Lead Development Engineer, Milford Proving Ground
Nancy Burder	US/GM/GMC
Gary F. Altman	Program Engineering Manager
Ray DeGiorgio	Design Release Engineer
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mounts
David Trush	Lead GMNA Lockset Engineer
Scott Sherman	Suspension-Steering-Structures & Mounts
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Dennis L. Korinek	
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures-Body Component-Latching Systems

Name	Title
David B. Kepczynski	Body Hardware Components, Door Hardware
Ralph P. Madison	
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
Al Manzor	Senior Project Engineering Manager for Electrification
Elizabeth Kiihr	Product Investigations

47. **Identify all individuals involved with GM's replacement of the "previous key ring . . . with a smaller, 13 mm design."**

Name	Title
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures-Body Component-Latching Systems
David B. Kepczynski	Body Hardware Components, Door Hardware
Ralph P. Madison	

<b>Name</b>	<b>Title</b>
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
Al Manzor	Senior Project Engineering Manager for Electrification
Elizabeth Kiihr	Product Investigations

56. **Identify all individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.**

Review of documents relating to this issue is ongoing, and we will supplement our response as relevant information is identified.

60. **Identify each individual (including individuals working for or on behalf of GM as well as individuals working for or on behalf of Delphi Mechatronics) who was informed of the changes to the ignition switch approved on April 26, 2006, and describe what each person's responsibility, role or other involvement was in relation to the issue.**

<b>Name</b>	<b>Title</b>
Ray DeGiorgio	Design Release Engineer
Eduardo Rodriguez	Delphi

**66. Identify each individual involved in the March 29, 2007 meeting between a “group of GM employees . . . [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”**

Enclosed with this response are copies of: (1) an e-mail message dated March 27, 2007, sent by Doug Wachtel; and (2) an attachment to that e-mail message that bears the title “AGENDA NHTSA 03-29-07.pdf” and the caption “NHTSA/GM Quarterly Review - March 29, 2007 - Washington, DC – AGENDA.” See documents bearing Bates labels GMNHTSA000002849 - GMNHTSA000002850.

*Attachment titled “AGENDA NHTSA 03-29-07.pdf.”* The attachment titled “AGENDA NHTSA 03-29-07.pdf” lists the following individuals as “presenters” during the meeting of March 29, 2007:

Name	Title
Matt [sic] Jerinsky [the correct spelling is “Jerinsky”]	Crashworthiness and Safety
Brian Everest	Senior Consultant Manager, FPA Engineer
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Brian Stouffer	Field Performance Assessment Engineer (retired)

According to the attachment, these presentations appear to have been conducted using “WebEx,” an online remote meeting service, so some of the presenters referenced above may not have been physically present in Washington D.C. during the meeting of March 29, 2007. Other information learned by GM through its internal investigation indicates that the following individuals may have been physically present for the meeting of March 29, 2007, in Washington D.C.:

<b>Name</b>	<b>Title</b>
Matt Jerinsky	Crashworthiness and Safety
Brian Everest	Senior Consultant Manager, FPA Engineer
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy
Stephen Gehring	Director, Global Public Policy - Global Infotainment and OnStar Public Policy

*E-mail message dated March 27, 2007.* The e-mail message sent by Doug Wachtel bears the date of March 27, 2007, and the time of "20:20:15:000." This e-mail message appears to forward an e-mail message sent by Elizabeth A. Bardowell on March 27, 2007, at 3:23 p.m. Ms. Bardowell's e-mail reflects that it was sent to the following recipients:

<b>Name</b>	<b>Title</b>
Gary M. Dowd	
Jay H. Sim	
Mark Deacon	
Rick A. Czajkowski	
Philip R. Horton	
Richard J. Gratz	
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
John Murawa	Field Performance Assessment Engineer
Keith D. Wilson	
Sue Myers-Babiasz	

Mr. Wachtel's e-mail, also dated March 27, 2007, in which he appears to forward Ms. Bardowell's e-mail, reflects that it was sent to the following recipients:

Name	Title
Christopher Janik	Field Performance Assessment Engineer
John Murawa	Field Performance Assessment Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)
Mickey Sabol	Field Performance Assessment Engineer
Harry A. Wiedenmeyer	Field Performance Assessment Engineer
Eric A. Buddrius	Field Performance Assessment Engineer

This response is based on the information known as of the date of this submission. Should the pending internal investigation produce additional information regarding the identity of individuals who were involved in the March 26, 2007 meeting, General Motors will supplement its response.

68. **Identify the "GM investigating engineer [] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy," and any other individuals involved with this work.**

Name	Title
John Sprague	Field Performance Assessment Engineer
Brian Everest	Senior Consultant Manager, FPA Engineer

73. Provide all documents related to the key change implemented following the February 2009 PRTS, and identify all individuals involved with the key change.

Name	Title
<b>PRTS 1078137 (Cobalt, initiated February 4, 2009)</b>	
William Chase	Warranty Engineer
David Trush	Lead GMNA Lockset Engineer
Joe Baaki	
Paul Coliadis	
Brad I. Cook	
John Dobish	Global Vehicle Systems and Integration
Jamayca Henderson	Global EWO Implementation, Change Management Coordinator
Darren Ford	Global Quality Continuous Improvement
Mark Alty	
Mary Kinney	
Gregory Schone	Global Quality Continuous Improvement
Chuck Kellogg	Program Warranty and VEC Warranty Part Center GM, Global Product
Yvonne Cummings	
Daniel Wood	Supplier Quality, Spring Hill
Kathy Macko	
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Bill Skelton	Infotainment, Controls, Displays
Sharon Schroeder	GMNA Program Mgmt Tech Center



**75. Identify the GM engineers who participated in the meeting with Continental on or about May 15, 2009.**

As discussed by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module ("SDM") data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy. GM is submitting the Continental reports relating to both the August 2007 and May 2009 meetings.

Name	Title
Brian Everest	Senior Consultant Manager, FPA Engineer
John Sprague	Field Performance Assessment Engineer
James Churchwell	Safety Integration Sensing Performance
Lisa Stacey	

**78. Did GM perform any work in 2010 to investigate crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.**

Name	Title
Jaclyn Palmer	Legal Staff
Mark Byrd	ESIS Investigator
Mike Wedzinski	FPE Engineer

80. **Identify each individual** involved with the Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts.”

Name	Title
Brian Stouffer	Field Performance Assessment Engineer (retired)
John Sprague	Field Performance Assessment Engineer
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Bill Kemp	Legal Staff
Jennifer Sevigny	Legal Staff
Carmen Benavides	Director, Product Investigations
Terry Woychowski	Vice President, Program Management (retired)
James Federico	Chief Engineer, Subcompacts
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Eric Buddrius	Product Investigations
Dan Davis	Red X Engineer
Jeff Konchen	Ignition Cylinder Lead
Terry Connolly	
John Zuzelski	Global Steering System GSSLT
Jaclyn Palmer	Legal Staff
Ray DeGiorgio	Design Release Engineer
John Murawa	Field Performance Assessment Engineer
Maureen Foley-Gardner	FPE Director

Name	Title
John Dolan	Engineer and Head of Global Subsystem Leader Team on Passive Safety Control
Vipul Modi	Global Lead Engineer – Responsible for Airbag Electronics
Jim Churchwell	Sensing Performance Electrical Engineer
Brian Thompson	Group Manager, Electrical Engineering

82. **What steps did those involved in GM's Field Performance Evaluation investigation take to "identify design changes to the ignition switch?" To the extent the answer to this request involves discussions with GM employees or employees of GM's supplier, identify the individuals involved in those discussions and identify the date(s) and substance of those discussions.**

Name	Title
Ray DeGiorgio	Design Release Engineer

85. **Identify each individual involved with a study using the "Red X" problem-solving methodology to "better understand[] the differences in observed torque performance."**

Name	Title
Dan Davis	Red X Engineer
Bill Merrill	Red X Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)

89. **Identify each individual involved with a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance.”**

Name	Title
Doug Wachtel	Senior Manager of Product Investigations (retired)
Brian Stouffer	Field Performance Assessment Engineer (retired)
Jeff Konchen	Ignition Cylinder Lead
Terry Connolly	
John Zuzelski	Global Steering System GSSLT

94. **On what date did GM retain “outside engineering resources to conduct a comprehensive ignition switch survey and assessment?” Identify the “outside engineering resources” GM retained.**

Name	Title
Subbaiah V. Malladi	Principal Engineer, Exponent

96. **Describe all communications GM had with its supplier regarding changes to the ignition switch in vehicles subject to recalls, identify all individuals involved in those communications (whether at GM or its supplier), and provide all related documents.**

Name	Title
Ray DeGiorgio	Design Release Engineer
Eduardo Rodriguez	Delphi

100. What findings and proposed solutions did the investigating engineers involved in GM's Field Performance Evaluation investigation present to the FPERC? Identify all individuals involved and provide all related documents.

Name	Title
Brian Stouffer	Field Performance Assessment Engineer (retired)
Maureen Foley-Gardner	FPE Director
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Gay Kent	General Director, Vehicle Safety and Crashworthiness

102. On what date did the FPERC present recommendations to the Executive Field Action Decision Committee? Identify all individuals involved and provide all related documents.

Name	Title
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering
Gerald Johnson	Vice President, N. American Manufacturing
Steven Kiefer	Vice President, Global Powertrain
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Maureen Foley-Gardner	FPE Director

Name	Title
John Murawa	Field Performance Assessment Engineer
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Sherry Hickock	Supplier Quality
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality

102. What “[f]actual questions were raised” at the December 17, 2013 meeting with the Executive Field Action Decision Committee “that required further analysis?” What “further analysis” took place? Identify the individuals involved in the “further analysis,” and provide all related documents.

Name	Title
John Murawa	Field Performance Assessment Engineer



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

GENERAL MOTORS COMPANY  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

March 26, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") second interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

**1) Articles Referenced in Chronologies**

- Bates range: GMNHTSA000197578 - GMNHTSA000197581
- Enclosed are copies of three news articles referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014.

In addition, enclosed are copies of the following documents that will be submitted to the House Energy and Commerce Committee today, some of which is also responsive to the Special Order:

**2) EWR data**

- Bates range: GMNHTSA000197582 - GMNHTSA000197623
- In response to the request of the House Energy and Commerce Committee for certain Early Warning Report ("EWR") data, we noted in yesterday's letter that GM is in the process of preparing for production EWR data related to personal injury or death submitted to NHTSA for the vehicles within the scope of the February 7, 2014 and February 25, 2014 recalls, from the third quarter of 2003 to

O. Kevin Vincent, Esq.  
March 26, 2014  
Page 2

present using the following TREAD system codes: 1=Steering, 6=Engine and Engine Cooling, 11=Electrical, 14=Air Bags, 98=System or component not listed 1-24 and 99=System or component unknown. These are the codes that GM currently believes are most relevant to the scope identified by the Committee (covering problems with stalls, ignition, or airbags). GM's analysis is ongoing.

- Please note that the EWR data is submitted to NHTSA on a quarterly basis, so the report GM is producing covers the third quarter of 2003 through the fourth quarter of 2013. As we noted, given the broad parameters of the search that the Committee has requested, the data we are producing to the Committee will include many incidents that do not involve the recall condition.

### 3) EWR Request Letters

- Bates range: GMNHTSA000197624 - GMNHTSA000200550
- The House Energy and Commerce Committee has also asked if NHTSA requested information or sent request letters in relation to certain EWRs specified by the Committee. If so, the Committee asked us to provide those letters from NHTSA and the related documents, communications, and correspondence, including submissions to NHTSA by GM.
- Using the TREAD system codes described above, GM has searched for and is producing today request letters from NHTSA concerning deaths and injuries and GM's responses and supplemental submissions to NHTSA for the vehicles within the recall scope from the third quarter of 2003 to the third quarter of 2013.
- As with the EWR reports, given the broad parameters of the search that the Committee has requested, it is likely that the documents and data we are producing regarding supplemental submissions to NHTSA will include many incidents that do not involve the recall condition. Please note that the request letters from NHTSA identify the quarter and year General Motors submitted the EWR data, along with the sequence identification number and VIN for those incidents. Our investigation regarding these matters is continuing.



O. Kevin Vincent, Esq.  
March 26, 2014  
Page 3

#### 4) Warranty Reports

- Bates ranges:
  - GMNHTSA000200556 - GMNHTSA000200559 (airbag, 2004 – 2007)
  - GMNHTSA000200560 - GMNHTSA000200563 (ignition switch, 2004 – 2007)
  - GMNHTSA000200551 - GMNHTSA000200555 (supporting files)
- With respect to the Committee's request for warranty claims involving problems with stalls, ignition switches, or airbags for the vehicles subject to the recalls announced on February 7 and February 25, there are numerous fields and code numbers that do not correspond precisely with the Committee's request. As a result, employees familiar with the database have exercised judgment in identifying what search methodologies to use to generate reports that will correspond to some degree with the Committee's request. Subject to these limitations, GM has completed its initial searches for U.S. warranty data for claims involving airbags or ignition switches applicable to the 2003-2007 Ion, 2006-2007 HHR, 2006-2007 Solstice, 2007 Sky, 2005-2007 Cobalt and 2007 G5 vehicles. Those reports, with the exception of reports for model year 2003, are produced at the Bates ranges specified above.
- GM is also providing a collection of reference documents that describe the Labor Codes, Trouble Codes, and Customer Complaint Codes that are available for searching, that show how warranty claims are grouped into related buckets, and that describe the field names and descriptions in the data repository that are used, with other business logic, to create the reporting columns. GM expects to produce by tomorrow or Friday the model year 2003 reports involving airbags or ignition switches. In addition, we expect to produce tomorrow or Friday reports generated for problems with stalls, subject to the limitations described above.
- Because of the search methodology, the warranty claims identified in the reports GM is producing do not all reflect the recall condition, and the quantity of claims reflected in the production is substantially greater than the number of claims related to the recall condition.

O. Kevin Vincent, Esq.  
March 26, 2014  
Page 4

**5) Additional Specification Document**

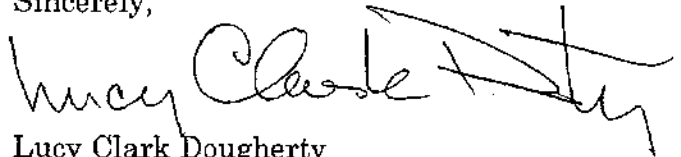
- Bates range: GMNHTSA000197571 - GMNHTSA000197577
- This document is a design information drawing for part number 10392423.

GM's production today is contained on a DVD bearing the following Bates range: GMNHTSA000197571 to GMNHTSA000200563. The encryption key for the DVD is 4EFA36DA2B5BE539090CE.

Please note that Excel spreadsheets for the EWR reports and for the warranty files have been provided in native format.

GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

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[lucy.dougherty@gm.com](mailto:lucy.dougherty@gm.com)

March 27, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") third interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

**1) Litigation Documents**

GM submits the following litigation-related documents in response to the Special Order.

**a) Melton Documents**

- These documents are submitted on an external hard drive bearing Bates range GMNHTSA000002904 - GMNHTSA000197570.
- Enclosed are copies of deposition transcripts and other materials from the *Melton* litigation. This production does not include all materials related to the *Melton* case. We may submit additional materials relating to the case in upcoming productions.
- Copies of one document from the *Melton* litigation have been submitted to the Chief Counsel of NHTSA in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding future

O. Kevin Vincent, Esq.  
March 27, 2014  
Page 2

vehicles. This document is submitted on discs that bear the Bates range GMNHTSA000218055 - GMNHTSA000218119.

**b) Other Litigation Materials**

- GM also submits the enclosed portions of files relating to other litigation matters.
- These files are submitted on the external hard drive referenced above, and bear the following Bates range: GMNHTSA000149621 - GMNHTSA000197570.

**2) Not In Suit Matter ("NISM") materials**

- Bates range: GMNHTSA000200564 - GMNHTSA000218054.
- Today's submission includes certain files relating to Not In Suit Matters ("NISMs"). Please note that these files do not include full metadata because certain documents or pages have been withheld as privileged and the metadata may contain privileged information. Please note, however, that the production does include: (a) full OCR text of all non-privileged text in the files; and (b) metadata as to the document custodian and document parent/child relationship. Please let us know if you would like the additional metadata, which we can then process following a privilege review.

In addition, enclosed are copies of the following documents that will be submitted to the House Energy and Commerce Committee today, some of which are also responsive to the Special Order:

**3) Warranty Data**

- Bates range: GMNHTSA000218120 - GMNHTSA000218126
- As discussed in our letter dated March 26, 2014, we submit today the enclosed warranty reports for the relevant model year 2003 vehicles for airbag and ignition switch issues, and reports for all relevant model years on stall issues. Explanations regarding the methodology used in generating these reports and the breadth of the Committee's request are included in GM's letter of March 26, 2014. With regard to the model year 2003 data, the country field that is used to determine relevant warranty data was blank. In order to obtain warranty information for the 2003 model year that might be responsive, GM used the country of sale as a substitute. GM continues to evaluate warranty data and the scope of the

O. Kevin Vincent, Esq.  
March 27, 2014  
Page 3

Committee's request and may submit further warranty data in the future.

GM's production today is contained on: (a) an external hard drive bearing the Bates range GMNHTSA000002904 - GMNHTSA000197570; and (b) DVDs bearing the following Bates ranges:

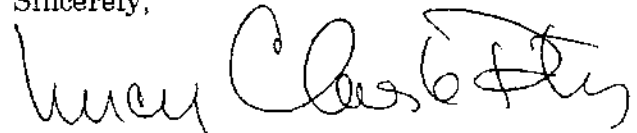
- GMNHTSA000200564 - GMNHTSA000218054,
- GMNHTSA000218055 - GMNHTSA000218119, and
- GMNHTSA000218120 - GMNHTSA000218126.

The encryption key for the external hard drive and the DVDs is 4EFA36DA2B5BE539090CE.

Please note that Excel spreadsheets for the warranty files have been provided in native format.

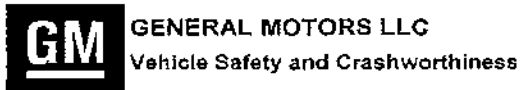
GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



March 27, 2014

2014 MAR 27 PM 4: 32

OFFICE OF  
CHIEF COUNSEL

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Third Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") third interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two compact discs ("CD") labeled with the Bates range GMNHTSA000218055 - GMNHTSA000218119. The label of one of these CDs also bears the words "Confidential Business Information"; this CD contains an unredacted version of the document for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request 4(e) of the Special Order.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed CDs: (1) a complete copy of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted. Tomorrow, GM will supplement this filing with a second complete copy of the submission, as required by 49 C.F.R. 512.5(3).

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 March 27, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000218055 - GMNHTSA000218119)	Analysis and evaluation of GM's future designs and design strategies.

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disk label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

Letter to O. Kevin Vincent  
14V047 Request  
March 27, 2014  
Page 3 of 4

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with a prominent initial "M." and a long, sweeping underline.

M. Carmen Benavides, Director  
Product Investigations and Safety Regulations

Enclosure: As stated

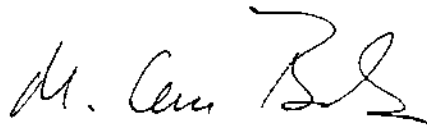


Letter to O. Kevin Vincent  
14V047 Request  
March 27, 2014  
Page 4 of 4

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Product Investigations and Safety Regulations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated March 27, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by the responsible GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 27th day of March 2014.



M. Carmen Benavides, Director  
Product Investigations and Safety Regulations



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

March 28, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") fourth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents that will be submitted to the House Energy and Commerce Committee today, some of which are also responsive to the Special Order:

**1) Warranty Data**

- Bates range: GMNHTSA000218127 - GMNHTSA000218131
- We are producing today additional warranty claim data which reflects additional labor codes that have been used in GM's searches. Given the nature of the labor codes, these reports will include some information responsive to the House Energy & Commerce Committee request, but also will include other conditions unrelated to the Committee's request. GM continues to evaluate warranty data and the scope of the Committee's request and may have additional productions of warranty data in the future.

O. Kevin Vincent, Esq.  
March 28, 2014  
Page 2

2) *Melton* litigation document

- Bates range: GMNHTSA000218055 - GMNHTSA000218119
- Yesterday, GM submitted a request that certain portions of a document from the *Melton* litigation be afforded treatment as confidential business information, in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding future vehicles. As required by 49 C.F.R. 512.5, GM submitted yesterday: (1) a complete copy of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted. Today, GM supplements yesterday's filing with a second complete copy of the submission, as required by 49 C.F.R. 512.5(3).

GM's production today is contained on discs bearing the following Bates ranges:

- GMNHTSA000218055 - GMNHTSA000218119, and
- GMNHTSA000218127 - GMNHTSA000218131

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

Please note that Excel spreadsheets for the warranty files have been provided in native format.

GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

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*lucy.dougherty@gm.com*

March 31, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") fifth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents that were submitted to the House Energy and Commerce Committee on Saturday, March 29, 2014, some of which are also responsive to the Special Order:

**1) Executive Field Action Decision Committee ("EFADC")  
presentations**

- Bates range: GMNHTSA000218132 - GMNHTSA000218136
- Today's production includes three EFADC presentations concerning the March 27, 2014 ignition switch service parts recall.

**2) Warranty Data**

- Bates range: GMNHTSA000218137 - GMNHTSA000218141
- We are producing today additional warranty claim data relating to the key insert part. GM is continuing to evaluate warranty data and the scope of the House Energy and Commerce

O. Kevin Vincent, Esq.  
March 31, 2014  
Page 2

Committee's request and may submit further warranty data in the future.

### **3) Other Documents Responsive to House Energy and Commerce Committee Requests**

- Bates range: GMNHTSA000218142 - GMNHTSA000228602
- With respect to some of the Committee's broader requests, such as those that cover communications, memoranda, or analyses of a variety of topics, the search and review process is particularly time consuming. GM's production today is the first of what will be many installments of document productions in response to the Committee's broader requests, some of which may also be responsive to the Special Order. Please note that in order to expedite this portion of the production, certain large excel files have been produced solely in native format. We would be happy to follow-up at a later date with TIF versions of these documents if you so request. In addition, full metadata has not been included for certain files containing privilege redactions because it is possible that the metadata contains privileged information. The production does, however, include full OCR text of all nonprivileged text in the files, and metadata as to the document custodian and document parent/child relationship are also included. Please let us know if you would like the additional metadata, which we can then process following a privilege review.

GM's production today is contained on discs bearing the following Bates ranges:

- GMNHTSA000218132 - GMNHTSA000218136
- GMNHTSA000218137 - GMNHTSA000218141, and
- GMNHTSA000218142 - GMNHTSA000228602

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

Please note that Excel spreadsheets for the warranty files have been provided in native format.

O. Kevin Vincent, Esq.  
March 31, 2014  
Page 3

GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lucy Clark Dougherty".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
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*lucy.dougherty@gm.com*

March 31, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") sixth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

**1) Field Actions, Technical Service Bulletins and Preliminary Information Bulletins**

- Bates range: GMNHTSA000228603 - GMNHTSA000229027
- Today's production includes additional Field Actions, Technical Service Bulletins, and Preliminary Information Bulletins, as well as communications sent to dealers for the vehicles within the scope of Safety Recall Nos. 13454 and 14063. Included with this data is a summary of the Field Actions. Some of the documents we are producing today were previously produced.

**2) Warranty Data**

- Bates range: GMNHTSA000229028 - GMNHTSA000229032
- We are also producing today additional warranty claim data relating to ignition switch part numbers, exclusive of labor codes

O. Kevin Vincent, Esq.  
March 31, 2014  
Page 2

and the Bill-of-Material row previously searched. GM may submit further warranty data in the future.

3) *Melton Documents*

- Bates range: GMNHTSA000229033 - GMNHTSA000230628
- Today's production also includes additional materials relating to the *Melton* litigation.

GM's production today is contained on discs bearing the following Bates ranges:

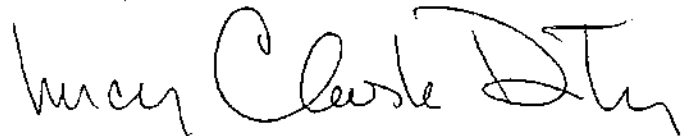
- GMNHTSA000228603 - GMNHTSA000229027
- GMNHTSA000229028 - GMNHTSA000229032, and
- GMNHTSA000229033 - GMNHTSA000230628

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

Please note that Excel spreadsheets for the warranty files have been provided in native format.

GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated





Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

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*lucy.dougherty@gm.com*

April 3, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") seventh interim, partial response to the Special Order dated March 4, 2014.

Enclosed are copies of the following documents which are responsive to the Special Order:

- 1) **NHTSA's Information Request issued February 17, 2010, and GM's responses thereto concerning Product Safety Recall 10023 that were produced in the *Melton* litigation**
  - Bates range: GMNHTSA000230629 – GMNHTSA000246683
  - Today's submission includes documents related to an Information Request ("IR") issued by NHTSA to GM on February 17, 2010, concerning GM's 2010 Product Safety Recall 10023 related to power steering. These documents were produced in the *Melton* litigation. Enclosed are NHTSA's requests, GM's production to NHTSA in response thereto, and related communications between GM and NHTSA.

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**2) The investigative file of the Field Performance Assessment Engineer assigned in August 2011**

- Bates range: GMNHTSA000246684 – GMNHTSA000248069
- As stated in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, “in August 2011, a Field Performance Assessment Engineer (“FPAE”) was assigned to move forward with an FPE investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts.”
- This FPAE maintained an electronic file containing documents associated with the investigation, which GM submits today.
- Copies of one document from the FPAE investigative file have been submitted to the Chief Counsel of NHTSA in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding future vehicles. This document is submitted on discs that bear the Bates range GMNHTSA000248011 – GMNHTSA000248069, one DVD which includes the redacted version of the document and one DVD which includes the unredacted version. (Please note that this document is identical to one submitted on March 27, 2014, bearing Bates range GMNHTSA000218055 - GMNHTSA000218119, and that a confidentiality request for that document was also submitted on the same date.)

**3) Lawsuits, Not-In-Suit Matters (“NISM”) and customer complaint files in which the recall condition may have caused or contributed to airbag non-deployment in frontal-impact crashes**

- Bates range: GMNHTSA000253372 – GMNHTSA000257776
- The chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, identify a number of frontal-impact crashes in the United States involving the recalled vehicles in which the recall condition may have caused or contributed to the airbags’ non-deployment, based on the data and information collected, reviewed, and analyzed as of the dates of the submissions.

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- On March 25, 2014, we produced a list of matters in which the recall condition may have caused or contributed to airbag non-deployment in frontal-impact crashes. On March 27, 2014, we produced the underlying files for the matters on the list and we also advised that further review and analyses were underway.
- As a result of further review, GM has identified additional responsive matters. Specifically, GM has identified two lawsuits, fifteen NISMs, and two customer complaint files involving the recalled vehicles in which the recall condition may have caused or contributed to airbag non-deployment in frontal-impact crashes. One of the customer complaint files was previously produced on March 26, 2014 as part of the EWR request letters and TREAD data production. See Bates range GMNHTSA000198612 --GMNHTSA000198623.
- Please note that the NISM files do not include full metadata because certain documents or pages have been withheld as privileged and the metadata may contain privileged information. Please note, however, that the production does include: (a) full OCR text of all non-privileged text in the files; and (b) metadata as to the document custodian and document parent/child relationship. Please let us know if you would like the additional metadata, which we can then process following a privilege review.

#### 4) Documents related to NHTSA, Continental and Delphi

- Bates ranges:
  - GMNHTSA000248070 – GMNHTSA000253371
  - GMNHTSA000258205 – GMNHTSA000263553
- This production includes communications between GM and NHTSA, communications and documents related to meetings between GM engineers and Continental representatives in 2007 and 2009, and documents related to Delphi and the ignition switch change. GM is continuing to search electronically stored information and will provide further responsive documents as they are identified.

#### 5) Documents received from Delphi on March 31, 2014

- Bates range: GMNHTSA000257777 – GMNHTSA000258204

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- On March 31, 2014, GM received certain documents from Delphi related to the ignition switch installed in vehicles subject to the recall announced on February 7, 2014. These documents address component parts of the ignition switch and changes made to the ignition switch in 2006. The documents include e-mail communications between GM and Delphi, analyses and test reports, and records related to the Production Part Approval Process ("PPAP") for the ignition switch.

GM's production today is contained on the following media:

- two DVDs bearing the Bates range GMNHTSA000253372 – GMNHTSA000257758;
- two flash bearing the Bates range GMNHTSA000257759 - GMNHTSA000263553;
- two flash drives bearing the Bates range GMNHTSA000230629 – GMNHTSA000253371 (excludes the CBI GMNHTSA000248011 - GMNHTSA000248069);
- two DVDs bearing the Bates range GMNHTSA000248011 - GMNHTSA000248069 (includes redacted CBI document); and
- two DVDs bearing the Bates range GMNHTSA000248011 - GMNHTSA000248069 (includes unredacted CBI document).

In its entirety, GM's production today bears the following Bates range:

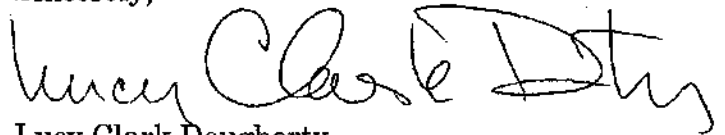
- GMNHTSA000230629 –GMNHTSA000263553.

The encryption key for the discs is 4EFA36DA2B5BE539090CE.

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GM's investigation and searches for documents are ongoing. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Lucy Clark Dougherty". The signature is written in black ink and is positioned above the printed name.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



GENERAL MOTORS LLC  
Vehicle Safety and Crashworthiness

April 3, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Seventh Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") seventh interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA000248011 - GMNHTSA000248069. The label of one of these discs also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request 81 of the Special Order. (Please note that this document is identical to one submitted on March 27, 2014, bearing Bates range GMNHTSA000218055 - GMNHTSA000218119, and that a confidentiality request for that document was also submitted on the same date.).

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 April 3, 2014  
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The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000248011 – GMNHTSA000248069	Analysis and evaluation of GM's future designs and design strategies.

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disk label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

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14V047 Request  
April 3, 2014  
Page 3 of 4

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with the first name "M." and last name "Benavides" clearly visible.

M. Carmen Benavides, Director  
Field Product Investigations and Evaluations

Enclosure: As stated

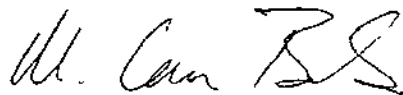


Letter to O. Kevin Vincent  
14V047 Request  
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## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Field Product Investigations and Evaluations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated April 3, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 3rd day of April 2014.



M. Carmen Benavides, Director  
Field Product Investigations and Evaluations

**UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**  
1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

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**In re:** :  
 :  
TQ14-001 :  
NHTSA Recall No. 14V-047 :  
 :  
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**GENERAL MOTORS LLC’S EIGHTH INTERIM RESPONSE TO  
SPECIAL ORDER**

General Motors LLC (“GM”) hereby submits this eighth interim response to the Special Order issued by the Secretary of Transportation on March 4, 2014.

At a meeting on March 19, 2014, NHTSA representatives agreed to production priorities. GM has focused on these priority areas, and between March 25, 2014 and April 3, 2014, GM has made seven document productions comprising more than 17,500 documents (totaling approximately 260,000 pages).

During our meeting on March 19, 2014, we discussed the submission of an index of the documents produced. In lieu of a formal index, each of GM’s submissions in response to the Special Order has been accompanied by a letter referring to specific Bates ranges and a description of documents in each Bates range. We remain available to discuss ways in which this approach can be modified to meet NHTSA’s needs.

GM is working diligently to complete its response to the Special Order and, as previously discussed with NHTSA representatives, will supplement this filing on a rolling basis.

Only those sections of the requests to which a response is provided will be quoted.

### **REQUESTS**

**Request No. 1.** Separately for each model and model year vehicle included within this recall, state the manufacturer and part number of the ignition switch.

### **RESPONSE**

The manufacturer and part number of the ignition switch for each model and model year vehicle included within this recall are provided in the following chart. The following response is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>Ignition Switch Part Number</b>	<b>Manufacturer of Ignition Switch</b>
2003	Saturn	Ion	12450250	Delphi
2004*	Saturn	Ion	12450250	Delphi
2005	Saturn	Ion	10392423	Delphi
2005	Chevrolet	Cobalt	10392423	Delphi
2006	Saturn	Ion	10392423	Delphi
2006	Chevrolet	Cobalt	10392423	Delphi
2006	Chevrolet	HHR	10392423	Delphi
2006	Pontiac	Solstice	10392423	Delphi
2007	Saturn	Ion	10392423	Delphi
2007	Chevrolet	Cobalt	10392423	Delphi
2007	Chevrolet	HHR	10392423	Delphi
2007	Saturn	Sky	10392423	Delphi
2007	Pontiac	G5	10392423	Delphi
2007	Pontiac	Solstice	10392423	Delphi

\* GM released ignition switch part number 10392423 as a service part beginning in April 2004.

Also, on March 27, 2014, as amended on March 28, 2014, GM submitted a 573 Letter to NHTSA regarding its determination to conduct a safety recall relating to the following Ignition & Start Switch Housing Kits that contain or may contain ignition switch part number 10392423: GM Parts and ACDelco service part numbers 10392737, 15857948, 15854953, 15896640, and 25846762. GM records indicate these service parts may have been installed during repairs in some 2008-2010 model year (MY) Chevrolet Cobalt, 2008-2011 MY Chevrolet HHR, 2008-2010 MY Pontiac Solstice, 2008-2010 MY Pontiac G5, and 2008-2010 MY Saturn Sky vehicles, as well as in some other vehicles.

**Request No. 2.**

Request No. 2 poses a number of technical engineering and factual questions. Below are GM's responses to two of the questions included in Request No. 2.

**Questions:** Discuss and describe the defect condition that can result in the subject switch moving from the run to the accessory or off position, or an interim position between these positions, under certain driving and/or crash incident conditions, including which specific subcomponent(s) (e.g., the detent plunger and/or spring) is/are the cause of, or involved in the defect condition.

Also discuss and describe any and all outside influences that may affect the likelihood that the defect condition will occur, such as key chain type or weight, non OEM ignition key designs, the specific vehicle dynamic/crash conditions that are of most concern, and any driver/occupant actions/practices that may be a factor.

**RESPONSE**

The torque performance of the ignition switch is the result of the plunger spring interacting with the detent profiles on the underside of the rotor as the plunger moves through the various detents. A PDF file with a diagram titled "REQUEST NUMBER TWO" is being provided with this submission. Should the detent plunger spring exert insufficient force on the detent profiles, low ignition switch torque could lead to unintended rotation or movement of the ignition switch

out of the “run” position, even momentarily, to the “accessory” or “off” positions if the key ring is carrying added weight.

In the course of physical and analytical evaluations that GM has made over the past several weeks, the ignition switch did not turn from the “run” to “accessory” position in any of the tests conducted with only a typical key ring and the production key in the lock cylinder. GM has determined that, if the key ring is carrying additional weight, various combinations of the following outside influences affect the likelihood that low ignition switch torque could lead to unintended rotation or movement of the ignition switch out of the “run” position, even momentarily:

- Mass of additional objects hanging from the key ring
- Length of additional objects hanging from the key ring
- Length of the slot in the key (through which the key ring is placed)
- Physical position of the of the ignition cylinder axis in the steering column (plan view, side view, rear view and angle)
- Significant vertical (up/down) and longitudinal (fore/aft) road inputs.
- Size of occupant, position of seat and column angle relative to ignition key

According to GM’s analyses, including application of principles of physics, when only the production ignition key is inserted in the lock cylinder, sufficient torque (twisting force) will not be generated to turn the ignition key from the "run" to "accessory" position due to road inputs. This is due to the symmetry of the production key, as there is no unbalanced mass that can react to acceleration from

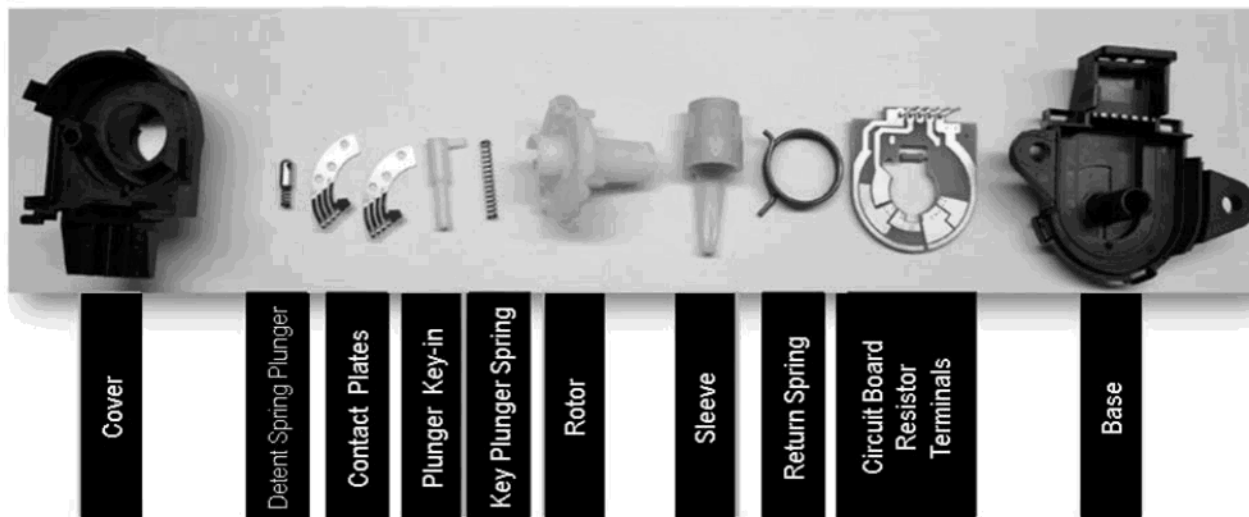
road inputs and create the necessary twisting force on the ignition key. As a result, our analyses show that a production key in the lock cylinder by itself will not exert sufficient torque to turn the ignition switch to the "accessory" position.

We have included diagrams that illustrate the concepts explained above with this submission.

Physical testing over a variety of aggressive road surfaces producing significant vertical and longitudinal road inputs confirmed this analysis and that the addition of a typical key ring does not affect the performance, i.e. the ignition switch position did not move out of "run."

## Ignition Switch BOM

- Delphi PN – 28443966 (SWITCH ASM-ANTITHEFT IGNITION)



**Diagram A**

**Question:** Provide a list of every make, model, and model year vehicle GM manufactured using the subject ignition switch, or any of the suspected and modified subcomponents, as discussed above.

## RESPONSE

GM provided these details in the 573 submissions filed with the agency. These submissions were based on the information that had been collected, reviewed, and analyzed as of the dates of those submissions. GM's investigation and analysis are continuing.

### VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2005	140,978	08/03/2004	06/17/2005	Cobalt	*
Chevrolet	A	2006	229,578	04/05/2005	06/09/2006	Cobalt	"
Chevrolet	A	2007	215,667	04/20/2006	08/16/2007	Cobalt	"
Pontiac	A	2007	32,899	04/20/2006	08/06/2007	G5	"
GM Total:			619,122				



VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2006	113,911	04/11/2005	06/22/2006	HHR	*
Chevrolet	A	2007	99,672	05/15/2006	06/23/2007	HHR	"
Pontiac	M	2006	18,750	03/16/2005	06/23/2006	Solstice	"
Pontiac	M	2007	21,310	06/05/2006	06/15/2007	Solstice	"
Saturn	A	2003	96,358	06/01/2002	07/24/2003	Ion	"
Saturn	A	2004	121,107	04/29/2003	08/07/2004	Ion	"
Saturn	A	2005	71,024	04/27/2004	06/06/2005	Ion	"
Saturn	A	2006	96,227	04/13/2005	05/05/2006	Ion	"
Saturn	A	2007	94,118	04/05/2006	03/28/2007	Ion	"
Saturn	M	2007	15,547	12/06/2005	06/14/2007	Sky	"
GM Total:			748,024				

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2008	176,471	05/29/2007	06/26/2008	Cobalt	*
Chevrolet	A	2009	141,592	04/15/2008	08/11/2009	Cobalt	"
Chevrolet	A	2010	116,275	04/16/2009	06/23/2010	Cobalt	"
Chevrolet	A	2008	99,227	05/01/2007	06/26/2008	HHR	"
Chevrolet	A	2009	80,782	04/08/2008	06/18/2009	HHR	"
Chevrolet	A	2010	64,733	04/20/2009	06/15/2010	HHR	"
Chevrolet	A	2011	68,455	04/22/2010	05/27/2011	HHR	"
Pontiac	A	2008	20,206	05/30/2007	06/23/2008	G5	"
Pontiac	A	2009	20,662	05/22/2008	08/10/2009	G5	"
Pontiac	A	2010	3	04/16/2009	04/17/2009	G5	"
Pontiac	M	2008	14,088	04/24/2007	06/19/2008	Solstice	"
Pontiac	M	2009	4,207	04/17/2008	07/28/2009	Solstice	"
Pontiac	M	2010	19	04/21/2009	05/28/2009	Solstice	"
Saturn	M	2008	12,982	04/24/2007	06/19/2008	Sky	"
Saturn	M	2009	4,078	04/17/2008	05/19/2009	Sky	"
Saturn	M	2010	8	04/23/2009	05/26/2009	Sky	"
GM Total:			823,788				

**Request No. 3.**

**Questions:** Discuss and explain in precise detail how the defect condition involving the subject switch moving from the run to the accessory or off or an interim position results in, or may result in the disablement of one or both frontal airbags, or can otherwise affect in any way other components or functionality of a passive safety system intended for occupant protection during a subject vehicle crash.

Discuss and explain how the airbag sensing and diagnostic module (“SDM”) is affected by the defect condition, and how and why the SDM determines or otherwise causes the disablement of airbags or other active components when the defect condition occurs.

State whether or not GM intended for the subject vehicle frontal airbags to deploy in a crash when the ignition switch is in the accessory position, or in the off position, or in an interim position, and describe any additional conditions or factors that may affect whether or not the SDM disables the frontal airbags when the ignition switch is in the accessory, or run position (e.g., time elapsed since key-on, or time elapsed since key-off).

**RESPONSE**

The airbag control module in the recalled vehicles at issue is known as the Sensing and Diagnostic Module (“SDM”). The SDM is an onboard electronic module

which functions to continuously monitor the air bag system in the car while the ignition is on, to deploy the air bags, and to record certain crash and air bag system data in deployment and non-deployment level crash events. The SDM also functions as an energy reserve for air bag deployment should a vehicle lose power during an accident. (See discussion below regarding the effect when the ignition switch moves out of the “run” position before a crash event has begun, and therefore before the air bag sensing algorithm has been activated.) The SDM senses vehicle decelerations, such as those experienced when the vehicle is in a frontal or near frontal collision. In these types of impacts, the occupant’s motion will be primarily forward into the seat belt and frontal air bag. If the SDM senses that the vehicle is stopping very quickly (1.5 – 2.0 g’s of deceleration), the sensing algorithm will be activated and this point in time is considered “algorithm enable.” Once the algorithm is enabled, the SDM will monitor vehicle inputs and perform calculations to determine if airbags should be deployed. In order for the frontal airbags to deploy, the vehicle must exceed a pre-determined deployment threshold. This threshold will be exceeded when the SDM experiences a sufficient level of longitudinal deceleration to warrant deployment of the frontal air bags.

The SDM has the functionality that governs airbag deployment. The SDM takes the position of the ignition switch as an input when deciding to deploy an airbag. The SDM is designed to provide the ability to command airbag deployment when the ignition switch is in the “run” and “crank” positions, and not in the “accessory” and “off” positions.

In the recalled Saturn Ion vehicles, the ignition switch position governs the power supply to the SDM. Moving the ignition switch from the “run” position to the “accessory” or “off” positions will turn off the primary power supply to the SDM. Without primary power supply to the SDM, it will operate on energy reserve for a brief period of time. Based on conditions, that time period could be up to 150 ms. Please see Figure 1 below.

In the recalled vehicles other than Saturn Ion, the SDM is powered directly by the battery and the ignition switch position is an input to the SDM. Movement of the ignition switch from the “run” position to the “accessory” or “off” positions will be detected by the Body Control Module (BCM). The BCM broadcasts the vehicle’s power mode status (“off”, “accessory”, “run”, and “crank”) over the vehicle communications network to the SDM and other control modules on the vehicle. The SDM uses the ignition position information as an input to the airbag sensing algorithm.

In both SDM systems (i.e., the Ion system and the system used by the other recalled vehicles), air bag sensing algorithms are enabled and sensing for a crash event when the vehicle’s key is in “run”, and will command deployment if required. If the switch moves out of the “run” position after a crash event has begun and the air bag sensing algorithm has been activated, then the SDM will ignore the ignition state change and the sensing algorithm will remain active and continue to function, sense the crash, and command deployment of the restraints, if necessary. If the ignition switch moves out of the “run” position before a crash

event has begun, and therefore before the airbag sensing algorithm has been activated, the SDM detects the vehicle is in “off” or “accessory” and disables the sensing algorithm. The SDM would then not command airbag deployment. If the switch moves out of run momentarily, the sensing algorithm will reinitialize and again be available to command deployment of the frontal airbags within three seconds.

The technology of SDMs used in GM vehicles has evolved over time. One SDM feature that has remained constant is the fact that the SDM’s crash sensing algorithm can be enabled only when the ignition switch is in the “run” or “crank” positions, and not in the “accessory” or “off” positions. GM believes that this design feature helps minimize the risk to out-of-position occupants, e.g. anyone who is up against, or very close to any airbag such as a child in the car’s front seats when the vehicle is stationary, or an owner who may be servicing the vehicle.

A vehicle with an ignition switch that is not in the “run” position will have the engine off. Enabling the airbag system to deploy with the ignition switch out of the “run” position while occupants would be free to move about the occupant compartment provides a greater potential for the occupant to be out of position and potentially injured by the deploying airbag. In fact, GM warns in its owner’s manual, “Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward.”

Also noted by NHTSA at Safercar.gov, “Because air bags deploy very rapidly, serious or sometimes fatal injuries can occur if the occupant is too close to - or is in direct contact with - the air bag when it first begins to deploy.” Additionally, a literature search of other OEMs owner’s manuals support this operation as an industry practice.

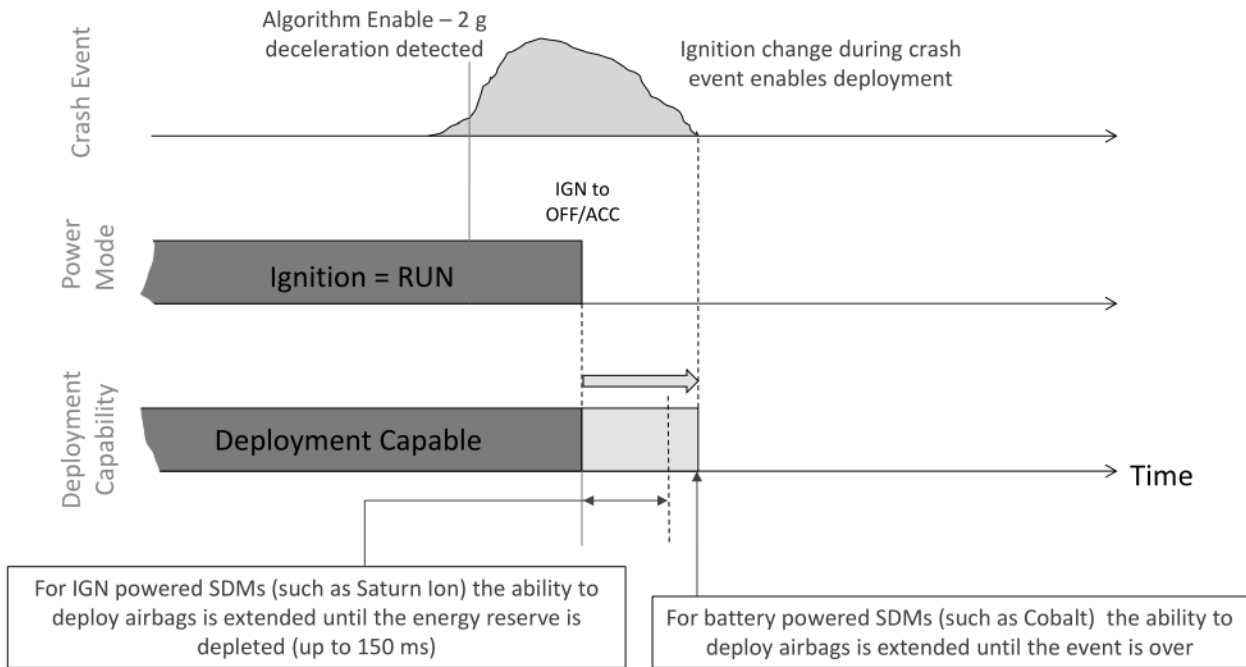
**Question:** State whether or not the SDM has any built-in, or onboard energy storage capability intended to provide power for the case where the normal power supply is interrupted, either through the ignition switch or via a crash related consequence (such as mechanical damage to the electrical harnessing, etc.), and if so, discuss the backup system and its capabilities and limitations.

### RESPONSE

For the recalled vehicles, the SDM has onboard energy reserve capacity intended to provide enough power to continue sensing a crash and deploy frontal airbags for up to 150 milliseconds after the primary power supply to the SDM is interrupted.

The SDM requires power in order to operate. The SDMs used in the Saturn Ion and the rest of the recalled vehicles receive their primary power in different ways. In the Saturn Ion, the SDM receives its primary power through the ignition switch. In the rest of the recalled vehicles, the SDM receives its primary power from the battery. This difference affects how the ignition switch position influences the functionality of the SDM, as shown in Figure 1 below.

## SDM Deployment Capability with IGN Change During Crash Event\*



\*Conceptual diagram only, not to scale.

**Question:** State whether or not other nonsubject vehicle airbag systems would be similarly affected (i.e., result in disabled airbags) by the movement of the ignition switch during a crash incident, and if they exist, discuss and explain any differences in non-subject vehicle airbag system performance, and why they occur.

### RESPONSE

Non-subject vehicle airbag systems would be affected by the ignition switch position in the same way as in subject vehicle airbag systems.

Airbag sensing algorithms are enabled and sensing for a crash event when the vehicle's key is in "run", and will command deployment if required. If the

switch moves out of the “run” position after a crash event has begun and the airbag sensing algorithm has been activated, then the SDM will ignore the ignition switch position change and the sensing algorithm will remain active and continue to function, sense the crash, and command deployment of the airbags, if necessary. If the ignition switch moves out of the “run” position before a crash event has begun, and therefore before the air bag sensing algorithm has been activated, the SDM detects the vehicle is in “off” or “accessory” and disables the sensing algorithm. If the switch moves out of run momentarily, the sensing algorithm will reinitialize and again be available to command deployment of the airbags within three seconds.

**Request No. 4.** Separately for each model and model year vehicle included within this recall, state the number of each of the following received by GM, or of which GM is otherwise aware, which relate or may relate to the defect:

- a. The number of consumer complaints, including those from fleet operators;
- c. Reports involving a crash, injury, or fatality;
- d. Third-party arbitration proceedings where GM is or was a party to the arbitration;
- e. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

#### **RESPONSE**

On March 25, 2014, GM submitted to NHTSA a list of lawsuits, not-in-suit matters (“NISM”), and incidents without claims. This list includes the frontal-impact crashes identified in the chronologies submitted to NHTSA on February 24,



2014 and March 11, 2014, which involved recalled vehicles in which the recall condition may have caused or contributed to the airbags' non-deployment, based on the data and information collected, reviewed, and analyzed as of the dates of the submissions.

As we indicated in our letter dated March 25th, GM continues to review its records, in part to determine whether there are additional crashes in which the recall condition may have caused or contributed to the airbags' non-deployment. As a result of this review, GM to date has identified an additional 15 NISMs, 2 lawsuits and 2 customer complaint files involving frontal-impact crashes in which the recall condition may have caused or contributed to the airbags' non-deployment. As of the date of this submission, GM is not aware of any relevant third-party arbitration proceedings.

The following table reflects, as of April 3, 2014, the number of reports involving a crash, injury, or fatality, and lawsuits in which GM is or was a defendant for each model and model year vehicle included within this recall, that were received by GM or of which GM is otherwise aware, in which the recall condition may have caused or contributed to airbags' non-deployment in frontal-impact crashes:

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2003	Saturn	Ion	0	0
2004	Saturn	Ion	4	4
2005	Saturn	Ion	1	2
2005	Chevrolet	Cobalt	13	2
2006	Saturn	Ion	3	0
2006	Chevrolet	Cobalt	8	0
2006	Chevrolet	HHR	1	0
2006	Pontiac	Solstice	0	0
2007	Saturn	Ion	3	0
2007	Chevrolet	Cobalt	8	0
2007	Chevrolet	HHR	2	0
2007	Saturn	Sky	0	0
2007	Pontiac	G5	3	0
2007	Pontiac	Solstice	0	0

\* The response to Request 4(c) includes only NISMs, incidents without claims, and customer complaint files. It does not include lawsuits.

A Microsoft Excel file with this information titled "REQUEST NUMBER FOUR" is being provided with this submission. Further review and analyses continue; should GM identify further information that is responsive, GM will supplement its response.

GM's investigation and searches for documents are ongoing. Should ongoing collection, reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 5.** Separately, for each item within the scope of your response to Request No. 4, state the following information:

- a. GM's file number or other identified used;
- b. The category of the item, as identified in Request No. 4 (e.g., consumer complaint);
- c. Vehicle owner or fleet name (and fleet contact person), address and telephone number;
- d. Vehicle's make, model, and model year;
- e. Vehicle's VIN;
- f. Vehicle's mileage at the time of incident;
- g. Incident date (in "dd/mm/yyyy" date format);
- h. Report or claim date (in "dd/mm/yyyy" date format);
- i. Whether a crash is alleged;
- j. Number of alleged injuries; and
- k. Number of alleged fatalities, if any.

Provide the information in a Microsoft Access file titled "REQUEST NUMBER FIVE."

## RESPONSE

To date, GM has identified certain lawsuits, NISMs, incidents without claims, and customer complaint files concerning vehicles included within this recall in which the recall condition may have caused or contributed to airbags' non-deployment in frontal-impact crashes as of April 3, 2014. Attached is a list of these matters with the information requested in Request No. 5 with the following exceptions:

- As relates to 5(c), we have not yet been able to verify the vehicle owner and contact information. We have included the name of the individual involved in the crash, who may be the owner.
- As relates to 5(f), we have been able to identify the mileage for some, but not all of the vehicles related to these matters.
- As relates to 5(h) and the "report or claim date," we have identified the date on which the matter was opened at GM.

A Microsoft Access file with this information titled "REQUEST NUMBER FIVE" is being provided with this submission. Further review and analyses continue; should GM identify further information that is responsive, GM will supplement its response.

**Request No. 6.** Provide copies of all documents related to each item within the scope of Request No. 4. Organize the documents separately by category

(e.g., consumer complaints, field reports, etc.) and in chronological order. These documents should include, but not be limited to, documentation of the 23 frontal-impact crashes identified in GM's chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report.

### RESPONSE

On March 27, 2014, GM submitted materials relating to certain NISMs involving incidents identified by GM engineers at the time of the submission of the chronologies as frontal-impact crashes in which the recall condition may have caused or contributed to the airbags' nondeployment. These documents were produced at Bates range GMNHTSA000200564-0218054.

As stated in the response to Request No. 5 above, GM has identified to date an additional 15 NISMs, two lawsuits and two customer complaint files involving frontal-impact crashes in which the recall condition may have caused or contributed to the airbags' non-deployment. GM submits today, under separate cover, documents related to these additional matters in its seventh interim, partial response to the Special Order. *See* Bates range GMNHTSA000253372-57776.

GM has previously submitted documents that are responsive to Requests 4(a), 4(b), and 6. Specifically, GM has submitted PRTS and FPR reports at Bates range GMNHTSA000000003-01990, certain of which document relevant consumer complaints and field reports. Also, GM has made numerous submissions of

warranty data (discussed in greater detail in the response to Request 16), some of which also documents relevant consumer complaints and field reports.

GM is continuing to conduct a search for NISM files and customer complaint files in the recall population for problems with ignition, stalls, or airbags' non-deployment and will supplement this response as warranted.

**Request No. 7.** For each lawsuit within the scope of Request No. 4, state the outcome of the lawsuit as to GM.

### RESPONSE

The outcome of each lawsuit referenced in response to Request No. 4 is provided below. The following response is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

1. *Towne v. General Motors Corp., et al.*, Civil Action, 06 CE CG 00759 (Cal. Super. Ct., Fresno County) (GM file number 511176) - ended with a "Confidential Settlement Agreement and General Release of All Claims," dated March 16, 2007.
2. *Tonya Lambert v. General Motors Corp., et al.*, Civil Action No., 11-C-464-1 (W. Va. Cir. Ct., Harrison County) (GM file number 682178) -

ended with a “Confidential Settlement Agreement And Release,” dated August 20, 2012.

3. *Gemmill v. Heritage Saturn, et al.*, Civil Action No., 03C06011923 (Md. Cir. Ct., Baltimore County) (GM file number 511258) - ended with a “Confidential Release, Settlement And Indemnity Agreement,” dated October 9, 2007.
4. *Frei v. General Motors Corp., et al.*, Civil Action No. 2008-11271-31-2 (Pa. Ct. C.P., Bucks County) (GM file number 633669) - ended with a “Release and Indemnification Of All Claims,” dated August 22, 2008.
5. *Erickson v. General Motors Corp., et al.*, Civil Action No. 06-00846 (Tex. Dist. Ct., Van Zandt County) *removed*, Civil Action No. 6:07 cv 13 (E.D. Tex.) (GM file number 624610) - ended with a “Confidential Settlement Agreement And Complete Release,” dated July 22, 2008.
6. *Anderson v. General Motors Corp., et al.*, Civil Action No. 06-00874 (Tex. Dist. Ct., Van Zandt County) (GM file number 489548) - ended with a “Confidential Settlement Agreement And Complete Release,” dated April 14, 2008.
7. *Truttman v. General Motors Corp., et al.*, Civil Action No. 06L208 (Ill. Cir. Ct., St. Clair County) (GM file number 509836) - stayed during GM’s bankruptcy in response to GM’s Notice of Stay, dated June 15,

2009. GM was not a party to any settlement agreement in this lawsuit.

8. *Erica Lambert v. General Motors Corp.*, Civil Action No. 07-646375 (La. Dist. Ct., Parish of Jefferson), *removed*, Civil Action No. 07-3856 (E.D. La.) (GM file number 513096) - ended with a “Receipt, Release and Indemnification Agreement,” dated December 31, 2007.

**Request No. 8.** For each lawsuit within the scope of Request No. 4, provide a copy of the complaint (or most recent amended complaint which names GM).

### **RESPONSE**

GM has submitted the complaints, amended complaints, or petitions regarding the following lawsuits: *Towne* (GM file number 511176) at GMNHTSA000196280-296 *Tonya Lambert* (GM file number 682178) at GMNHTSA000196627-638 and GMNHTSA000196651-656; *Gemmill* (GM file number 511258) at GMNHTSA000196679-692; *Frei* (GM file number 633669) at GMNHTSA000197564-570 and GMNHTSA000197545-552; *Erickson* (GM file number 624610) at GMNHTSA000197458-469 and GMNHTSA000197470-480; *Anderson* (GM file number 489548) at GMNHTSA000196401-405 and GMNHTSA000196428-439; *Truttman* (GM file number 509836) at GMNHTSA000253382-387; and *Erica Lambert* (GM file number 513096) at GMNHTSA000254103-108.



GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing collection, reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 9.** For each lawsuit within the scope of Request No. 4, provide a copy of each transcript of a deposition testimony by any GM employee, former GM employee, consultant, or expert witness.

#### **RESPONSE**

GM has not identified any transcripts of deposition testimony by GM employees, former GM employees, consultants, and expert witness for the lawsuits within the scope of Request No. 4. GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 10.** For each lawsuit within the scope of Request No. 4, provide a copy of each transcript of trial or hearing testimony by any GM employee, former GM employee, GM consultant, or GM expert witness.

#### **RESPONSE**

GM has not identified any trial or hearing testimony by GM employees, former GM employees, GM consultants, or GM expert witness for the lawsuits

within the scope of Request No. 4. GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 11.** For each lawsuit within the scope of Request No. 4, provide a copy of any affidavit or declaration by any GM employee, former GM employee, GM consultant, or GM expert witness submitted to the court.

#### RESPONSE

GM has not identified any affidavits or declarations by GM employees, former GM employees, GM consultants, or GM expert witnesses in the lawsuits within the scope of Request No. 4. GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 12.** For each lawsuit within the scope of Request No.4, provide a copy of any expert witness report by a GM expert witness.

#### RESPONSE

GM has submitted copies of expert witness reports by GM expert witnesses for the following lawsuits: *Anderson* (GM file number 489548) at

GMNHTSA000196440-6517 and *Gemmill* (GM file number 511258) at GMNHTSA000196879-6911.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing collection, reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 13.** For each lawsuit within the scope of Request No. 4, provide a copy of any judgment and opinion in the case which relates to final disposition of the case as to GM.

### **RESPONSE**

GM has not identified any judgments or opinions in the lawsuits identified in response to Request No. 4, in which a finding of liability was made against GM. All of the lawsuits referred to in Request No. 7 were resolved by settlement or were stayed by the bankruptcy court. GM has identified an Agreed Judgment in *Erickson* (GM file number 624610), which was produced at Bates range GMNHTSA000197486-7518. In the Agreed Judgment, the Court approved the parties' agreement of Settlement, without an admission of liability or fault in any way by any party.

GM response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the

internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 14.** Identify all communications prior to February 7, 2014 between GM and NHTSA related to the defect condition.

**Request No. 15.** Identify all communications prior to February 7, 2014 between GM and NHTSA related to the nondeployment of airbags in subject vehicles.

**RESPONSE TO REQUEST NOS. 14 AND 15**

On March 25, 2014, GM submitted to NHTSA a communication between a GM representative and NHTSA at Bates range GMNHTSA000002849-2850. GM conducted further searches for responsive e-mails identified through searching the electronically stored information (“ESI”) of a priority group of individuals who are most likely to have had relevant communications with NHTSA. GM submits today, under separate cover, the results of that review within the Bates range GMNHTSA000248070-253371 and GMNHTSA000258205-263553.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Through ongoing reviews and the internal investigation, GM will supplement its responses to NHTSA.

**Request No. 16.** 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 defect: warranty claims; extended warranty claims; claims for good will services that were provided; and warranty claims or repair made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

### RESPONSE

In partial response to Request No. 16, GM has searched its warranty data for claims involving airbags, ignition switches, and stalls applicable to the 2003-2007 Ion, 2006-2007 HHR, 2006-2007 Solstice, 2007 Sky, 2005-2007 Cobalt and 2007 G5 vehicles, and submitted the results of these searches on March 26-28, 2014, and on March 31, 2014, at Bates ranges GMNHTSA000200556-563, GMNHTSA000200551-555, GMNHTSA000218120-131, GMNHTSA000218137-141, GMNHTSA000229028-9032.

GM's warranty data typically includes the following information relating to each claim:

- Vehicle Identification Number
- Model
- Model year
- Odometer reading at the time of service
- Part number for the part determined by dealer to be the cause of customer complaint
- Customer code (identifies the type of customer complaint)
- Trouble code (identifies what the service technician found to be the cause of customer complaint)
- Labor code (identifies the specific type of service performed)
- Repair Order number
- Date of Repair Order
- Description of cause of the issue

- Customer description of issue
- Description of correction
- Labor cost of repair
- Part cost
- Total claim cost
- Date the vehicle went into service (commonly the date the vehicle was sold)
- Vehicle production date
- Dealer of record
- City, state, country and phone number of repair dealer

GM has also submitted reference documents that: describe the Labor Codes, Trouble Codes, and Customer Codes that are available for searching; show how warranty claims are grouped into related “buckets” of data; and describe the field names and descriptions in the data repository that are used, with other business logic, to create the reporting columns. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

To this end, GM continues to evaluate warranty data and may submit further warranty data in the future.

**Request No. 17.** Provide all documents GM reviewed in preparation of the chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report.

### RESPONSE

In preparing the chronology submitted to NHTSA on February 24, 2014, outside counsel retained by GM reviewed materials including, but not limited to the following: 1) Problem Resolution Tracking System (“PRTS”) reports and Field

Performance Reports (“FPR”), which GM submitted to NHTSA at Bates range GMNHTSA000000003-01990; 2) Service Bulletins, which GM previously submitted at Bates range GMNHTSA000000001-02 and GMNHTSA000001991-02687; 3) certain news articles, which GM previously submitted at Bates range GMNHTSA000197578-0197581; 4) documents relating to the Field Performance Evaluation (“FPE”) process, which GM previously submitted at Bates range GMNHTSA000002735-02822; 5) documents relating to the 2009 and 2007 meetings with Continental representatives, which GM previously submitted at Bates range GMNHTSA000002824-02848 and GM is producing today, under separate cover, Bates range GMNHTSA000248070-253371 and GMNHTSA000258205-263553; 6) “Red X” and “Design For Six Sigma” documents, which GM previously submitted at Bates range GMNHTSA000002688-02734; 7) documents from the *Melton* litigation, which GM previously submitted at Bates range GMNHTSA000002904-0197570; 8) the file maintained by the GM investigating engineer who in 2007 was “tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy, in order to try to identify common characteristics of these crashes,” some of which GM submits today, under separate cover, at Bates range GMNHTSA000246684-48069; 9) the investigative file of the Field Performance Assessment (“FPA”) Engineer assigned in August 2011, which GM submitted to NHTSA today, under separate cover, at Bates range GMNHTSA000246684-48069; 10) EFADC PowerPoint presentations, which GM submitted to NHTSA today, under separate cover, at Bates range GMNHTSA000218132-36; 11) a PowerPoint

presentation prepared by an outside engineer retained by GM in 2013, which was produced at Bates range GMNHTSA000002853-877; 12) documents relating to an October 29, 2013 e-mail exchange between GM and its supplier, which GM submitted to NHTSA at Bates range GMNHTSA000002881-02903; 13) a GM Form 3660 approving ignition switch part change on April 26, 2006, which GM submitted to NHTSA at Bates range GMNHTSA000002896-02898; 14) a cover e-mail and attached agenda for March 29, 2007 meeting between GM and NHTSA, which GM submitted to NHTSA at Bates range GMNHTSA000002849-02850.

At various points throughout the internal investigation, both before and after submission of the chronology to NHTSA, GM employees and attorneys have also reviewed some of these documents.

**Request No. 18.** For each Problem Resolution Tracking System (“PRTS”) inquiry addressed by GM’s chronology (Attachment B) included in its February 24, 2014 Part 573 Report, identify each of the individuals involved in the PRTS inquiry.

### **RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM’s response is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.



**Request No. 19.** Provide a copy of each PRTS report referenced by GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report.

**RESPONSE**

GM has provided a copy of each PRTS report referenced by GM's chronology included in its February 24, 2014 Part 573 Report. These documents were produced to NHTSA by letter dated March 25, 2014, and are Bates stamped as follows GMNHTSA000001000-01027, GMNHTSA000001028-01193, GMNHTSA000001222-01291, GMNHTSA000001727-01741, and GMNHTSA000001742-01820.

**Request No. 21.** Did GM perform any work in 2008 relate[d] to the defect that is the subject of this recall, including by investigating crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.

**RESPONSE**

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA where it identified individuals who may have performed work in 2008 related to the defect which is the subject of this recall (a copy is attached to this submission). GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 22.** GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report refers to a Field Performance Evaluation Review Committee and Field Product Evaluation Recommendation Committee, calling both by the acronym "FPERC." Are these two different committees? If yes, describe the purpose of each committee. If no, explain the reason GM's chronology uses two names for this committee.

**RESPONSE**

GM's chronology included in its February 24, 2014 Part 573 Report inadvertently referred to the Field Performance Evaluation Review Committee as the Field Product Evaluation Recommendation Committee.

**Request No. 24.** State each date on which GM's Field Performance Evaluation Review Committee and/or Field Product Evaluation Recommendation Committee ("FPERC") discussed issues that relate or may relate to the defect that is the subject of this recall.

**RESPONSE**

The Field Performance Evaluation Recommendation Committee ("FPERC") discussed issues relating to the defect on December 4, 2013. This response is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further

information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 25.** State each date on which GM's Executive Field Action Decision Committee discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

### RESPONSE

The dates on which GM's FPERC Field Performance Evaluation Recommendation Committee (FPERC) discussed issues that relate or may relate to the defect that is the subject of this recall were on December 17, 2013 and January 31, 2014.

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM's response to this request remains the same as was previously submitted and is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 29.** On what date(s) did “GM learn[ ] of at least one incident in which a Cobalt lost engine power because the key moved out of the ‘run’ position when the driver inadvertently contacted the key or steering column.” Provide all related documents.

### RESPONSE

According to the November 2004 PRTS N172404, the date on which GM first reported an incident in which a Cobalt lost engine power because the key moved out of the ‘run’ position when the driver inadvertently contacted the key or steering column GM, was on October 29, 2004. GM previously submitted the November 2004 PRTS N172404 to NHTSA at Bates range GMNHTSA000001727-738. Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 30.** Provide all documents related to the referenced incident or incidents “in which a Cobalt lost engine power because the key moved out of the ‘run’ position when the driver inadvertently contacted the key or steering column.”

### RESPONSE

The PRTS N172404, originated on November 19, 2004, was submitted to NHTSA on March 25, 2014, at Bates range GMNHTSA000001727-738. Should ongoing reviews, analysis, and the internal investigation identify further

information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 31.** On what date(s) were “GM employees [ ] able to replicate this phenomenon during test drives”? State the total number of times “GM employees were able to replicate this phenomenon during test drives;” identify each of the individuals involved in this work, and provide all related documents.

**RESPONSE**

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Through ongoing reviews and the internal investigation, GM will supplement its responses to NHTSA.

**Request No. 32.** On what date did GM open the referenced PRTS inquiry?  
On what date did GM close the referenced PRTS inquiry?

**RESPONSE**

PRTS No. N172404 was originated on November 19, 2004 and closed on January 7, 2005. As stated above, GM previously submitted PRTS No. N172404 to NHTSA at Bates range GMNHTSA000001727-738. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 34.** On what date(s) did “GM employees receive new field reports of Cobalts losing engine power”? For each field report, state whether it involved movement of the key “out of the 'run' position when a drive inadvertently contacted the key or steering column.”

### **RESPONSE**

PRTS No. 0793/2005/US was originated on March 9, 2005, and was submitted to NHTSA on March 25, 2014 at Bates range GMNHTSA000001000-1008. According to the PRTS, a GM employee reported on March 9, 2005, that a Cobalt had lost engine power while driving. PRTS No. N182276 was originated on May 16, 2005, and also was submitted to NHTSA on March 25, 2014 at Bates range GMNHTSA000001742-754. According to the PRTS, on October 29, 2004, a “customer concern that the vehicle ignition will turn off while driving” was reported. GM is continuing to search the database for field reports responsive to Request No. 34. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 35.** On what date(s) did GM open “[f]urther PRTS's ... to re-assess this issue”? On what dates were each of those PRTSs closed?

## RESPONSE

On March 9, 2005, GM opened PRTS No. 0793/2005/US and closed the PRTS on March 9, 2005. GM previously submitted PRTS 0793/2005/US at Bates range GMNHTSA000001000-08. On May 16, 2005 GM opened PRTS No. N182276 to reassess the issue and closed the PRTS on May 24, 2005. GM previously submitted PRTS N182276 at Bates range GMNHTSA000001742-54. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 36.** On what date was the proposal “that GM redesign the key head from a 'slotted' to a 'hole' configuration” approved?

## RESPONSE

According to PRTS No. 0793/2005/US, previously submitted at Bates range GMNHTSA000001000-08, the Engineering Work Order (“EWO”) reflecting the proposal to redesign the key head from a “slotted” to a “hole” configuration was approved on June 27, 2005. GM is continuing to search for information responsive to Request No. 36. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 37.** On what date was the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” cancelled?

**RESPONSE**

According to the PRTS No. N182276, the work order for the proposal that GM redesign the key head from a slotted to a hole configuration “was cancelled back in March of 2006.” *See* PRTS No. N182276 at Bates range GMNHTSA000001742-54. GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to search for information responsive to Request No. 37. Should ongoing collection, reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 42.** Identify all individuals involved with the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration,” including by identifying those individuals who made the decision to approve and cancel the redesign.

**RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM’s response is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing collection, reviews and the internal



investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 43.** On what date did GM first issue Information Service Bulletin 05-02-35-2007?

**RESPONSE**

GM first issued Information Service Bulletin 05-02-35-007 in December 2005.

**Request No. 44.** Provide a copy of Information Service Bulletin 05-02-35-2007.

**RESPONSE**

The Information Service Bulletin 05-02-35-007 was produced to NHTSA on March 25, 2014 at Bates number: GMNHTSA000000001.

**Request No. 46.** On what date did GM first replace the “previous key ring ... with a smaller, 13 mm design”?

**RESPONSE**

In December 2005, GM issued Information Service Bulletin 05-02-35-007. Among other things, the Service Bulletin stated that “Engineering has come up with an insert for the key ring so that it goes from a ‘slot’ design to a ‘hole’ design. As a result, the key ring cannot move up and down in the slot any longer – it can only rotate on the hole.” The Service Bulletin further stated that, “[i]n addition, the

previous key ring has been replaced with a smaller, 13 mm design. This will result in the keys not hanging as low as in the past.” The Service Bulletin also referenced part number 15842334, which included a “smaller, 13 mm” key ring. Should ongoing collection, reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 47.** Identify all individuals involved with GM’s replacement of the “previous key ring ... with a smaller, 13 mm design.”

#### **RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 49.** Provide a copy of each referenced newspaper article and any other newspaper articles which address “incidents that pre-dated GM’s issuance of Service Bulletin 05-02-35-007” or “GM’s public response to inquiries about those incidents.”

RESPONSE

A copy of the newspaper articles referenced in the February 24, 2014 and March 11, 2014 chronologies was submitted to NHTSA at Bates range GMNHTSA000197578-581.

**Request No. 52.** Provide a copy of the October 2006 updated version of the Service Bulletin.

RESPONSE

A copy of the October 2006 updated version of the Information Service Bulletin was submitted to NHTSA at Bates number GMNHTSA000000002.

**Request No. 60.** Identify each individual (including individuals working for or on behalf of GM as well as individuals working for or on behalf of Delphi Mechatronics) who was informed of the changes to the ignition switch approved on April 26, 2006, and describe what each person's responsibility, role, or other involvement was in relation to the issue.

RESPONSE

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 61.** Provide a copy of the “document approving changes to the ignition switch” signed by the GM design engineer.

**RESPONSE**

On March 25, 2014, GM submitted to NHTSA a copy of a document titled, “General Motors Commodity Validation Sign-Off.” The document bears the name and what appears to be the signature of a GM engineer, dated April 26, 2006. *See* Bates range GMNHTSA000002896-898.

**Request No. 66.** Identify each individual involved in the March 29, 2007 meeting between a “group of GM employees ... [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”

**RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 67.** Provide all documents related to the March 29, 2007 meeting between a “group of GM employees ... [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”

## RESPONSE

On March 25, 2014, GM submitted the following: (1) an e-mail message dated March 27, 2007, sent by Doug Wachtel; and (2) an attachment to that e-mail message that bears the title “AGENDA NHTSA 03-29-07.pdf and the caption “NHTSA/GM Quarterly Review – March 29, 2007 – Washington, DC – AGENDA.” These documents appear at Bates range GMNHTSA000002849-850.

Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 68.** Identify the “GM investigating engineer [ ] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy,” and any other individuals involved with this work.

## RESPONSE

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 69.** Provide all documents related to the work performed by the “GM investigating engineer [ ] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy.”

**RESPONSE**

Today, under separate cover, GM submits the investigative file of the Field Performance Assessment Engineer assigned in August 2011 to move forward with an FPE investigation of a group of crashes in which airbags in 2005-07 model year Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts. *See* Bates range GMNHTSA000246684-48069. This investigative file contains some documents related to the work performed by the GM investigating engineer tasked in 2007 with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy.

Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 70.** On what date did GM open the referenced February 2009 PRTS? On what date did GM close the referenced PRTS inquiry?

## RESPONSE

PRTS No. 1078137 was originated on February 4, 2009, and was submitted to NHTSA on March 25, 2014, at Bates range GMNHTSA000001028-1039. This PRTS was closed on December 7, 2009.

**Request No. 73.** Provide all documents related to the key change implemented following the February 2009 PRTS, and identify all individuals involved with the key change.

## RESPONSE

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews, collection and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 75.** Identify the GM engineers who participated in the meeting with Continental on or about May 15, 2009.

## RESPONSE

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM's response to this request is based on information collected, reviewed and

analyzed by GM at the time of this submission. Should ongoing collection, reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 76.** Provide all documents regarding the meeting on or about May 15, 2009 between GM and Continental.

### RESPONSE

As discussed by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module (“SDM”) data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy.

On March 25, 2014, GM submitted to NHTSA copies of the Continental reports relating to both the August 2007 and May 2009 meetings, which are Bates stamped GMNHTSA000002824-848. Additionally, on March 27, 2014, GM submitted two NISM files with respect to nondeployment incidents that were discussed at the August 2007 and May 2009 meetings, which are Bates stamped GMNHTSA000200735-200954 and GMNHTSA000209695-210289. GM submits today, under separate cover, additional documents identified through targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda,



or summaries from the August 2007 and May 2009 meetings, which are included in Bates range GMNHTSA000248070-253371 and GMNHTSA000258205-263553.

GM's investigation and searches for documents are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 78.** Did GM perform any work in 2010 to investigate crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.

#### **RESPONSE**

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 80.** Identify each individual involved with the Field Performance Evaluation "investigation of a group of crashes in which airbags in

2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts.”

### RESPONSE

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 81.** Provide all documents related to GM's Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts,” including all documents related to the reasons that GM initiated this investigation.

### RESPONSE

GM has submitted documents related to GM's Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts,” including documents related to the reasons that GM initiated this investigation. These documents include: 1) EFADC PowerPoint presentations, which were submitted to NHTSA at Bates range GMNHTSA000218132-36; 2) an FPERC

PowerPoint presentation, which was produced at Bates range GMNHTSA000002735-2822; 3) certain documents produced in the *Melton* litigation, including the plaintiff's expert report and the transcript of the deposition of the Field Performance Assessment Engineer assigned in August 2011, which were produced at Bates range GMNHTSA000002904-0197570 and GMNHTSA000229033-230628; 4) a PowerPoint presentation prepared by an outside engineer retained by GM in 2013, which was produced at Bates range GMNHTSA000002853-877; 5) the "Red X" and "Design For Six Sigma" documents referenced in the chronologies submitted to NHTSA on February 24, 2014 and March 11, 2014, which were produced at Bates range GMNHTSA000002688-2734; and 6) the file maintained by the GM investigating engineer who in 2007 was "tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy, in order to try to identify common characteristics of these crashes, some of which GM submits today, under separate cover, at Bates range GMNHTSA000246684-48069. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 82.** What steps did those involved in GM's Field Performance Evaluation investigation take to "identify design changes to the ignition switch"? To the extent the answer to this request involves discussions with GM employees or

employees of GM's supplier, identify the individuals involved in those discussions and identify the date(s) and substance of those discussions.

### RESPONSE

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 83.** Provide all documents related to the steps taken by those involved in GM's Field Performance Evaluation investigation to "identify design changes to the ignition switch."

### RESPONSE

GM has previously submitted documents regarding the steps taken by those involved in GM's Field Performance Evaluation investigation to "identify design changes to the ignition switch." These documents include: 1) a PowerPoint presentation prepared by an outside engineer retained by GM in 2013, which was produced at Bates range GMNHTSA000002853-877; 2) "Red X" and "Design For Six Sigma" documents referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014, which were produced at Bates range GMNHTSA000002688-2734; and 3) the investigative file maintained by the Field

Performance Assessment Engineer assigned in August 2001, which were produced at Bates range GMNHTSA000246684-48069. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 85.** Identify each individual involved with a study using the "Red X" problem-solving methodology to "better understand[] the differences in observed torque performance."

#### **RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 86.** What were the results of the "Red X" study?

#### **RESPONSE**

A PowerPoint presentation prepared by the Red X investigator, previously submitted to NHTSA at Bates range GMNHTSA000002688-692, discusses the results of the "Red X" study. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis

and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 87.** Provide all documents related to the "Red X" study, including all documents related to the reasons that GM initiated the study.

#### **RESPONSE**

GM has previously submitted the "Red X" study to NHTSA at Bates range GMNHTSA000002688-692. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 89.** Identify each individual involved with a study using the "Design for Six Sigma" problem-solving methodology to better understand[] the differences in observed torque performance."

#### **RESPONSE**

On March 25, 2014, GM submitted a response to this request in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 90.** What were the results of the “Design for Six Sigma” study?

**RESPONSE**

A PowerPoint presentation, previously produced to NHTSA at Bates range GMNHTSA000002693-703, discusses the results of the “Design for Six Sigma” study. GM’s investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 91.** Provide all documents related to the "Design for Six Sigma" study, including all documents related to the reasons that GM initiated the study.

**RESPONSE**

GM has previously submitted “Design for Six Sigma” study to NHTSA at Bates range GMNHTSA000002693-703. GM’s investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 94.** On what date did GM retain "outside engineering resources to conduct a comprehensive ignition switch survey and assessment"? Identify the "outside engineering resources" GM retained.

**RESPONSE**

GM retained outside engineering resources to conduct a comprehensive ignition switch survey and assessment in the spring of 2013. One of the outside engineers who worked on this matter was Subbaiah V. Malladi, the Principal Engineer and Chief Technical Officer of Exponent, an engineering and scientific consulting firm. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 95.** Provide all documents related to the "comprehensive ignition switch survey and assessment" performed by outside engineering resources.

**RESPONSE**

One of the documents that relates to the "comprehensive ignition switch survey and assessment" performed by outside engineering resources was a PowerPoint presentation prepared by Subbaiah V. Malladi, the Principal Engineer and Chief Technical Officer of Exponent. This document was previously submitted



to NHTSA at Bates range GMNHTSA000002853-877. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 96.** Describe all communications GM had with its supplier regarding changes to the ignition switch in vehicles subject to the recalls, identify all individuals involved in those communications (whether at GM or its supplier), and provide all related documents.

#### **RESPONSE**

On March 25, 2014, GM submitted documents related to an October 29, 2013 e-mail exchange between GM and its supplier. These documents were previously produced at Bates range GMNHTSA000002881-2903. GM also submitted a partial response to this request on March 25, 2014 in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). Today, under separate cover, GM submits additional documents related to changes to the ignition switch in vehicles subject to the recalls, which are at Bates range GMNHTSA000257777-258204. GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 97.** Provide all documents GM received on October 29, 2013 from its supplier "showing that changes had in fact been made to the detent plunger and spring late in the 2006 calendar year."

**RESPONSE**

On March 25, 2014, GM submitted documents related to an October 29, 2013 e-mail exchange between the Field Performance Assessment Engineer assigned in 2011 and the ignition switch supplier. These documents were previously produced at Bates range GMNHTSA000002881-2903. GM also submitted a partial response to this request on March 25, 2014, in an attachment to a letter submitted to NHTSA (a copy is attached to this submission). GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. Should ongoing reviews and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 99.** On what date did the investigating engineers involved in GM's Field Performance Evaluation investigation present their findings and proposed solutions to the FPERC?

**RESPONSE**

The FPERC convened and discussed the results of the FPE investigation on December 4, 2013. Should ongoing collection, reviews, analysis and the internal

investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 100.** What findings and proposed solutions did the investigating engineers involved in GM's Field Performance Evaluation investigation present to the FPERC? Identify all individuals involved and provide all related documents.

### **RESPONSE**

The findings and proposed solutions of the FPE investigation were discussed in a PowerPoint presentation that was previously submitted to NHTSA at Bates range GMNHTSA000002735-2822. In addition, on March 25, 2014, GM submitted a list of individuals who were involved in the presentation to the FPERC.

GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 102.** On what date did the FPERC present recommendations to the Executive Field Action Decision Committee? Identify all individuals involved and provide all related documents.

## RESPONSE

The FPERC presented recommendations to the EFADC on December 17, 2013. On March 25, 2014, GM submitted a list of individuals who were involved in FPERC presentation to the EFADC.

GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 103.** What recommendations did the FPERC present to the Executive Field Action Decision Committee?

## RESPONSE

The recommendations presented to the EFADC are discussed in a PowerPoint presentation, which was previously submitted to NHTSA at Bates range GMNHTSA000218132-36. GM's investigation and searches for documents responsive to this Request are ongoing. Should ongoing collection, reviews, analysis and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 104.** What "[f]actual questions were raised" at the December 17, 2013 meeting with the Executive Field Action Decision Committee that

[]required further analysis? What "further analysis" took place? Identify the individuals involved in the "further analysis," and provide all related documents.

### RESPONSE

The factual questions raised at the December 17, 2013 meeting with the EFADC are discussed in the PowerPoint presentation that was provided to the EFADC on January 31, 2014. This document was submitted to NHTSA on March 5, 2014. GM's investigation and searches for documents and information responsive to this Request are ongoing. Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Request No. 105.** Describe the findings of the "further analysis" presented at a January 31, 2014 meeting with the Executive Field Action Decision Committee, and provide all related documents.

### RESPONSE

A description of the findings of the "further analysis" presented at the January 31, 2014 meeting with the EFADC are discussed in the PowerPoint presentation that was presented to the EFADC on January 31, 2014. This document was submitted to NHTSA on March 5, 2014 and March 31, 2014. GM's investigation and searches for documents and information responsive to this Request are ongoing. Should ongoing reviews, analysis, and the internal

investigation identify further information and documents that are responsive, GM will supplement its responses to NHTSA.

**Documents Submitted In Response to Requests Not Contained in the  
Special Order**

In cooperation with NHTSA's Timeliness Query, GM has submitted documents in response to requests from NHTSA not set forth in the Special Order.

Submissions of material responsive to these requests include the following:

1. Documents produced in discovery, deposition transcripts and other documents from the *Melton* litigation at Bates range GMNHTSA000002904-197570, GMNHTSA000218055-0218119, GMNHTSA000229033-0230628.
2. List of key terms and acronyms, at Bates range GMNHTSA000002851-52.
3. Documents related to Information Requests issued by NHTSA to GM on July 17, 2010 concerning GM's 2010 Product Safety Recall 10023 related to power steering at Bates range GMNHTSA000230629-246683.

**Identification of Individuals  
Referenced in the NHTSA Special Order Dated March 4, 2014**

Below, General Motors (“GM”) identifies the specific individuals whose identities are requested in the NHTSA Special Order dated March 4, 2014. GM will provide supporting explanations and/or documents on a rolling basis after April 3, 2014. The following responses are based on the information known to GM at the time of submission. As the pending internal investigation continues, GM may learn of other persons whose identities are responsive to requests in the Special Order. As GM learns of such information, we will supplement our responses to NHTSA on a rolling basis.

\* \* \*

18. **For each Problem Resolution Tracking System (“PRTS”) inquiry addressed by GM’s chronology (Attachment B) included in its February 24, 2014 Part 573 Report, identify each of the individuals involved in the PRTS inquiry.**

In this and all following tables, the identified individuals are or were GM employees unless otherwise noted.

Name	Title
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Alan Storck	Lead Development Engineer, Milford Proving Ground
Nancy Burder	US/GM/GMC
Gary F. Altman	Program Engineering Manager
Ray DeGiorgio	Design Release Engineer
Joseph Joshua	
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mounts
David Trush	Lead GMNA Lockset Engineer
Scott Sherman	Suspension-Steering-Structures & Mounts
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Dennis L. Korinek	US/GM/GMC

<b>Name</b>	<b>Title</b>
Sarah Devries	US/GM/GMC
Doug Parks	Chief Engineer at the time of the 2005 Cobalt vehicle launch
Lori Queen	Former GM Vehicle Line Executive, Small Cars
Walt J. Rokicki	US/GM/GMC
Paul Coliadis	US/GM/GMC
<b>FPR 9731 (Cobalt, initiated March 9, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS 0793/2005/US (Cobalt, initiated March 9, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Jonathan (Jack) L. Weber	
Chris Chase	
Rajiv Mehta	
Tracy Thueme	
Chris J. Berube	
<b>FPR 10682 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures- Body Component-Latching Systems
David B. Kepczynski	Body Hardware Components, Door Hardware



<b>Name</b>	<b>Title</b>
Joseph Joshua	
Ralph P. Madison	
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	US/GM/GMC
Walt J. Rokicki	US/GM/GMC
Paul Coliadis	US/GM/GMC
Al Manzor	Senior Project Engineering Manager for Electrification
<b>PRTS 2327/2006/US (Cobalt, initiated August 1, 2006)</b>	
Eric Walker	
Rob Martin	
David (Dave) Peacy	Vehicle Sales Service & Marketing (VSSM)
<b>PRTS 1078137 (Cobalt, initiated February 4, 2009)</b>	
William Chase	Warranty Engineer
David Trush	Lead GMNA Lockset Engineer
Joe Baaki	
Paul Coliadis	US/GM/GMC
Brad I. Cook	
John Dobish	Global Vehicle Systems and Integration
Jamayca Henderson	Global EWO Implementation Change Management Coordinator
Darren Ford	Global Quality Continuous Improvement
Mark Alty	

Name	Title
Mary Kinney	
Gregory Schone	Global Quality Continuous Improvement
Chuck Kellogg	Program Warranty and VEC Warranty Part Center, Global Product
Yvonne Cummings	
Daniel Wood	Supplier Quality, Spring Hill
Kathy Macko	
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Bill Skelton	Infotainment, Controls, Displays
Sharon Schroeder	GMNA Program Mgmt Tech Center
<b>PRTS 1462/2005/US (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Thomas Russell	Vehicle Sales, Service and Marketing
Shannon Moore	
Edward Laskowski	
Frank Flees	
Cathy Lounsbury	
Craig St. Pierre	Supplier Resident Engineer, Ortech

21. **Did GM perform any work in 2008 relate[d] (sic) to the defect that is the subject of this recall, including by investigating crashes in any way of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.**

Name	Title
Douglas Brown	Legal Staff
Hamed Sadmia	FPA Engineer
Dan Derrick	ESIS Investigator
Lisa Stacey	FPA Engineer
Leland Coblentz	ESIS Investigator
Brian Everest	Senior Consultant Manager, FPA Engineer
Mark Byrd	ESIS Investigator
Ryan Jahr	ESIS Investigator
David Trush	Lead GMNA Lockset Engineer
Kathy Anderson	Technical Fellow, FPA
Jenny Sevigny	Senior Manager, FPA

23. **Did GM perform any Failure Mode and Effects Analysis that relates or may relate to the defect? If yes, state the beginning and end date of each Failure Mode and Effects Analysis, describe the finding(s) and conclusion(s) of each Failure Mode and Effects Analysis, identify each individual involved with each Failure Mode and Effects Analysis, and provide all related documents.**

Review of documents relating to Failure Mode and Effects Analyses is ongoing, and we will supplement our response as relevant information is identified.

24. State each date on which GM's Field Performance Evaluation Review Committee and/or Field Product Evaluation Recommendation Committee ("FPERC") discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Name	Title
<b>December 4, 2013</b>	
Brian Stouffer	Field Performance Assessment Engineer (retired)
Maureen Foley-Gardner	FPE Director
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
John Murawa	Field Performance Assessment Engineer
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Gay Kent	General Director, GMNA Vehicle Safety and Crashworthiness

25. State each date on which GM's Executive Field Action Decision Committee discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

Name	Title
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering

Name	Title
Gerald Johnson	Vice President, N. American Manufacturing
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Maureen Foley-Gardner	FPE Director
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality
John Murawa	Field Performance Assessment Engineer
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Sherry Hickock	Supplier Quality

31. On what date(s) were “GM employees [] able to replicate this phenomenon during test drives”? (sic) State the total number of times “GM employees were able to replicate this phenomenon during test drives,” identify each of the individuals involved in this work, and provide all related documents.

Name	Title
Jonathan (Jack) L. Weber	

42. **Identify all individuals involved with the proposal “that GM redesign the key head from a ‘slotted’ to a “hole’ configuration,” including by identifying those individuals who made the decision to approve and cancel the redesign.**

Name	Title
<b>PRTS N172404 (Cobalt, initiated November 19, 2004)</b>	
Alan Storck	Lead Development Engineer, Milford Proving Ground
Nancy Burder	US/GM/GMC
Gary F. Altman	Program Engineering Manager
Ray DeGiorgio	Design Release Engineer
Blendi Sullaj	Engineer, Suspension-Steering-Structures & Mounts
David Trush	Lead GMNA Lockset Engineer
Scott Sherman	Suspension-Steering-Structures & Mounts
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Dennis L. Korinek	
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures-Body Component-Latching Systems

Name	Title
David B. Kepczynski	Body Hardware Components, Door Hardware
Ralph P. Madison	
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
Al Manzor	Senior Project Engineering Manager for Electrification
Elizabeth Kiihr	Product Investigations

47. **Identify all individuals involved with GM's replacement of the "previous key ring . . . with a smaller, 13 mm design."**

Name	Title
<b>PRTS N182276 (Cobalt, initiated May 16, 2005)</b>	
Steven Oakley	Warranty Administrator, US Operations
Bradford (Brad) I. Cook	
William Chase	Warranty Engineer
Joseph (Joe) Manson	Design Engineer
Craig St. Pierre	Supplier Resident Engineer, Ortech
Joseph Fannon	Engineering-Vehicle Systems-Structures and Closures-Body Component-Latching Systems
David B. Kepczynski	Body Hardware Components, Door Hardware
Ralph P. Madison	

Name	Title
David Trush	Lead GMNA Lockset Engineer
Khris Lee	
Kevin G. Gannon	Chassis and Powertrain Suspension-Steering-Structures & Mounts
Sarah Devries	
Walt J. Rokicki	
Paul Coliadis	
Al Manzor	Senior Project Engineering Manager for Electrification
Elizabeth Kiihr	Product Investigations

**56. Identify all individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.**

Review of documents relating to this issue is ongoing, and we will supplement our response as relevant information is identified.

**60. Identify each individual (including individuals working for or on behalf of GM as well as individuals working for or on behalf of Delphi Mechatronics) who was informed of the changes to the ignition switch approved on April 26, 2006, and describe what each person's responsibility, role or other involvement was in relation to the issue.**

Name	Title
Ray DeGiorgio	Design Release Engineer
Eduardo Rodriguez	Delphi



**66. Identify each individual involved in the March 29, 2007 meeting between a “group of GM employees . . . [and] NHTSA representatives in Washington, D.C. to discuss occupant restraint systems.”**

Enclosed with this response are copies of: (1) an e-mail message dated March 27, 2007, sent by Doug Wachtel; and (2) an attachment to that e-mail message that bears the title “AGENDA NHTSA 03-29-07.pdf” and the caption “NHTSA/GM Quarterly Review - March 29, 2007 - Washington, DC – AGENDA.” See documents bearing Bates labels GMNHTSA000002849 - GMNHTSA000002850.

*Attachment titled “AGENDA NHTSA 03-29-07.pdf.”* The attachment titled “AGENDA NHTSA 03-29-07.pdf” lists the following individuals as “presenters” during the meeting of March 29, 2007:

Name	Title
Matt [sic] Jerinsky [the correct spelling is “Jerinsky”]	Crashworthiness and Safety
Brian Everest	Senior Consultant Manager, FPA Engineer
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Brian Stouffer	Field Performance Assessment Engineer (retired)

According to the attachment, these presentations appear to have been conducted using “WebEx,” an online remote meeting service, so some of the presenters referenced above may not have been physically present in Washington D.C. during the meeting of March 29, 2007. Other information learned by GM through its internal investigation indicates that the following individuals may have been physically present for the meeting of March 29, 2007, in Washington D.C.:

<b>Name</b>	<b>Title</b>
Matt Jerinsky	Crashworthiness and Safety
Brian Everest	Senior Consultant Manager, FPA Engineer
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Keith Schultz	Senior Manager, Vehicle Technology and Safety Policy
Stephen Gehring	Director, Global Public Policy - Global Infotainment and OnStar Public Policy

*E-mail message dated March 27, 2007.* The e-mail message sent by Doug Wachtel bears the date of March 27, 2007, and the time of "20:20:15:000." This e-mail message appears to forward an e-mail message sent by Elizabeth A. Bardowell on March 27, 2007, at 3:23 p.m. Ms. Bardowell's e-mail reflects that it was sent to the following recipients:

<b>Name</b>	<b>Title</b>
Gary M. Dowd	
Jay H. Sim	
Mark Deacon	
Rick A. Czajkowski	
Philip R. Horton	
Richard J. Gratz	
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
John Murawa	Field Performance Assessment Engineer
Keith D. Wilson	
Sue Myers-Babiasz	

Mr. Wachtel's e-mail, also dated March 27, 2007, in which he appears to forward Ms. Bardowell's e-mail, reflects that it was sent to the following recipients:

Name	Title
Christopher Janik	Field Performance Assessment Engineer
John Murawa	Field Performance Assessment Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)
Mickey Sabol	Field Performance Assessment Engineer
Harry A. Wiedenmeyer	Field Performance Assessment Engineer
Eric A. Buddrius	Field Performance Assessment Engineer

This response is based on the information known as of the date of this submission. Should the pending internal investigation produce additional information regarding the identity of individuals who were involved in the March 26, 2007 meeting, General Motors will supplement its response.

68. **Identify the “GM investigating engineer [] tasked with tracking crashes in which Cobalts were involved in frontal impacts and the airbags did not deploy,” and any other individuals involved with this work.**

Name	Title
John Sprague	Field Performance Assessment Engineer
Brian Everest	Senior Consultant Manager, FPA Engineer

73. Provide all documents related to the key change implemented following the February 2009 PRTS, and identify all individuals involved with the key change.

Name	Title
<b>PRTS 1078137 (Cobalt, initiated February 4, 2009)</b>	
William Chase	Warranty Engineer
David Trush	Lead GMNA Lockset Engineer
Joe Baaki	
Paul Coliadis	
Brad I. Cook	
John Dobish	Global Vehicle Systems and Integration
Jamayca Henderson	Global EWO Implementation, Change Management Coordinator
Darren Ford	Global Quality Continuous Improvement
Mark Alty	
Mary Kinney	
Gregory Schone	Global Quality Continuous Improvement
Chuck Kellogg	Program Warranty and VEC Warranty Part Center GM, Global Product
Yvonne Cummings	
Daniel Wood	Supplier Quality, Spring Hill
Kathy Macko	
William D. Killen	Warranty & Vehicle Assembly Cross Platform, Saturn, Spring Hill
Bill Skelton	Infotainment, Controls, Displays
Sharon Schroeder	GMNA Program Mgmt Tech Center

**75. Identify the GM engineers who participated in the meeting with Continental on or about May 15, 2009.**

As discussed by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module (“SDM”) data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy. GM is submitting the Continental reports relating to both the August 2007 and May 2009 meetings.

Name	Title
Brian Everest	Senior Consultant Manager, FPA Engineer
John Sprague	Field Performance Assessment Engineer
James Churchwell	Safety Integration Sensing Performance
Lisa Stacey	

**78. Did GM perform any work in 2010 to investigate crashes in any of the recalled vehicles in which the airbags did not deploy? If so, describe the nature of the work, identify all individuals involved, and provide all related documents.**

Name	Title
Jaclyn Palmer	Legal Staff
Mark Byrd	ESIS Investigator
Mike Wedzinski	FPE Engineer

80. **Identify each individual involved with the Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts.”**

Name	Title
Brian Stouffer	Field Performance Assessment Engineer (retired)
John Sprague	Field Performance Assessment Engineer
Doug Wachtel	Senior Manager, Internal Product Investigations (retired)
Bill Kemp	Legal Staff
Jennifer Sevigny	Legal Staff
Carmen Benavides	Director, Product Investigations
Terry Woychowski	Vice President, Program Management (retired)
James Federico	Chief Engineer, Subcompacts
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Eric Buddrius	Product Investigations
Dan Davis	Red X Engineer
Jeff Konchen	Ignition Cylinder Lead
Terry Connolly	
John Zuzelski	Global Steering System GSSLT
Jaclyn Palmer	Legal Staff
Ray DeGiorgio	Design Release Engineer
John Murawa	Field Performance Assessment Engineer
Maureen Foley-Gardner	FPE Director

Name	Title
John Dolan	Engineer and Head of Global Subsystem Leader Team on Passive Safety Control
Vipul Modi	Global Lead Engineer – Responsible for Airbag Electronics
Jim Churchwell	Sensing Performance Electrical Engineer
Brian Thompson	Group Manager, Electrical Engineering

82. What steps did those involved in GM’s Field Performance Evaluation investigation take to “identify design changes to the ignition switch?” To the extent the answer to this request involves discussions with GM employees or employees of GM’s supplier, identify the individuals involved in those discussions and identify the date(s) and substance of those discussions.

Name	Title
Ray DeGiorgio	Design Release Engineer

85. Identify each individual involved with a study using the “Red X” problem-solving methodology to “better understand[] the differences in observed torque performance.”

Name	Title
Dan Davis	Red X Engineer
Bill Merrill	Red X Engineer
Brian Stouffer	Field Performance Assessment Engineer (retired)

89. **Identify each individual involved with a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance.”**

Name	Title
Doug Wachtel	Senior Manager of Product Investigations (retired)
Brian Stouffer	Field Performance Assessment Engineer (retired)
Jeff Konchen	Ignition Cylinder Lead
Terry Connolly	
John Zuzelski	Global Steering System GSSLT

94. **On what date did GM retain “outside engineering resources to conduct a comprehensive ignition switch survey and assessment?” Identify the “outside engineering resources” GM retained.**

Name	Title
Subbaiah V. Malladi	Principal Engineer, Exponent

96. **Describe all communications GM had with its supplier regarding changes to the ignition switch in vehicles subject to recalls, identify all individuals involved in those communications (whether at GM or its supplier), and provide all related documents.**

Name	Title
Ray DeGiorgio	Design Release Engineer
Eduardo Rodriguez	Delphi



100. What findings and proposed solutions did the investigating engineers involved in GM's Field Performance Evaluation investigation present to the FPERC? Identify all individuals involved and provide all related documents.

Name	Title
Brian Stouffer	Field Performance Assessment Engineer (retired)
Maureen Foley-Gardner	FPE Director
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Gay Kent	General Director, Vehicle Safety and Crashworthiness

102. On what date did the FPERC present recommendations to the Executive Field Action Decision Committee? Identify all individuals involved and provide all related documents.

Name	Title
Alicia Boler-Davis	Senior Vice President, Global Quality & Customer Experience
John Calabrese	Vice President, Global Vehicle Engineering
Gerald Johnson	Vice President, N. American Manufacturing
Steven Kiefer	Vice President, Global Powertrain
Gay Kent	General Director, Vehicle Safety and Crashworthiness
Maureen Foley-Gardner	FPE Director

Name	Title
John Murawa	Field Performance Assessment Engineer
Carmen Benavides	Director, Product Investigations
Mark Johnson	Senior Manager, Internal Investigations
Bill Kemp	Legal Staff
Sherry Hickock	Supplier Quality
Jeffrey Wrona	Executive Director, Vehicle Engineering and Powertrain Quality

102. What “[f]actual questions were raised” at the December 17, 2013 meeting with the Executive Field Action Decision Committee “that required further analysis?” What “further analysis” took place? Identify the individuals involved in the “further analysis,” and provide all related documents.

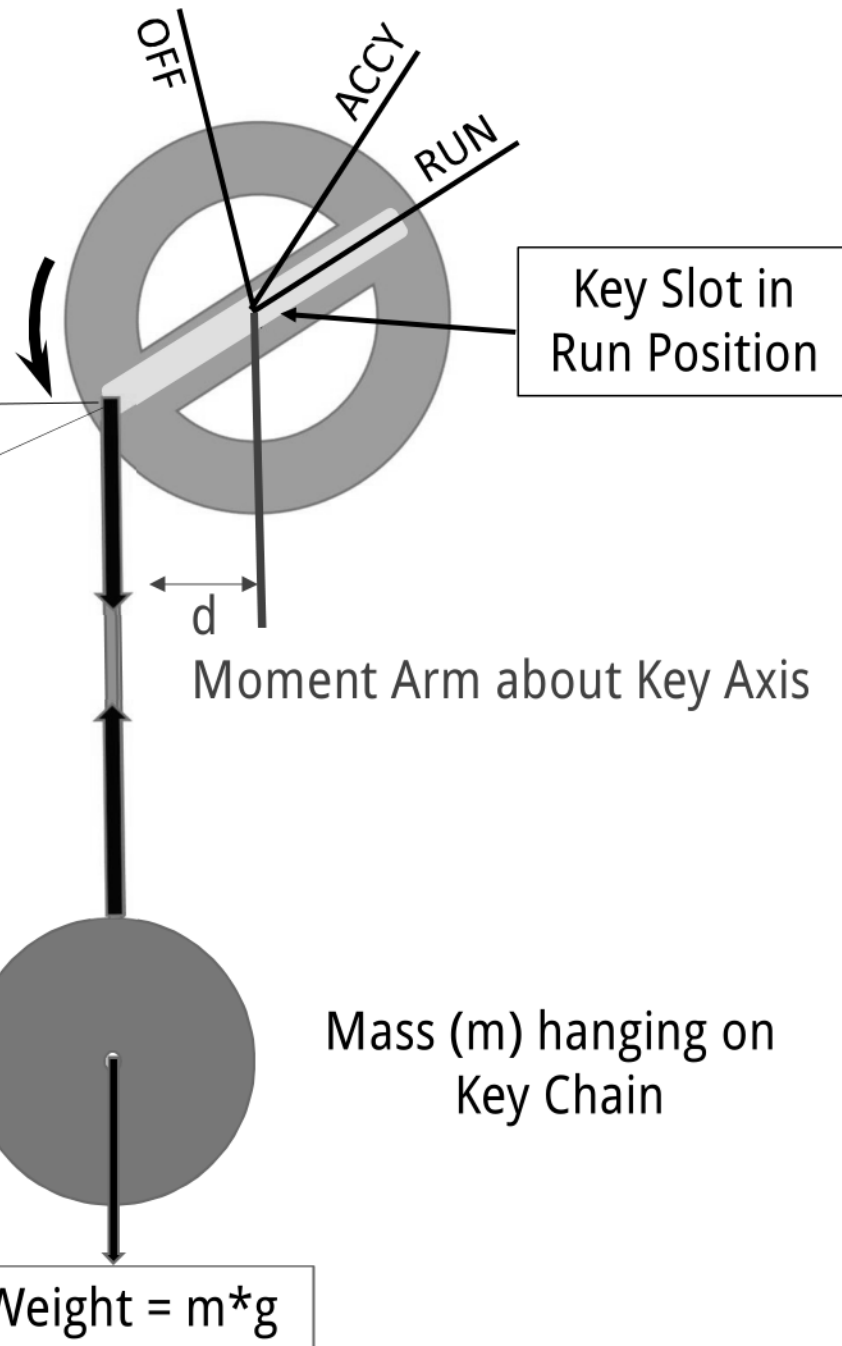
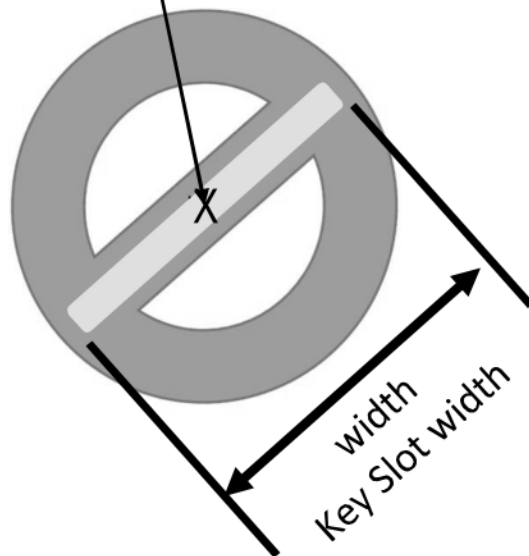
Name	Title
John Murawa	Field Performance Assessment Engineer

## STATIC RUN POSITION

Torque on Key Cylinder,  $\tau = \text{Weight} * d$

$$\tau = m * g * \frac{\text{width}}{2} * \cos \theta$$

Axis of Key Cylinder



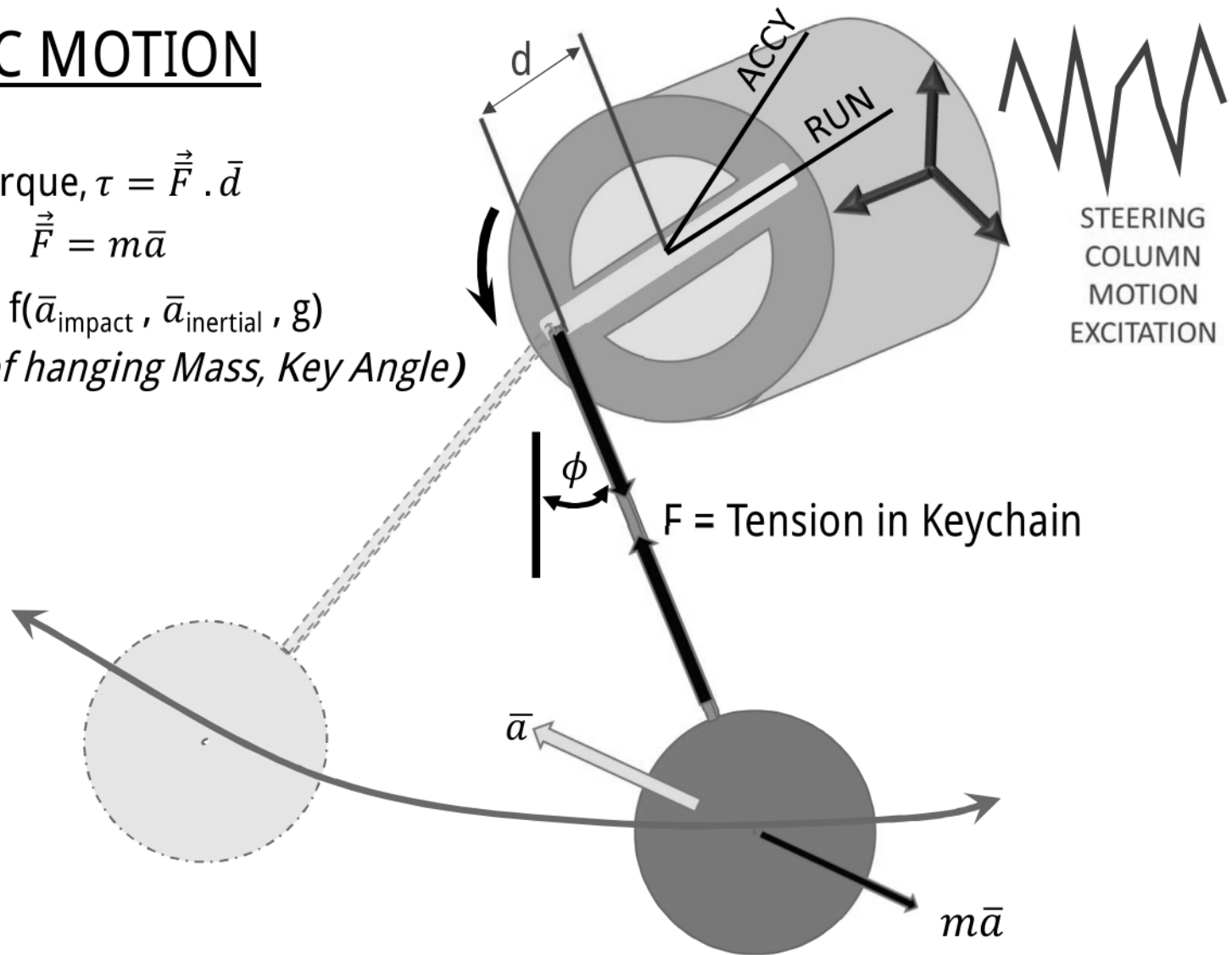
# DYNAMIC MOTION

$$\text{Torque, } \tau = \vec{F} \cdot \vec{d}$$

$$\vec{F} = m\vec{a}$$

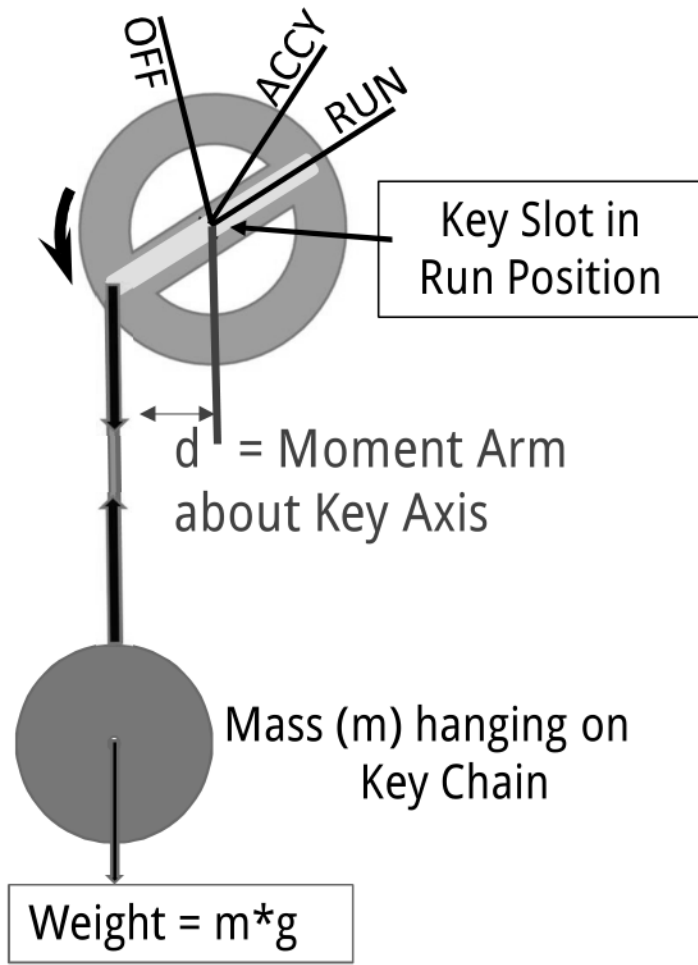
$$\vec{a}(t) = f(\vec{a}_{\text{impact}}, \vec{a}_{\text{inertial}}, g)$$

$$\vec{d} = f(\text{Position of hanging Mass, Key Angle})$$



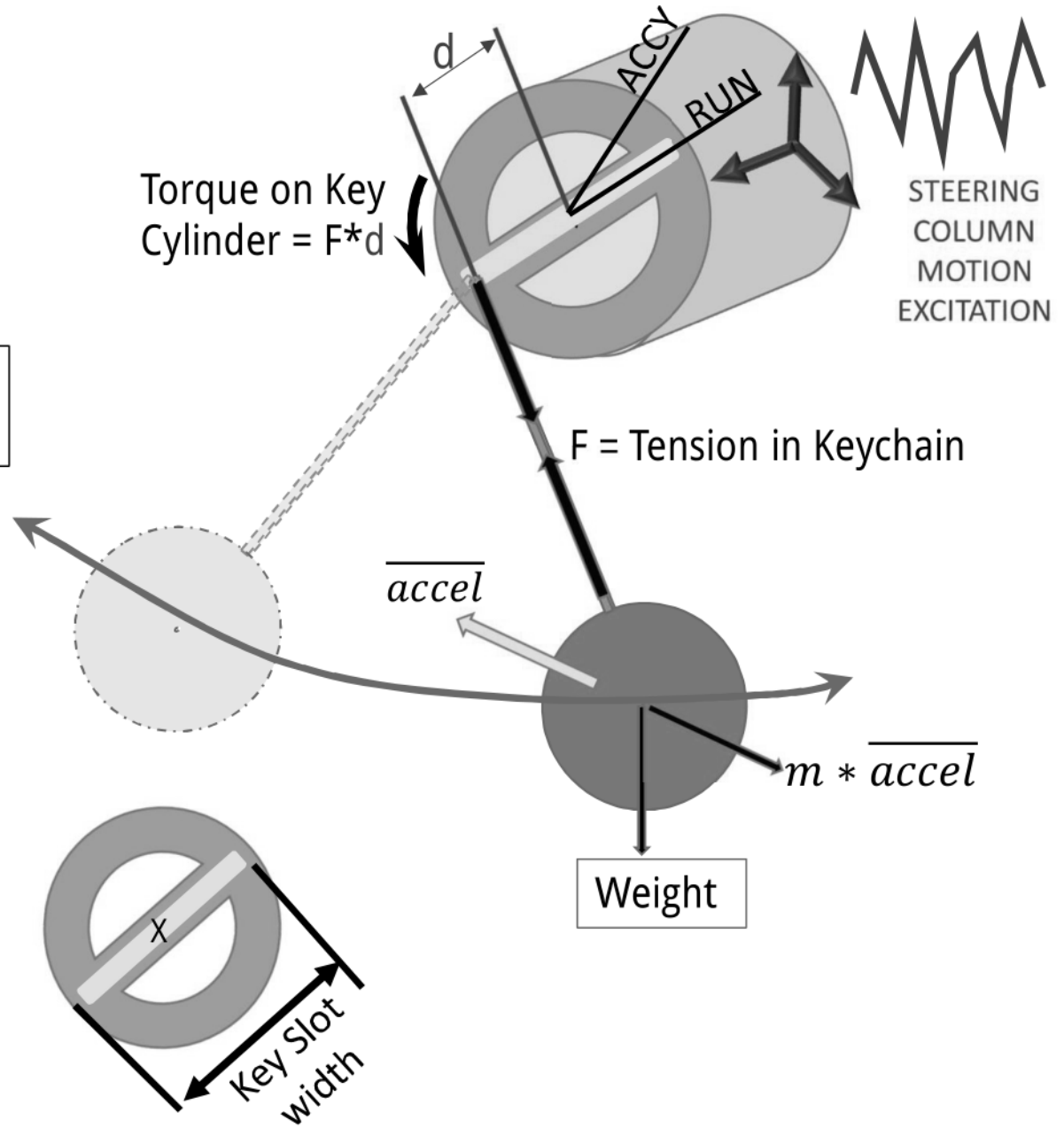
## STATIC RUN POSITION

Torque on Key  
Cylinder = Weight\*d



## DYNAMIC MOTION

Torque on Key  
Cylinder =  $F * d$



**GM RESPONSE TO REQUEST**

<b>Model Year</b>	<b>Make</b>	<b>Model</b>
2003	Saturn	Ion
2004	Saturn	Ion
2005	Saturn	Ion
2005	Chevrolet	Cobalt
2006	Saturn	Ion
2006	Chevrolet	Cobalt
2006	Chevrolet	HHR
2006	Pontiac	Solstice
2007	Saturn	Ion
2007	Chevrolet	Cobalt
2007	Chevrolet	HHR
2007	Saturn	Sky
2007	Pontiac	G5
2007	Pontiac	Solstice

\* The response to Request 4(c) includes only NISMs, incidents without include lawsuits.

**NUMBER FOUR**

<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
0	0
4	4
1	2
13	2
3	0
8	0
1	0
0	0
3	0
8	0
2	0
0	0
3	0
0	0

it claims, and customer complaint files. It does not



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 7, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") ninth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents which are responsive to the Special Order:

- **Documents related to NHTSA, Continental and Delphi**
  - Bates range: GMNHTSA000263554 - GMNHTSA000271821
  - Today's production includes additional communications between GM and NHTSA, communications and documents related to meetings between GM engineers and Continental representatives in 2007 and 2009, and documents related to Delphi and the ignition switch change. GM is continuing to search electronically stored information and will provide further responsive documents as they are identified.



O. Kevin Vincent, Esq.  
April 7, 2014  
Page 2

Additionally, as referenced in my March 20<sup>th</sup> email to you, please find attached a partial organizational chart that includes certain leadership functions during 2013 and 2014.

GM's production today is contained on discs bearing the following Bates range: GMNHTSA000263554 - GMNHTSA000271821.

The encryption key for the discs is 4EFA36DA2B5BE539090CE.

GM's investigation and review of documents are ongoing and we will produce additional documents responsive to the Special Order this week. Should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Lucy Clark Dougherty". The signature is written in a cursive, flowing style.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated





**UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**  
1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

-----  
**In re:** :  
 :  
TQ14-001 :  
NHTSA Recall No. 14V-047 :  
 :  
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**GENERAL MOTORS LLC’S TENTH INTERIM RESPONSE TO SPECIAL ORDER**

General Motors LLC (“GM”) hereby submits this Tenth Interim Response to the Special Order issued by the Secretary of Transportation on March 4, 2014.

At a meeting with NHTSA representatives on March 12, 2014, GM emphasized its commitment to cooperating fully with NHTSA’s Timeliness Query. At this meeting, and during a subsequent telephone call on March 19, 2014, NHTSA agreed to production priorities and a rolling production timetable as memorialized, without objection from NHTSA, in an e-mail to NHTSA representatives dated March 20, 2014. GM has focused on these priority areas, and between March 25, 2014 and April 7, 2014, GM has made nine document productions comprising approximately 20,900 documents (totaling over 271,000 pages).

GM is working diligently to complete its response to the Special Order and will supplement this filing on a rolling basis.

Only those sections of the requests to which a response is provided will be quoted.

### **REQUESTS**

**Request No. 20.** Provide all documents related to the reasons that GM opened and closed the PRTS inquiries referenced by GM's chronology (Attachment B) included in its February 24, 2014 Part 573 Report.

### **RESPONSE**

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the Problem Resolution Tracking System ("PRTS") reports and Field Performance Reports ("FPR") that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. These reports contain descriptions of the reasons for their opening and closing, as well as the dates of these events.

Certain reports contain e-mail communications discussing the reasons for the opening and closing of the reports. For example, *see* PRTS #0793/2005/US, originated March 9, 2005, which includes an e-mail dated March 9, 2005, regarding an instance in which a GM employee observed an ignition shut-off while driving a Cobalt. *See also* PRTS #N182276, originated May 16, 2005, which includes excerpts

of e-mail communications between September 6, 2006, and September 7, 2006, regarding the closing of the PRTS.

Also, certain reports include Excel spreadsheets containing warranty data and customer assistance center records that relate to the reasons for the opening of the reports. For example, *see* PRTS #2568/2003/US, originated August 28, 2003, which includes certain warranty data and technical assistance center records relating to the reasons for opening the PRTS. *See also* FPR #3101/2003/US, originated October 9, 2003, which includes certain warranty data relating to the reasons for opening the FPR.

Also, certain reports include statements reflecting analyses of warranty data after a solution was implemented, that address the effectiveness of the solution and the reasons for closing the PRTS. For example, *see* PRTS #1078137, originated February 4, 2009, which stated that the “solution” of “chang[ing] key opening from a slot to a hole” was “effective,” in that “[w]arranty for LOR went down significantly as shown in GART [Global Analysis and Reporting Tool].” *See also* PRTS N151929, originated January 13, 2004, which contains statements dated April 2, 2004, relating to the assessment of an implemented solution and the closing of the PRTS.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s

response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 23.** Did GM perform any Failure Mode and Effects Analysis that relates or may relate to the defect? If yes, state the beginning and end date of each Failure Mode and Effects Analysis, describe the finding(s) and conclusion(s) of each Failure Mode and Effects Analysis, identify each individual involved with each Failure Mode and Effects Analysis, and provide all related documents.

#### **RESPONSE**

On April 3, 2014, GM submitted to NHTSA certain documents it had received from Delphi that were related to the ignition switch installed in vehicles subject to the recall announced on February 7, 2014. Included in these documents is Delphi's Potential Failure Mode and Effects Analysis (Delphi's Design FMEA) report on the Delta ignition switch for the 2004 model year. See Bates range GMNHTSA000257943-950.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's

response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 25.** State each date on which GM's Executive Field Action Decision Committee discussed issues that relate or may relate to the defect that is the subject of this recall. Describe in detail the substance of the discussions, identify the individuals involved in the discussions, and provide all related documents.

### RESPONSE

In its Eighth Interim Response to the Special Order submitted on April 3, 2014, GM inadvertently referred to the Executive Field Action Decision Committee ("EFADC") as the Field Product Evaluation Recommendation Committee in its response to Request No. 25. We would like to correct that inadvertent mistake by submitting that GM's EFADC discussed issues that relate or may relate to the defect that is the subject of this recall on December 17, 2013, January 31, 2014, and February 24, 2014.

On March 25, 2014, GM submitted a partial response to this request in an attachment to a letter submitted to NHTSA (a copy was attached to GM's Eighth Interim Response to the Special Order). Also, on March 5, 2014, GM submitted



copies of the briefing materials prepared for the EFADC meetings of December 17, 2013, and January 31, 2014, which relate to the substance of the discussions during these EFADC meetings.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall, including an investigation to determine the substance of the discussions at the EFADC meetings noted above. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 26.** Is GM's remedy for this recall the same "re-designed ignition switch" that "GM believes that [Delphi] began providing ... to GM at some point during the 2007 model year"? If no, describe each difference between that "re-designed ignition switch" and the replacement ignition switch GM intends to use as its remedy.

#### **RESPONSE**

The new ignition switch that Delphi began providing to GM at some point during the 2007 model year and then for the 2008-10 model year Cobalt and G5 is the same ignition switch that is being used for the recall. The parts make-up for the ignition switch being used for the recall, including the spring, plunger, housing,

grease and rotor are the same as were used for the re-designed ignition switch Delphi began providing to GM at some point during the 2007 model year.

The circuit board for the ignition switch being used for the recall is being provided by a different manufacturer because Delphi no longer does business with the supplier that provided the circuit board for the re-designed switch that began being used at some point during the 2007 model year. The design for the circuit board, however, has not changed. While the parts make-up is the same, there has now been a change to the part number for the ignition switch.

The end-of-line testing of the ignition switch by GM has changed. It is more stringent, requiring a verification of every ignition switch to six parameters.

**Request No. 27.** According to a press release regarding this recall that GM submitted to NHTSA, GM North America President Alan Batey said that GM's "process employed to examine this phenomenon was not as robust as it should have been." Describe in detail the ways in which GM's process "was not as robust as it should have been" and GM's plans (if any) to change its process.

### **RESPONSE**

GM has retained outside counsel in order to conduct an internal investigation of the facts relating to the recall announced on February 7, 2014. GM is also conducting its own review of processes in order to understand shortfalls and identify needed improvements to our processes. As discussed during the meeting with

NHTSA representatives on March 12, 2014, achieving a thorough understanding of process shortfalls and determining proper remedial measures is of paramount importance to GM and will require, among other things, careful study and consultation with subject matter experts at NHTSA. As GM's internal reviews progress, GM will supplement its response to this request and seek NHTSA's input on proposed remedial measures.

**Request No. 28.** To the extent not otherwise provided in response to a specific request, provide all documents reviewed in preparation of the responses to this Special Order, or that otherwise support GM's responses to this Special Order.

#### **RESPONSE**

GM and/or its outside counsel have reviewed all documents produced to date to NHTSA in preparation of GM's responses to the Special Order dated March 4, 2014. To date, over 20,900 documents, comprising over 271,000 pages, have been produced to NHTSA in response to the Special Order. GM continues to collect, review and analyze documents and electronically stored information. Should ongoing reviews, analysis, and the internal investigation identify further information and documents that are responsive, GM will supplement its response to NHTSA.

**Request No. 33.** Describe each of the referenced "potential solutions" that GM considered, including the "lead time required, costs, and effectiveness" of each of the solutions. Provide all related documents.

## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990.

Specifically, PRTS #N172404, originated on November 19, 2004, includes discussions of each of the referenced “potential solutions” considered, including the “lead time required, costs, and effectiveness” of each of the solutions. This PRTS report also includes numerous embedded Microsoft Word and PowerPoint documents, which further address these topics.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 38.** Why was the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” approved?

**RESPONSE**

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS #N182276, originated on May 16, 2005, includes discussions of the proposal to redesign the key head from a “slotted” to a “hole” configuration.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 39.** Why was the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” cancelled?

## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS No. N182276, originated on May 16, 2005, includes discussions of the cancellation of the proposal to redesign the key head from a “slotted” to a “hole” configuration, including e-mail communications dated September 6, 2006, and September 7, 2006.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 40.** Provide all documents related to the reasons that the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” was approved.

## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS #N182276, originated on May 16, 2005, includes discussions of the proposal to redesign the key head from a “slotted” to a “hole” configuration.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 41.** Provide all documents related to the reasons that the approval for the proposal “that GM redesign the key head from a ‘slotted’ to a ‘hole’ configuration” was cancelled.

## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS No. N182276, originated on May 16, 2005, includes discussions of the cancellation of the proposal to redesign the key head from a “slotted” to a “hole” configuration, including e-mail communications dated September 6, 2006, and September 7, 2006.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 45.** Provide all documents related to the reasons that GM issued Information Service Bulletin 05-02-35-2007.



## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS No. N182276, originated on May 16, 2005, includes references to a “solution” of “[k]ey ring slot in key changed to hole and use of a 13mm key ring,” both of which are reflected in Service Bulletin 05-02-35-007.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 48.** Provide all documents related to GM’s replacement of the “previous key ring ... with a smaller, 13 mm design.”

## RESPONSE

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the Service Bulletins referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These Service Bulletins, which were submitted in Bates range GMNHTSA000000001-02, reference a part, number 15842334, the contents of which include a 13 mm key ring.

Also, on March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS No. N182276, originated on May 16, 2005, includes references to a “solution” of “[k]ey ring slot in key changed to hole and use of a 13mm key ring,” both of which are reflected in Service Bulletin 05-02-35-007.

On March 27, 2014, GM submitted documents produced during the course of the *Melton* litigation. These documents include photographs of the aforementioned part number 15842334, including the 13 mm key ring. These documents were submitted at Bates range GMNHTSA000143380-81.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts

relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 50.** Provide all documents related to the statement that "GM concluded in December 2005 that the Service Bulletin and field service campaign was the appropriate response to the reported incidents."

#### **RESPONSE**

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted copies of the Service Bulletins referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These Service Bulletins, which were submitted in Bates range GMNHTSA000000001-02, reference a part, number 15842334, the contents of which include a 13 mm key ring.

On March 27, 2014, GM submitted documents produced during the course of the *Melton* litigation. These documents include photographs of the aforementioned part number 15842334, including the 13 mm key ring. These documents were submitted at Bates range GMNHTSA000143380-81.

Also, on March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. Specifically, PRTS No. N182276, originated on May 16, 2005, includes references to a “solution” of “[k]ey ring slot in key changed to hole and use of a 13mm key ring,” both of which are reflected in Service Bulletin 05-02-35-007.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as nine years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 51.** Why did GM “update[ ] the Service Bulletin in October 2006 to include additional vehicles and model years”?

### **RESPONSE**

GM updated the Service Bulletin in October 2006 to include additional vehicles and model years in order to expand coverage of the Service Bulletin to

include newer vehicles and model years equipped with the same ignition switch as the vehicles referenced in the original Service Bulletin issued in December 2005.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 53.** Provide all documents that “contain references to a second update of the Service Bulletin in July 2011.”

### RESPONSE

The chronology submitted to NHTSA on February 24, 2014, stated that "GM's records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. However, upon investigation, GM believes that the Service Bulletin was not updated in July 2011."

On March 27, 2014, GM submitted a document that is responsive to this request. This document has the Bates label GMNHTSA000137415-452. Save for the date of issue, this document is identical to the version of the Service Bulletin

issued on October 25, 2006, which GM produced on March 25, 2014, at Bates range GMNHTSA000000001-02.

Also, on March 27, 2014, GM submitted another document that is responsive to this request, within the group of documents that were produced during the *Melton* litigation. This document has the Bates label GMNHTSA000020658-59. This document also has the same Service Bulletin number and relates to the same vehicle models and model years as the Service Bulletin issued on October 25, 2006, which GM produced on March 25, 2014, at Bates range GMNHTSA000000001-02.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 54.** Why did GM consider updating the Service Bulletin in July 2011?

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the

subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 55.** Why did GM decide not to update the Service Bulletin in July 2011?

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 56.** Identify all individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall, including an investigation to identify the individuals involved with the consideration of whether or not to update the Service Bulletin in July 2011. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts,

GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 57.** For the 474 customers provided key inserts, according to GM's warranty records, provide a table listing the number of key inserts provided by make, model, and date provided.

#### **RESPONSE**

GM has previously submitted a document responsive to this request. On March 5, 2014, GM submitted a copy of the briefing materials prepared for the EFADC meeting of February 24, 2014. The table on page 2 of that PowerPoint presentation includes the number of key inserts provided by make, model, and model year. To the extent possible, GM will supplement this response with the dates on which the aforementioned key inserts were provided.

**Request No. 58.** Describe the changes to the ignition switch approved by a GM design engineer on April 26, 2006.

#### **RESPONSE**

GM has previously submitted documents responsive to this request. On March 5, 2014, GM submitted a copy of the briefing materials prepared for the EFADC meeting of January 31, 2014, which includes a copy of the document approving changes to the ignition switch, signed April 26, 2006.



On March 25, 2014, GM submitted a copy of the document approving changes to the ignition switch, signed April 26, 2006. This document has the Bates label GMNHTSA000002823. This document has the following text: “Note that the during cycling, 1 amp was applied on the Delta Ignition Sw. This validation was submitted with New PCB correct timings adjusts as Customer required, also New detent plunger (Catera spring/Plunger) was implemented to increase torque force in the switch.”

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 59.** Why did a GM design engineer approve changes to the ignition switch on April 26, 2006?

#### **RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is

thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 62.** Describe the role, if any, the GM design engineer who approved changes to the ignition switch on April 26, 2006 had in GM's investigation of airbag nondeployments in any of the recalled vehicles.

### RESPONSE

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 63.** Did GM approve any change to the ignition switch prior to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

### RESPONSE

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 64.** Did GM approve any change to the ignition switch subsequent to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 65.** Provide all documents related to the reasons that the ignition switch was changed, whether pursuant to GM's approval on April 26, 2006 or at any other time.

**RESPONSE**

GM has previously submitted numerous documents responsive to this request.

First, on March 25, 2014, GM submitted a copy of the document approving changes to the ignition switch, signed April 26, 2006. This document bore Bates label GMNHTSA000002823. This document has the following text: "Note that the during cycling, 1 amp was applied on the Delta Ignition Sw. This validation was submitted with New PCB correct timings adjusts as Customer required, also New

detent plunger (Catera spring/Plunger) was implemented to increase torque force in the switch.”

Second, on March 25, 2014, GM submitted documents related to an October 29, 2013, e-mail exchange between the Field Performance Assessment Engineer assigned in August 2011 and the ignition switch supplier. These documents were previously produced at Bates range GMNHTSA000002881-2903.

Third, on March 5, 2014, GM submitted a copy of the briefing materials prepared for the EFADC meeting of January 31, 2014, which includes a copy of the document approving changes to the ignition switch, signed April 26, 2006.

Fourth, on April 3, 2014, GM submitted a group of documents that GM received from Delphi on March 31, 2014. These documents, submitted at Bates range GMNHTSA000257777-58204, included, among other things, e-mail communications between GM engineers and Delphi representatives relating to changes to the ignition switch at issue.

Finally, on March 25, 2014, GM submitted copies of the PRTS reports and FPR that were referenced in the chronologies submitted to NHTSA on February 24, 2014, and March 11, 2014. These PRTS and FPR reports were submitted in Bates range GMNHTSA000000003-01990. FPR No. 1996/2006/US, originated on May, 22, 2006, includes an attached PowerPoint slide that has the supplier’s logo and relates to proposed changes to the ignition switch. This PowerPoint slide has the Bates label GMNHTSA000225777.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses. GM also notes that many of the documents requested may have dates as long as eight years ago, and many of the document requests require individual interviews, not simply the retrieval of electronically stored information.

**Request No. 71.** Did GM implement the key change following the February 2009 PRTS in any model other than the Cobalt? If yes, state each model to which the key change applied (including the model year for which the key change was first implemented). If no, state the reasons that GM did not implement the key change in any model other than the Cobalt.

### **RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 72.** Did the key change implemented following the February 2009 PRTS differ from the key change proposed in 2005? If yes, identify each difference and state whether and how the difference(s) were relevant to preventing accidental ignition shut-off.

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 74.** Why did "several GM engineers me[e]t with representatives of Continental, the supplier of the SDMs used in the Cobalt" on or about May 15, 2009?

**RESPONSE**

As discussed with NHTSA by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module ("SDM") data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy.

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted to NHTSA copies of the Continental reports relating to both the August 2007 and May 2009 meetings, which are Bates stamped GMNHTSA000002824-848. Additionally, on March 27, 2014, GM submitted two not-in-suit matter (“NISM”) files with respect to non-deployment incidents that were discussed at the August 2007 and May 2009 meetings with Continental representatives, which are Bates stamped GMNHTSA000200735-200954 and GMNHTSA000209695-210289.

Further, on April 3, 2014, GM submitted additional documents identified through targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda, or summaries from the August 2007 and May 2009 meetings, which are included in Bates range GMNHTSA000248070-253371 and GMNHTSA000258205-263553.

The documents submitted to date provide some information about why “several GM engineers met with representatives of Continental, the supplier of the SDMs used in the Cobalt” on or about May 15, 2009.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual

accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 77.** Regarding the meeting on or about May 15, 2009 between GM engineers and representatives of Continental in which Continental apparently divulged new (and previously unknown to GM) data from two non-deployment incident SDMs: Provide the crash incident details (crash date, vehicle VIN and MMY details, complaints, law suits, injury/ fatality counts, PARs, field inspection details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental. Discuss in detail the nature and meaning of the data Continental was able to access (and that was apparently inaccessible to GM) from the two SDMs, and how it was used to determine, or otherwise showed that the SDM sensing algorithm had been disabled during the two crash incidents. State the reasons Continental provided for why the airbag sensing algorithm had been disabled during the crash events, and discuss any explanations Continental provided as to why this was not apparent in the data readily available to GM, or to others who use commercially available tools to access such information. Describe the method or means by which Continental was able to access this data, and state whether or not GM currently has the capability to access this same information, and if so, state when GM obtained this capability. Provide copies of any and all documents that were provide by any party present at the meeting, or that were subsequently provided or exchanged as a result of, or in connection with the



meeting, and state the current location and disposition of the two SDMs provided to Continental.

### RESPONSE

As discussed with NHTSA representatives by telephone on March 19, 2014, GM learned, after submitting the chronologies on February 24, 2014, and March 11, 2014, of a second meeting between GM engineers and Continental representatives that took place in or about August 2007. During this meeting, Continental representatives discussed Sensing and Diagnostic Module (“SDM”) data downloaded from a Cobalt vehicle involved in a frontal-impact crash in which the airbags did not deploy.

GM has previously submitted documents responsive to this request. On March 25, 2014, GM submitted to NHTSA copies of the Continental reports relating to both the August 2007 and May 2009 meetings, which are Bates stamped GMNHTSA000002824-848. Additionally, on March 27, 2014, GM submitted two not-in-suit matter (“NISM”) files with respect to the non-deployment incidents that were discussed at the August 2007 and May 2009 meetings with Continental representatives, which are Bates stamped GMNHTSA000200735-200954 and GMNHTSA000209695-210289. These NISM files contain information specified in Request No. 77—specifically, “crash incident details (crash date, vehicle VIN and MMY details, complaints, law suits, injury/fatality counts, PARs, field inspection

details, photos, etc.) for the crashes associated with the two (2) SDMs GM provided to Continental.”

Further, on April 3, 2014, GM submitted additional documents identified through targeted electronic searches in an effort to locate presentations, notes, minutes, memoranda, or summaries from the August 2007 and May 2009 meetings, which are included in Bates range GMNHTSA000248070-253371 and GMNHTSA000258205-263553.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 79.** On what date did GM initiate a Field Performance Evaluation “investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed during frontal impacts”?

## RESPONSE

On March 5, 2014, GM submitted to NHTSA copies of the briefing materials prepared for the EFADC meetings of December 17, 2013, and January 31, 2014. A slide titled “Chronology” appears at page 2 and page 13 of these PowerPoint presentations, respectively. This slide states that an “[i]nvestigator [was] assigned for airbag nondeployment” on August 24, 2011.

GM’s response to this request identifies the date on which the Field Performance Evaluation investigator was assigned, which may not be the same date on which GM initiated a Field Performance Evaluation investigation. GM’s response is based on information collected, reviewed and analyzed by GM at the time of this submission. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 84.** On what date did GM initiate a study using the "Red X" problem-solving methodology to “better understand[] the differences in observed torque performance”?

## RESPONSE

GM has identified and is processing e-mail communications between the FPAE engineer assigned in August 2011 and a Red X engineer regarding the initiation of a study using “Red X” problem-solving methodology and will submit responsive documents to NHTSA on a rolling basis.

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 88.** On what date did GM initiate a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance”?

## RESPONSE

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 92.** How did the Field Performance Assessment Engineer learn, in late April 2013, “that the torque performance of a GM service part ignition switch purchased after 2010 differed substantially from that of an ignition switch that was original equipment installed on a 2005 Cobalt”? Provide all related documents.

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 93.** Provide all documents related to the statement that the Field Performance Assessment Engineer “also learned that others had observed and documented that the detent plunger and spring used on the service part switch differed from those used on the original equipment switch installed on the 2005 Cobalt.”

**RESPONSE**

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is

thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 98.** Describe the “[t]esting and analysis” that “further determined that whether a key moves from the ‘run’ to ‘accessory’ position and how that key movement affects airbag deployment depends on a number of factors,” including the date(s) that the “[t]esting and analysis” was initiated and concluded, and provide all documents related to that “[t]esting and analysis.”

### **RESPONSE**

GM is collecting data responsive to this request and will submit responsive documents to NHTSA on a rolling basis. GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM’s response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 101.** Did the FPERC request further analysis? If so, describe the further analysis it requested, the reasons for the request, and provide all related documents.

## RESPONSE

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Request No. 105.** Describe the findings of the "further analysis" presented at a January 31, 2014 meeting with the Executive Field Action Decision Committee, and provide all related documents.

## RESPONSE

In its Eighth Interim Response to the Special Order submitted on April 3, 2014, GM inadvertently referred to an EFADC PowerPoint submitted to NHTSA on March 31, 2014 in its response to Request No. 105. We would like to correct that inadvertent mistake by submitting that the PowerPoint which discussed a description of the findings of the "further analysis" presented at the January 31, 2014 EFADC meeting was submitted to NHTSA on March 5, 2014 and not on March 31, 2014. GM's investigation and searches for documents and information responsive to this Request are ongoing. GM will supplement its response to NHTSA as necessary.

**Request No. 106.** With respect to the defect that is the subject of this recall, what model and model year vehicles did the Executive Field Action Decision Committee discuss at the December 17, 2013 meeting? If any vehicles other than MY 2005-2007 Chevrolet Cobalt and MY 2007 Pontiac G5 vehicles were discussed, describe in detail the content of those discussions, and provide all related documents.

### RESPONSE

In partial response to Request No. 106, GM has previously submitted the EFADC PowerPoint presentation that was discussed at the EFADC meeting on December 17, 2013. This PowerPoint presentation was submitted to NHTSA on March 5, 2014. The EFADC PowerPoint presentation discusses all model years of the Chevrolet Cobalt, Pursuit (Canada only), Pontiac G5, Saturn Ion, and the Chevrolet HHR. It also discusses the MY 2005-2007 Pontiac Solstice and Cadillac CTS. *See also* GM's Eighth Interim Response to Special Order, Response to Request 1 and 2.

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.



**Request No. 107.** With respect to the defect that is the subject of this recall, what model and model year vehicles did the Executive Field Action Decision Committee discuss at the January 31, 2014 meeting? If any vehicles other than the vehicles subject to this recall were discussed, described in detail the content of those discussions, and provide all related documents.

### **RESPONSE**

In partial response to Request No. 106, GM has submitted the EFADC PowerPoint presentation that was discussed at the EFADC meeting on January 31, 2014 meeting. This PowerPoint presentation was submitted to NHTSA on March 5, 2014. The EFADC PowerPoint presentation discusses all model years of the Chevrolet Cobalt, Pursuit (Canada only), Saturn Ion, Chevrolet HHR, and Pontiac G5. It also discusses the Lacrosse, Malibu, Cruze, Verano, Impala, Traverse, Camaro, Regal, Spark, Equinox, Sonic, Volt, CTS, NG, SRX, Colorado/Canyon, Equinox, Tahoe, Cadillac ATS, and Cadillac CTS. *See also* GM's Eighth Interim Response to Special Order, Response to Request 1 and 2.

GM has retained outside counsel, led by Anton Valukas, to conduct a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. To ensure that GM's response to this Request is thorough, accurate, and based on fully developed factual accounts, GM will supplement its responses to NHTSA as the internal investigation progresses.

**Documents Submitted In Response to Requests Not Contained in the  
Special Order**

In cooperation with NHTSA's Timeliness Query, GM has submitted documents in response to requests from NHTSA not set forth in the Special Order.

Submissions of material responsive to these requests include the following:

1. Documents produced in discovery, deposition transcripts and other documents from the *Melton* litigation at Bates range GMNHTSA000002904-197570, GMNHTSA000218055-0218119, GMNHTSA000229033-0230628, and GMNHTSA000230629-246683.
2. List of key terms and acronyms, at Bates range GMNHTSA000002851-52.
3. Documents related to Information Requests issued by NHTSA to GM on July 17, 2010 concerning GM's 2010 Product Safety Recall 10023 related to power steering at Bates range GMNHTSA000230629-246683.
4. Three EFADC presentations concerning the March 27, 2014 ignition switch service parts recall at Bates range GMNHTSA000218132-136.
5. Documents received from Delphi on March 31, 2014 at Bates range GMNHTSA000257777-58204.
6. GM partial organizational charts that include certain leadership functions during 2013-2014.



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 8, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") eleventh interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents which are responsive to the Special Order:

- 1) **Documents relating to communications with NHTSA; documents relating to the FPE investigative file; documents relating to Service Bulletins; and documents regarding changes to the ignition switch**
  - Bates range: GMNHTSA000271822 – GMNHTSA000276053
  - Enclosed are documents including the following:
    - Additional communications with NHTSA including additional NHTSA meeting agendas responsive to Request No. 14 and 15.
    - Documents related to the FPE investigative file responsive to Request No. 81.

O. Kevin Vincent, Esq.  
April 8, 2014  
Page 2

- o Documents related to the Service Bulletins responsive Request No. 44.
- o Records regarding changes to the ignition switch in 2006 and responsive to Request Nos. 61 and 97.

**2) Document related to the Red X study**

- This production also includes a 2012 e-mail communication related to the initiation the Red X study and specifically responsive to Request Nos. 84 and 87 of the Special Order. This document bears the Bates label GMNHTSA000274016 - GMNHTSA000274017.

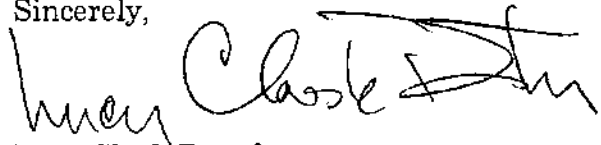
GM's production today is contained on discs bearing the following Bates range: GMNHTSA000271822 - GMNHTSA000276053.

The encryption key for the discs is 4EFA36DA2B5BE539090CE.

As you know, GM is conducting a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. GM will supplement its responses to NHTSA as the internal investigation progresses.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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*lucy.dougherty@gm.com*

April 9, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twelfth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, 14, 15, 20, 31, 33, 81, 94, and 96. Among these responsive documents are:

- Copies of technical specifications that include diagrams, engineering drawings, or discussion of ignition switches at GMNHTSA000276054-082, GMNHTSA000276114-134, and GMNHTSA000276264-324 (Request No. 2).
- E-mail regarding TREAD data for customer complaints regarding 2005-06 in Cobalt vehicles at GMNHTSA000277388 (Request No. 6).
- Copies of spreadsheets relating to customer complaints, buyback requests, and diagnostic trouble codes for Cobalt vehicles at GMNHTSA000277400, GMNHTSA000277427, GMNHTSA000277428, GMNHTSA000277429, and GMNHTSA000277399 (Request No. 6).

O. Kevin Vincent, Esq.  
 April 9, 2014  
 Page 2

- Copy of a "NHTSA/SCI" presentation, dated September 23, 2014, regarding the "SDM Coverage and CDR Usage Guide" at GMNHTSA000276522-560 (Request Nos. 14-15).
- Copies of slides titled "X001 Ignition Cylinder Effort - Next Actions" referencing PRTS #182276 at GMNHTSA000276650-651 (Request No. 20).
- E-mail regarding Cobalt test drives by a GM employee at GMNHTSA000276884-886 and a spreadsheet regarding ignition switch testing at GMNHTSA000278066 (Request No. 31).
- Copy of a "GMX001 Lock Module Detent in RUN" presentation at GMNHTSA000276572-580 (Request No. 33).
- Copies of spreadsheets and a chart regarding the status of Field Performance Evaluation ("FPE") processes regarding Cobalt vehicles in 2012 and 2013 GMNHTSA000277603, GMNHTSA000277609, GMNHTSA000277615, and GMNHTSA000278020-21 (Request No. 81).
- E-mail regarding discussions with Delphi and with outside engineering resources in 2013 at GMNHTSA000276112 (Request Nos. 94 and 96).

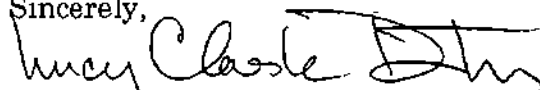
GM's production today is contained on DVDs which have the following Bates range: GMNHTSA000276054 - GMNHTSA000279439.

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. At the same time, GM is collecting terabytes of data relevant to the ten year time period the Special Order covers. GM will supplement its responses to NHTSA as the internal investigation and the document production progresses.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
 Vice President and General Counsel  
 General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 10, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") thirteenth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, 20, 26, 81, and 98. These responsive documents include:

- Copies of technical specifications for the "Steering Subsystem" of the GMX001 and GMT001 platforms at GMNHTSA000279449-538 (Request No. 2).
- PowerPoint presentations entitled "2008 GMX001 Content" and "Parts and Illustration Catalog" reflecting technical specifications for the Saturn Ion and Chevrolet Cobalt at GMNHTSA000279671-280567, GMNHTSA000280568-586 and GMNHTSA280589-0684 (Request No. 2).
- Spreadsheet reflecting the status of Problem Resolution Tracking System ("PRTS") inquiries, dated June 2, 2004, at GMNHTSA000279545 (Request Nos. 6 and 20).

O. Kevin Vincent, Esq.

April 10, 2014

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- E-mails in February 2005 regarding "Torque Study -- X001 Ign Cylinder rotation effort" and attached PowerPoint entitled "GMX001 Lock Module Detent in RUN 20050216" regarding a presentation "that was made at CPIT last week and that will be visited at VAPIR on 3/1" at GMNHTSA000279604-05 (Request Nos. 6 and 20).
- E-mail dated February 21, 2014 regarding the validation plan for Cobalt ignition switches at GMNHTSA000284218-220 (Request No. 26).
- E-mail regarding estimated costs for field actions relating to the 2005-2007 Cobalt ignition switch at GMNHTSA000283477 (Request No. 81).
- E-mail dated February 5, 2014 regarding the Cobalt ignition population, cost, and documentation from Delphi at GMNHTSA000283937-38 and GMNHTSA000283939-40 (Request No. 81).
- E-mail and spreadsheet relating to stall claims in Cobalt vehicles at GMNHTSA000283960 and GMNHTSA000283961 (Request No. 81).
- E-mail regarding preventative action letter for Cobalt ignition switches at GMNHTSA000283943 and GMNHTSA000283944 (Request No. 81).
- Graphics regarding knee clearance in Cobalt, CTS, and Lacrosse vehicles at GMNHTSA000283479 (Response No. 81).
- Slides regarding mechanical solutions for ignition switches at GMNHTSA000282956-57 (Request Nos. 81 and 98).
- Spreadsheet regarding Ignition Switch Field Testing at GMNHTSA000283936 (Request Nos. 81 and 98).
- E-mail regarding 2012 and 2013 discussions between FPE investigators and GM engineers relating to mechanical solutions for the ignition switch at GMNHTSA000282943-45, GMNHTSA000282946-949, and GMNHTSA000282954-55 (Request Nos. 81 and 98).



O. Kevin Vincent, Esq.  
April 10, 2014  
Page 3

- E-mail regarding 2013 discussion between an FPE investigator and GM engineer regarding added switch capacity for Cobalt at GMNHTSA000283474 (Request Nos. 81 and 98).

GM's production today is contained on DVDs which have the following Bates range: GMNHTSA000279440 - GMNHTSA000284704.

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. At the same time, GM is collecting terabytes of data relevant to the ten-year time period the Special Order covers. GM will supplement its responses to NHTSA as the internal investigation and the document production progresses.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
[lucy.dougherty@gm.com](mailto:lucy.dougherty@gm.com)

April 11, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") fourteenth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Attached to this letter is a written response to the Special Order Request No. 2. The portion of the request to which a response is provided will be quoted.

Additionally, enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 6, 8, 30, 34, 40, 65, 69, and 81. These responsive documents include:

- Crash data analysis report dated 2011 from Bosch related to a frontal impact crash in which air bags did not deploy at GMNHTSA000286918-930 (Request No. 6).
- A Complaint filed in *Rimer, et. al. v. General Motors, et. al.*, on March 20, 2014 in Minnesota State District Court for Hennepin County, related to a frontal impact crash in which the recall condition may have caused or contributed to air bag non-deployment for which an Incident Without Claim file was previously submitted to NHTSA on

O. Kevin Vincent, Esq.  
April 11, 2014  
Page 2

March 27, 2014. The Complaint is enclosed with this letter (Request Nos. 6 and 8).

- TREAD "Summary Data Analysis" reflecting records related to stalls when the "ignition key is struck in some manner" at GMNHTSA000285059 (Request Nos. 6, 30, and 34).
- E-mail dated April 4, 2007 with a subject of "Chevrolet Cobalt Air Bag ETAs" and attaching Early Technical Assessment System Data Sheets for frontal impacts in which air bags did not deploy at GMNHTSA000285177-5214 (Request Nos. 6 and 69).
- PowerPoint presentation, dated October 16, 2008, and entitled "E7200 Cobalt Warranty [R]eduction" regarding solutions to decrease Cobalt warranty claims which included the options of changing the ignition switch to a higher detent force and changing the key from a slot to a hole at GMNHTSA000285711-17 (Request Nos. 40 and 65).
- General Motors "Commodity Validation Sign-Off" form regarding ignition switch change for Chevrolet Cobalt platform GMX001, dated May 3, 2007 at GMNHTSA000284705 (Request Nos. 65).
- E-mail dated June 21, 2012 regarding an analysis of the Sensing Diagnostic Module ("SDM") software and air bag deployment algorithms at GMNHTSA000288231-33 (Request No. 81).

GM's production today is contained on DVDs which have the following Bates range: GMNHTSA000284705 – GMNHTSA000291319.

The encryption key for the DVDs is 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. At the same time, GM is collecting terabytes of data relevant to the ten-year time period the Special Order covers. GM will supplement its responses to NHTSA as the internal investigation and the document production progress.

O. Kevin Vincent, Esq.  
April 11, 2014  
Page 3

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated

UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

.....  
**In re:**

TQ14-001

NHTSA Recall No. 14V-047  
.....

**GENERAL MOTORS LLC'S FOURTEENTH INTERIM RESPONSE TO  
MARCH 4, 2014 SPECIAL ORDER**

General Motors LLC ("GM") hereby submits this fourteenth interim response to the Special Order issued by the Secretary of Transportation on March 4, 2014.

GM is working diligently to complete its response to this Special Order and will supplement this filing on a rolling basis.

The portion of the request to which a response is provided will be quoted.

**REQUESTS**

**Request No. 2.** Lastly, describe and discuss GM's use of the original and modified versions of the subject switch as service parts sold to third parties for both subject, and non-subject vehicle repairs, including how GM intends to manage and control any suspect stock or inventory of unmodified subject ignition switches that

could inadvertently be used as a service part (and potentially introduce a defect condition into a vehicle).<sup>1</sup>

### RESPONSE

General Motors previously sold the subject switch to GM Dealers and ACDelco Parts Distributors as Ignition & Start Switch service part number 10392423, and the following Ignition & Start Switch Housing Kits that contain or may contain part number 10392423: GM Parts and ACDelco service part numbers 10392737, 15857948, 15854953, 15896640, and 25846762. GM records indicate that these service parts may have been installed during repairs in some 2008-2010 MY Chevrolet Cobalt, 2008-2011 MY Chevrolet HHR, 2008-2010 MY Pontiac Solstice, 2008-2010 MY Pontiac G5, and 2008-2010 MY Saturn Sky vehicles. Safety recall letters will be mailed to owners of all 2008-2010 MY Chevrolet Cobalt, 2008-2011 MY Chevrolet HHR, 2008-2010 MY Pontiac Solstice, 2008-2010 MY Pontiac G5, and 2008-2010 MY Saturn Sky vehicles, and their ignition switches will be replaced.

In addition, a safety recall letter will be mailed to the owner of any vehicle other than those listed in the preceding paragraph or those subject to the recalls announced on February 7 and February 25, 2014,<sup>2</sup> identified in GM records as having been repaired with the subject ignition switch or one of the five housing kits

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<sup>1</sup> GM previously submitted a response to Request No. 2 in GM's Eighth Interim Response to the Special Order, which was submitted to NHTSA on April 3, 2014.

<sup>2</sup> On February 7, 2014, GM announced a recall of 2005-2007 model year Chevrolet Cobalt and 2007 model year Pontiac G5 vehicles. On February 25, 2014, GM announced a recall of 2003-2007 model year Saturn Ion, 2006-2007 model year Chevrolet HHR and Pontiac Solstice, and 2007 model year Saturn Sky vehicles.

identified above. Dealers will inspect the vehicle and, if the subject ignition switch is found, replace it with a new one.

GM has notified all GM Dealers and Parts Distributors to quarantine all defective part numbers and issued a stop sale of those part numbers. All suspect stock is requested to be returned.

In addition, GM will issue a service parts safety bulletin to GM Dealers, ACDelco Distributors and other wholesale purchasers of part number 10392423 or service part assemblies that may contain part number 10392423, instructing them to post signs in the dealerships and other retail auto part businesses for over-the-counter sales, and identify and notify customers who may have purchased the referenced parts about the recall.

STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF HENNEPIN

FOURTH JUDICIAL DISTRICT

Jayne Rimer and Doug Weigel as Co-Trustees for the heirs of Natasha Weigel, Deceased, Margie Beskau as Trustee for the heirs of Amy Rademaker, Deceased, and Megan Phillips

Court File No. \_\_\_\_\_

Plaintiffs,

**SUMMONS**

vs.

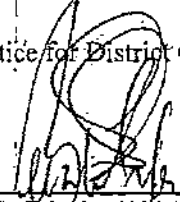
✓ General Motors, LLC, Rosedale Chevrolet, LLC and Thomas Kerns

Defendants,

THE STATE OF MINNESOTA TO THE ABOVE-NAMED DEFENDANTS:

**YOU ARE HEREBY SUMMONED** and required to serve upon Plaintiff an Answer to the Complaint which is herewith served upon you within twenty (20) days after service of this Summons upon you, exclusive of the date of service. If you fail to do so, Judgment by default will be taken against you for the relief demanded in the Complaint. All civil actions are subject to the Alternative Dispute Resolution (ADR) process as set forth in the Minnesota General Rules of Practice for District Courts.

Dated: 3/20/14

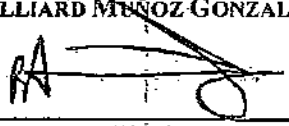
By:   
Brent S. Schafer (0234047)  
SCHAFFER LAW FIRM, P.A.  
Attorney for Plaintiff  
991 Sibley Memorial Highway  
Suite 207  
651-209-1919 office  
651-454-8821 fax  
bschafer@schaferlawfirm.com



Dated: 3/20/14

**HILLIARD MUÑOZ-GONZALES LLP**

By: \_\_\_\_\_



Robert C. Hilliard  
 State Bar No. 09677700  
[bobh@hmglawfirm.com](mailto:bobh@hmglawfirm.com)  
 Rudy Gonzales, Jr.  
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 Todd A. Hunter, Jr.  
 State Bar No. 24087774  
[todd@hmglawfirm.com](mailto:todd@hmglawfirm.com)

719 S. Shoreline Boulevard,  
 Suite 500  
 Corpus Christi, TX 78401  
 Telephone No.: (361) 882-1612  
 Facsimile No.: (361) 882-3015

**THOMAS J. HENRY INJURY ATTORNEYS**

By: *s/ Thomas J. Henry*

Thomas J. Henry  
State Bar No. 09484210  
Greggory A. Teeter  
State Bar No. 24033264  
Travis Venable  
State Bar No. 24068577

521 Starr St.  
Corpus Christi, Texas 78401  
Telephone No.: (361) 985-0600  
Facsimile No.: (361) 985-0601

STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF HENNEPIN

FOURTH JUDICIAL DISTRICT

Jayne Rimer and Doug Weigel as Co-Trustees  
for the heirs of Natasha Weigel, Deceased,  
Margie Beskau as Trustee for the heirs of Amy  
Rademaker, Deceased, and Megan Phillips

Personal Injury/Wrongful Death

**COMPLAINT**

Plaintiffs,

vs.

Court File No. \_\_\_\_\_

General Motors, LLC, Rosedale Chevrolet,  
LLC and Thomas Kerns

Defendants,

---

COME NOW the Plaintiffs, by and through their attorneys and for their causes of action against the Defendants above-named, state and allege as follows:

1. Plaintiff Jayne Rimer has a permanent residence at 512 171st, Hammond, Wisconsin 54015.
2. Plaintiff Doug Weigel has a permanent residence at 509 St. Thomas, Albert Lea, Minnesota 56007.
3. Plaintiff Margie Beskau has a permanent residence at 207 Olson Dr., Woodville, Wisconsin 54028.
4. Plaintiff Megan Phillips has a permanent residence at 100 1st Street NW, Adams, Minnesota 55909.
5. Defendant General Motors LLC (herein "GM"<sup>a</sup>) is a limited liability company

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<sup>a</sup> The reference in this Complaint to "GM" shall include both the named Defendant and the obligations of its predecessor (herein the "Old GM") inasmuch as GM expressly assumed "the warranty and recall obligations of both the Old GM and New GM."

that is organized under the laws of the State of Minnesota. GM is registered to do business and is and was at all times relevant herein regularly engaged in business in the State of Minnesota. Upon information and belief, its partners are citizens of the State of Minnesota. The statutory agent for service of process upon Defendant General Motors LLC in Minnesota is Corporation Service Company located at 380 Jackson Street, Suite 700, St. Paul, Minnesota 55101. At all times relevant to these proceedings, Defendant General Motors LLC aggressively advertised and marketed its motor vehicles in the State of Minnesota, and thereby purposefully directed its business activities at Minnesota residents.

6. Defendant dealer Rosedale Chevrolet, LLC is a domestic limited liability company with its principal place of business in Minnetonka, Hennepin County, Minneapolis. The statutory agent for service of process upon Defendant Rosedale Chevrolet is located at 7625 Metro Blvd. #300, Edina, Minnesota 55439.

7. Defendant Thomas Kerns has a permanent residence at P.O. Box 183, Geneva, Minnesota 56035.

8. The Court has personal jurisdiction over the parties to this action.

9. Venue is appropriate in this Court.

10. Defendant GM designed, manufactured, assembled, inspected, tested, marketed, advertised and distributed into the stream of commerce a certain model year 2005 Chevrolet Cobalt with VIN 1G1AK52F657565454 (herein after "Subject Vehicle") and thereafter instructed its dealers regarding the nature of the defects of the subject recalled vehicles including the extent of disclosures permitted to be made regarding the subject recalled vehicles as well as instructions in place to its dealers regarding modifications to be made to the subject recalled vehicles just before the disclosures made by GM in 2014, as set out herein.

11. As a result of these instructions and notice to each of the GM dealers, the Defendant Dealer became a member of the conspiracy of non-disclosure, more fully described below.

### FACTS

12. On October 24, 2006, seventeen-year-old Megan Phillips was driving her 2005 Chevy Cobalt with her two friends, Natasha Weigel and Amy Rademaker. As she was driving, the vehicle's ignition switch turned from the "run" position to the "accessory" position. As a direct and proximate result of this event the 2005 Chevy Cobalt lost all power steering, power braking as well as the ability of the airbag to deploy. The 2005 Chevy Cobalt, unable to be controlled, veered off the road and ultimately and violently struck a telephone junction box and two trees. Because the ignition switch was in the "accessory" position, the airbags failed to deploy so that the impact, coupled with this doubling of the effects of the defect (loss of control and upon impact, no air bag safety system) assured serious injury to the Cobalt driver Megan Phillips, and serious injury and the ultimate death of Amy Rademaker who was in the front passenger seat. Natasha Weigel, who was in the back seat, driver's side, as a direct and proximate result of the impact caused by the defect, suffered serious injuries and subsequently died from those injuries. GM, at and after GM privately shared notice of this serious defect, and all of GM's dealers, had a duty to warn defendant, Thomas Kerns (the owner of the vehicle) of the known defect. GM and its dealers with actual knowledge had duties to all owners of these defective vehicles, including Thomas Kerns, all of which were knowingly, intentionally and fraudulently ignored and intentionally kept secret from the public, which resulted in the above injuries and deaths.

13. Amy Rademaker suffered severe injuries, and later died.

14. Natasha Weigel suffered severe injuries, and later died.

15. Megan Phillips sustained permanent and irreparable injuries, including but not limited to, a severe brain injury and severe crushing injuries resulting in multiple fractures of bones in her body including, chest, face, legs, and arms.

16. At the time of Plaintiffs' injuries, the above-referenced Cobalt was in substantially the same condition as when it was originally designed, manufactured and sold by Defendant GM, and in fact was in that condition in part because GM instructed its dealers not to disclose to its Subject Vehicle customer the full defective nature of the ignition switch. In fact, rather than issue a recall, GM sent private notices to its dealers in 2005 and 2006, telling them that certain models' ignition switches could unexpectedly shut off, powering down their cars' engines. According to those non-public bulletins, dealers were to tell drivers who "were short" to remove unessential items from their key chains, but not to tell the owners of the danger and the immediate need for a replacement.

17. Plaintiffs bring this suit at the first occasion that Plaintiffs were made aware of, and first discovered, GM's and its dealers' knowing and intentional fraudulent non-disclosure, intentionally breaching the multiple duties GM and its dealers owed to Plaintiffs.

**Recall notices raise issues concerning GM vehicles**

18. On February 7, 2014, General Motors filed a Defect Notice to recall 2005-2007 Model Year Chevrolet Cobalt and 2007 Pontiac G5 vehicles. The Defect Notice stated the ignition switch torque performance in these vehicles might not meet General Motors' specifications resulting in the non-deployment of airbags in crash events. The notice called for the recall of approximately six hundred thousand vehicles.

19. Seventeen days later, on February 24, 2014 General Motors issued a notice to the

National Highway Traffic Safety Administration which expanded the recall to include 2003-2007 Saturn Ions, 2006-2007 Chevrolet HHRs, 2006-2007 Pontiac Solstices and 2007 Saturn Skys, bringing the total affected U.S. vehicle population to 1,367,146.

20. The February 24, 2014 notice provided a chronology that detailed General Motors' knowledge, deliberate inaction, and actions to cover up alleged defects related to the ignition switch. In each of these instances, GM had a duty to warn Plaintiffs, and to put in motion the recall obligations imposed by law on GM that would have resulted in the public's actual notice of this hidden defect, and not only failed in that duty, but initiated a plan and scheme of fraudulent non-disclosure of this deadly defect - a plan that GM has concealed until discovered in 2014 admissions.

21. Notably, even the 2014 recalls did not provide immediate relief for vehicle owners. Rather, GM disclosed that dangerous defects existed and stated that GM would implement a repair plan in the future, as GM postured for its own financial benefit. Even after GM admitted its fraud, and had actual knowledge of the deaths caused by its fraud, GM has still not issued a "do not drive" notice to the owners of the recall vehicles.

**Remarkably, GM knew of the condition since 2004**

22. In 2004, before the launch of the 2005 Cobalt, GM became aware of incidents wherein the vehicle engine would suddenly lose power in the event the key moved out of the "run" position when the driver inadvertently contacted the key or steering column. An investigation was opened and after consideration of lead-time required, cost and effectiveness of potential solutions, incredibly the investigation was closed and no action taken.

23. Throughout 2005, GM received similar field reports of vehicles losing engine power when the key moved out of the "run" position. A proposal was approved to redesign the

key head, but later cancelled. Instead of complying with its recall obligations and initiating an immediate recall of the vehicles to replace the defective ignition switches, GM issued a private Safety Bulletin to its dealers, including Defendant Roseland. The Bulletin recognized (and actually shaded the full truth of its knowledge) that there was a potential for the driver to inadvertently turn off the ignition due to low ignition key cylinder torque/effort. The failure to warn was solely to protect the available funds of GM, which at or around this time was entering the zone of its insolvency and elected to preserve its cash rather than preserve the lives of its vehicle owners, including Plaintiffs.

24. Although GM developed an insert for the key ring that changed it from a slot design to a hole-design to prevent the key from easily jogging the ignition switch out of the run position, the redesigned ignition switch was not installed in vehicles until the 2007 model year, and the public was never told through a recall (until 2014) that it was critical to have this defect repaired to avoid the potential for a deadly accident.

25. During GM's intentional silence, the defective ignition switch has been linked to 33 crashes and 13 fatalities in the United States.

26. Given the vast number of instances of sudden engine power loss and non-deployment of airbags related to the defective ignition switch and GM's knowledge of many or all of the instances, GM should have aggressively developed a remedy years before the fatal crash of the Subject Vehicle, notified the public of the defect and warned the public of the dangers of their product. GM, and later its dealers, knowingly and intentionally failed to do so. In fact, its first recall was not implemented until 2014, nearly ten years after knowing instances of engine power loss.

27. The ignition switch defect in GM vehicles has adversely affected the company's



reputation as a manufacturer of safe, reliable vehicles with high resale value, as compared to vehicles made by their competitors. In the wake of the news reports about this serious problem, GM customers and consumers generally are – as they should be – skeptical about the quality and safety of GM vehicles. Indeed, it is likely that the entire fleet of GM vehicles has been stigmatized by this defect, but most specifically the vehicles directly affected by this recall.

28. GM's gross mishandling of the ignition switch defect, including but not limited to its denial and deliberate cover up of any problem, even after receiving a substantial number of reports of sudden engine power loss, including ones that resulted in serious physical injury or death, and all other allegations set forth herein, has adversely affected the company's reputation as a manufacturer of safe, reliable vehicles with high resale value, as compared to vehicles made by its competitors. GM customers and the general public have reason to be skeptical about whether GM is coming forth with truthful information about the sudden loss of power defect. Likewise, GM customers and the general public are left to wonder whether safety concerns about GM vehicles are limited to this particular problem.

**COUNT ONE AGAINST DEFENDANT GM – NEGLIGENCE – DEFECTIVE DESIGN**

29. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

30. GM was negligent in designing, manufacturing, assembling, inspecting, testing, labeling, monitoring, promoting, distributing and selling the subject vehicle and its component parts. Specifically, the aforesaid collision and resulting injuries sustained by Plaintiffs were the direct result of the negligence of Defendants GM in the design of the ignition switch in the subject Cobalt.

31. GM failed to exercise reasonable care to design a product which was not

unreasonably dangerous, and GM did, in fact, design a product which was dangerous to an extent beyond which a person with ordinary knowledge common to the community would contemplate when used as intended or used in a manner which GM could reasonably anticipate.

32. GM was negligent in failing to recall the subject Cobalt so as to safely redesign and manufacture the said ignition.

33. As a direct result of GM's negligence, Plaintiffs sustained severe and permanent injuries.

**COUNT TWO AGAINST DEFENDANT GM - NEGLIGENCE -  
DEFECTIVE MANUFACTURE**

34. Plaintiffs re-allege and incorporate herein all of the allegations contained in the paragraphs above.

35. GM was negligent in designing, manufacturing, assembling, inspecting, testing, labeling, monitoring, promoting, distributing and selling the subject vehicle and its component parts. Specifically, the aforesaid collision and resulting injuries sustained by Plaintiffs were the direct result of the negligence of Defendant GM in the manufacture of the ignition switch in the subject Cobalt.

36. GM's negligence includes, but is not limited to, the failure to exercise reasonable care in the manufacture, assembly and testing of the subject Cobalt.

37. As a direct result of GM's negligence, Plaintiffs sustained severe and permanent injuries.

**COUNT THREE AGAINST DEFENDANT GM - NEGLIGENCE -  
SALE OF DEFECTIVE PRODUCTS**

38. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

39. GM was negligent in designing, manufacturing, assembling, inspecting, testing, labeling, monitoring, promoting, distributing and selling the subject vehicle and its component parts. Specifically, GM was subject to a continuing duty not to sell products that it knew or had reason to know would be dangerous to others.

40. GM knew that the Cobalt was defective and unreasonably dangerous, yet sold that vehicle to the general public.

41. The aforesaid collision and resulting injuries sustained by the Plaintiffs were a direct result of the negligence of GM as the seller of the subject vehicle.

42. As a direct result of GM's negligence, Plaintiffs sustained severe and permanent injuries.

#### **COUNT FOUR AGAINST DEFENDANT GM - STRICT LIABILITY**

43. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

44. GM designed, manufactured and sold the subject Cobalt and were under a strict duty to design, manufacture and sell the subject Cobalt so that it would be safe for its intended use and free of any defective and unreasonably dangerous conditions. GM was under an additional duty to provide adequate warning or instructions for the user of their vehicles.

45. The subject Cobalt was designed, manufactured, sold and distributed in a defective manner, unreasonably dangerous to the user so as to make GM liable in strict liability. Further, GM failed to provide adequate warnings, instructions, guidelines or admonitions to their consumers and vulnerable members of the public, including Plaintiffs, of the design and manufacturing defects which GM knew, or in the exercise of reasonable care, should have known existed in the subject vehicle and its component parts.

46. GM knew that these substantial dangers were not readily recognizable to an ordinary consumer and that consumers would purchase and use these products without inspection.

47. At the time of subject incident, the subject vehicle was being used in a manner intended by GM and in a manner reasonably foreseeable to GM.

48. The aforesaid collision and resulting injuries sustained by the Plaintiffs were a direct result of GM's failure to design, manufacture, and sell the subject Cobalt free from defects and in an unreasonably dangerous condition, and were a direct result of GM's failure to provide adequate warning, instructions, guidelines, or admonitions to their consumers about the defective vehicle and its component parts.

49. As a direct and proximate result of GM's conduct, and the defective nature of the subject vehicle, decedents Natasha Weigel and Amy Rademaker died prematurely and unnecessarily. Plaintiffs sustained severe and permanent injuries.

**COUNT FIVE AGAINST DEFENDANT GM – FRAUD BY NON-DISCLOSURE**

50. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

51. GM concealed from or failed to disclose certain facts to the Plaintiffs.

52. GM had a duty to disclose the facts to the Plaintiffs.

53. The facts were material.

54. GM knew:

- i. the Plaintiffs were ignorant of the facts; and
- ii. the Plaintiffs did not have an equal opportunity to discover the facts.

55. By failing to disclose the facts, GM intended to induce the Plaintiffs to take some

action or refrain from acting.

56. The Plaintiffs relied on GM's non-disclosure

57. The Plaintiffs were injured as a result of acting without the knowledge of the undisclosed facts.

**COUNT SIX – ALTERNATIVE RELIEF AGAINST DEFENDANT GM NEGLIGENCE – FAILURE TO WARN**

58. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

59. GM was negligent in designing, manufacturing, assembling, inspecting, testing, labeling, monitoring, promoting, distributing and selling the subject vehicle and its component parts. Specifically, GM was subject to a continuing duty to warn foreseeable end-users of the subject Cobalt. At all times material, GM failed to provide reasonable adequate warnings and instructions for the subject Cobalt.

60. The aforesaid collision and resulting injuries sustained by the Plaintiffs were a direct result of the negligence of GM in its failure to warn the Plaintiffs, foreseeable end-users of the subject Cobalt of the defective design and manufacture of the Cobalt.

61. As a direct result of GM's negligence, Plaintiffs sustained severe and permanent injuries.

**COUNT SEVEN AGAINST THE GM AND DEALERSHIP DEFENDANTS – MISREPRESENTATION**

63. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

64. Throughout the relevant time period, GM and Rosedale Chevrolet, LLC knew that the subject vehicle was defective in that these vehicles had an unreasonably dangerous

propensity to unexpectedly shut off, powering down their cars' engines, and thereby injuring the user of these vehicles and others, including Plaintiffs.

65. GM and Rosedale Chevrolet, LLC was under a duty to disclose and warn of the defective nature of the subject vehicle because:

- a. Each of the foregoing named Defendants were in a superior position to know the true state of the facts about the hidden defect in the subject vehicle, and that the defect was latent;
- b. Each of the foregoing named Defendants made partial disclosures about the safety and quality of the subject vehicle while not revealing its true defective nature; and
- c. Each of the foregoing named Defendants fraudulently and affirmatively concealed the defective nature of the subject vehicle.

66. As set forth herein, each of the foregoing named Defendants have had knowledge of the unreasonable safety ignition switch defect of the subject vehicle since at least as early as 2001. The existence of this unreasonable safety defect, that is substantially certain to manifest itself during the useful life of GM vehicles, is a material fact that each of the foregoing named Defendants were duty-bound to disclose to Plaintiffs because the disclosure of the existence of the unreasonable safety defect in the ignition switch of the GM vehicles to reasonable consumers would have caused such reasonable consumers to behave differently. More specifically, had the existence of the unreasonable safety defect in the ignition switch of GM vehicles been disclosed to Thomas Kerns, a reasonable consumer, he would not have purchased his vehicle.

67. Thomas Kerns did not have knowledge that the vehicle he purchased was equipped with a defective ignition switch at the time that he purchased the vehicle. Kerns, as a

reasonable consumer, would not have purchased the vehicle had the existence of the unreasonable safety defect in the ignition switches of GM vehicles been disclosed to him.

68. Defendants intentionally concealed and failed to disclose the true nature of the problems with the subject vehicle, and based on this false sense of safety, induced the purchase of the subject vehicle by Thomas Kerns.

69. Because GM has had actual knowledge of the existence of the defect in the ignition switches of its vehicles since at least as early as 2001, GM could have, but did not, disclose the existence of the defect in the marketing materials that they prepared, distributed and utilized in marketing the subject vehicles to reasonable consumers, including Kerns.

70. Defendants have not adequately notified past purchasers or warned future purchasers of the defect, and have not taken appropriate action to recall, buy back or retrofit their defective product.

71. The aforesaid collision and resulting injuries sustained by the Plaintiffs were a direct result of the negligence of GM, as the seller of the subject vehicle.

72. As a direct result of GM's negligence, Plaintiffs sustained severe and permanent injuries.

**COUNT EIGHT AGAINST ALL GM AND DEALERSHIP DEFENDANTS -  
CONSUMER FRAUD**

73. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.

74. Minn. Stat. § 325F.69 ("the Consumer Fraud Act") prohibits the act, use, or employment by any person of any fraud, false pretense, false promise, misrepresentation, misleading statement or deceptive practices, with the intent that others rely thereon in connection

with the sale of any merchandise whether or not any person has in fact been misled, deceived, or damaged thereby, and is enjoined as provided herein.

75. All Defendants named herein sell vehicles, vehicle components, and related services within the meaning of "merchandise" under Minn. Stat. § 325F.68, subd. 2.

76. The Defendants named herein intended that individuals, like Plaintiffs, rely on their fraudulent, false, deceptive and/or misleading statements and practices, in connection with their sale of the vehicles, vehicle components, and related services.

77. In violation of Minn. Stat. § 325F.69, subd. 1, the Defendants deceptively refused to disclose their knowledge of the defective nature of the ignition switch, and the associated deaths, with the intent that consumers, such as the Plaintiffs, would purchase, use, and maintain GM vehicles, benefitting Defendants financially.

78. In violation of Minn. Stat. § 325F.69, subd. 1, the Defendants concealed material facts with the intent that consumers, such as the Plaintiffs, rely on half-truths in connection with the sale of vehicles, vehicle components, and related services.

79. Defendants' conduct described in the above paragraphs constitutes violations of Minnesota's Prevention of Consumer Fraud Act, Minn. Stat. § 325F.69, subd. 1 (2000), injuring Plaintiffs and entitling them to damages, injunctive and equitable relief, including but not limited to restitution and disgorgement, and an award of legal expenses and fees pursuant to Minn. Stat. § 8.31, subd. 3a.

**COUNT NINE AGAINST ALL GM AND DEALERSHIP DEFENDANTS – CIVIL  
CONSPIRACY**

80. Plaintiffs re-allege and incorporate herein all of the allegations contained in paragraphs above.



81. Defendants have combined with one or more of each other and acted in concert with the common purpose of committing the fraud, fraudulent non-disclosure, misrepresentations, and deceptive practices as alleged above in Counts 1-8.

82. Defendants' combination and actions as set forth herein were undertaken with a common purpose to accomplish an unlawful act or to accomplish a lawful act by unlawful means, and constitutes a civil conspiracy.

83. Plaintiffs have been, and will continue to be, damaged and irreparably injured by Defendants' civil conspiracy, and are without a complete and adequate remedy at law.

84. Defendants must be enjoined from continuing the civil conspiracy, and Plaintiffs are entitled to damages, injunctive and equitable relief, including but not limited to restitution and disgorgement, and an award of legal expenses and fees.

#### **SINGLE CAUSE OF ACTION AGAINST DEFENDANT THOMAS KERNS**

85. Though it is unlikely that, due to the type of defective and extremely dangerous hidden condition of the GM Cobalt, anything could have been done to prevent this incident by Thomas Kerns, still, according to the police report "a review of Ms. Ungar-Kerns drivers' license status showed that she had a valid instruction permit. The instruction permit requires a qualified licensed driver be seated in the right front seat. According to the Wisconsin Department of Transportation drivers' license files, the right front seat passenger Amy Rademaker did not have a drivers' license and was not a qualified licensed driver." Mr. Kerns may have been 1% negligent in entrusting his vehicle to Ms. Ungar-Kerns given her drivers' license status—though the sequence of events leading to this terrible accident was directly initiated by the defect in the GM Cobalt.

#### **CLAIMS FOR RELIEF**

86. As a direct result of the collision on October 26, 2006, the Plaintiff Megan Phillips suffered severe personal injuries and damages, including but not limited to a severe brain injury, severe crushing injuries resulting in multiple fractures of bones in her body including, chest, face, legs, arms and other injuries which resulted in damages and losses for past and future medical care and treatment, past loss of earning and future loss of earning capacity and past and future pain, suffering, disability, disfigurement, emotional distress and other damages as allowed by law in an amount greater than fifty thousand dollars (\$50,000.00).

87. As a direct result of the collision on October 26, 2006, and the actions and conduct of the Defendants, Plaintiff Jayne Rimer, as Co-Trustee for the heirs of Natasha Weigel, deceased, have suffered a permanent and substantial personal and pecuniary loss, including the deprivation of advice, counsel, aid, comfort, assistance, guidance, protection, support, and companionship of the decedent, monies, income, goods and services, and the reasonable expectation of such pecuniary loss in the future as would have been occasioned by the continued life of decedent, Natasha Weigel; and have incurred expenses for her last care and treatment and funeral and burial expenses; and have otherwise suffered other damages and pecuniary losses within the meaning of Minn. Stat. § 573.02, all to their damage in a sum exceeding Fifty Thousand Dollars (\$50,000.00).

88. As a direct result of the collision on October 26, 2006, and the actions and conduct of the Defendants, Plaintiff Doug Weigel, as Co-Trustee for the heirs of Natasha Weigel, deceased, have suffered a permanent and substantial personal and pecuniary loss, including the deprivation of advice, counsel, aid, comfort, assistance, guidance, protection, support, and companionship of the decedent, monies, income, goods and services, and the reasonable expectation of such pecuniary loss in the future as would have been occasioned by the

continued life of decedent, Natasha Weigel, and have incurred expenses for her last care and treatment and funeral and burial expenses, and have otherwise suffered other damages and pecuniary losses within the meaning of Minn. Stat. § 573.02, all to their damage in a sum exceeding fifty Thousand Dollars (\$50,000.00).

89. As a direct result of the collision on October 26, 2006, Plaintiff Margie Beskau, as Trustee for the heirs of Amy Rademaker, deceased, have suffered a permanent and substantial personal and pecuniary loss, including the deprivation of advice, counsel, aid, comfort, assistance, guidance, protection, support, and companionship of the decedent, monies, income, goods and services, and the reasonable expectation of such pecuniary loss in the future as would have been occasioned by the continued life of decedent, Amy Rademaker, and have incurred expenses for her last care and treatment and funeral and burial expenses, and have otherwise suffered other damages and pecuniary losses within the meaning of Minn. Stat. § 573.02, all to their damage in a sum exceeding fifty Thousand Dollars (\$50,000.00).

WHEREFORE, Plaintiffs pray for judgment against each of the above Defendants for an amount greater than fifty thousand dollars (\$50,000.00) for the injuries and damages sustained by the Plaintiffs, and interest, costs and disbursements herein, as allowed by law, attorneys' fees pursuant to Minn. Stat. § 8.31, and for such other and future relief as may be granted.

PLAINTIFFS HEREBY DEMAND TRIAL BY JURY.

Dated: 3/20/14

SCHAEFER LAW FIRM, P.A.

BY: 

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Dated: \_\_\_\_\_

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By: \_\_\_\_\_

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**THOMAS J. HENRY INJURY ATTORNEYS**

By: s/ Thomas J. Henry

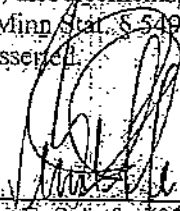
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**ACKNOWLEDGMENT**

The undersigned hereby acknowledges that costs, disbursements, and reasonable attorneys and witness fees may be awarded pursuant to Minn. Stat. § 549.211, Subd. 2, to the party against whom the allegations in this pleading are asserted.

Dated: 3/20/14

  
\_\_\_\_\_  
Brent S. Schafer (0234047)



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
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*lucy.dougherty@gm.com*

April 16, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") fifteenth interim, partial response to the Special Order dated March 4, 2014. GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents which are responsive to the Special Order:

**1) Not in Suit Matter ("NISM") and Incident Without Claim materials**

- Today's submission includes a NISM file associated with the Erica Lambert litigation in which the recall condition may have caused or contributed to airbag non-deployment in a frontal-impact crash. We previously submitted information to you related to the Lambert litigation on March 25, March 27, and April 3, 2014. *See* GMNHTSA000292899 - GMNHTSA000292983.
- Today's submission also includes a file related to an Incident Without Claim for Dany Dubuc-Marquis in which the recall condition may have caused or contributed to airbag non-deployment in a frontal-impact crash. We previously submitted information to you related to

this Incident Without Claim on April 3, 2014. See  
GMNHTSA000293110 - GMNHTSA000293764.

- Please note that these files do not include full metadata because certain documents or pages have been withheld as privileged, and the metadata may contain certain documents or pages have been withheld as privileged information. The production does include: (a) full OCR text of all non-privileged text in the files; and (b) metadata as to the document custodian and document parent/child relationship. Please let us know if you would like the additional metadata, which we can then process following a review.

2) *Melton* NISM materials

- Bates range: GMNHTSA000292984 - GMNHTSA000293109
- Today's submission includes the NISM file that preceded the *Melton* litigation. We previously submitted information related to the *Melton* litigation on March 27, March 28, March 31 and April 3, 2014.

GM's production today is contained on discs bearing the following Bates range: GMNHTSA000292899 - GMNHTSA000293764.

The encryption key for the discs is 4EFA36DA2B5BE539090CE.

As you know, GM is conducting a comprehensive internal investigation of the facts relating to the recall which is the subject of the Special Order. GM will supplement its responses to NHTSA as the internal investigation progresses.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
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April 17, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") sixteenth interim, partial response to the Special Order dated March 4, 2014.

Enclosed are copies of the following documents which are responsive to the Special Order and documents that will be submitted to the House Energy and Commerce Committee:

**1) Warranty data to be submitted to the House Energy and Commerce Committee**

- GM is submitting warranty data that is responsive to requests from the House Energy and Commerce Committee. This data relates to model years outside the scope of the Special Order. GM provides these documents although they are not responsive to a particular Request in the Special Order. These documents are Bates stamped GMNHTSA000316296 – GMNHTSA000316311.
- GM's production today includes airbag and ignition switch warranty claim data, for the 2008-2010 Cobalt, 2008-2011 Chevy HHR, 2008-2010 Pontiac Solstice, 2008-2010 Pontiac G5, and 2008-2010 Saturn Sky, that mirrors the Bill of Material ("BOM") row and Labor Code search results GM previously produced for the 2003-2007 model year recall population.



O. Kevin Vincent, Esq.

April 17, 2014

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- GM's production also includes warranty claim data for the 2008-2010 Cobalt, 2008-2011 Chevy HHR, 2008-2010 Pontiac Solstice, 2008-2010 Pontiac G5, and 2008-2010 Saturn Sky relating to ignition switch parts, exclusive of the labor codes and BOM row searched.
- Finally, GM is producing warranty data for the 2008-2010 Cobalt, 2008-2011 Chevy HHR, 2008-2010 Pontiac Solstice, 2008-2010 Pontiac G5, and 2008-2010 Saturn Sky that reflects the labor codes dealers have been authorized to use for Product Assistance Claims. These codes are not specific to any given component or product allegation. GM is continuing to evaluate warranty data and will have additional productions of warranty data in the future.
- For the same reasons explained in our letter of March 25, 2014, because of the search methodology that was used to respond to the House Energy and Commerce Committee's broad request, the warranty claims identified in the reports GM is producing do not all reflect the recall condition, and the quantity of claims reflected in the production is substantially greater than the number of claims related to the recall condition.
- Please note that these files do not include full metadata because certain documents or pages have been withheld as privileged, and the metadata may contain certain documents or pages that have been withheld as privileged information. The production does include: (a) full OCR text of all non-privileged text in the files; and (b) metadata as to the document custodian and document parent/child relationship. Please let us know if you would like the additional metadata, which we can then process following a review.

**2) Documents responsive to NHTSA Request Nos. 6, 20, 40, 45, 48, 51, 54, 55, 62, 65, 71, 72, and 101**

- Documents not previously produced that are referenced in GM's Seventeenth Interim Response, dated April 17, 2014, relating to Request Nos. 45, 51, 54, 55, 62, 71, 72, and 101. These documents are Bates stamped GMNHTSA000316137 - GMNHTSA000316295.
- Additional documents that are responsive to Request Nos. 6, 20, 40, 48, and 65. These documents are Bates stamped GMNHTSA000293765 - GMNHTSA000294757 and include the following:

O. Kevin Vincent, Esq.

April 17, 2014

Page 3

- E-mails and attached agendas in 2009 regarding the "Cobalt CPIT Team" and "Cobalt CPIT Weekly Agenda" that include agenda items related to the Problem Resolution Tracking System ("PRTS") #1078137 issued in 2009 and the Engineering Work Order ("EWO") #1070202 regarding the re-design of the key from a slot to a hole. These documents are Bates labeled GMNHTSA000294508-512 and GMNHTSA000294549-563 (Request Nos. 6, 20, 40, and 48).
- PowerPoint presentation slides dated in March and April 2004 related to the Problem Resolution Tracking System ("PRTS") #N15129 regarding the Saturn Ion (GMX357) ignition switch and that resulted in the February 2004 change to improve the switch's performance at cold temperatures. These documents are Bates labeled at GMNHTSA000294030-041 (Request Nos. 6, 20, and 65).

GM's production today is contained on discs bearing the following Bates ranges:

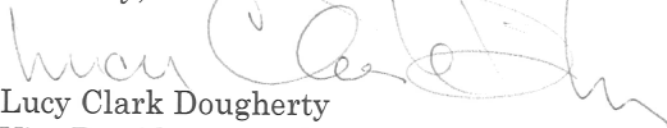
- GMNHTSA000293765 - GMNHTSA000294757
- GMNHTSA000316137 - GMNHTSA000316311

The encryption key for the discs is 4EFA36DA2B5BE539090CE.

GM's search for information and documents responsive to the Special Order is not yet finished and is continuing. GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

  
Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A86  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 17, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") seventeenth interim, partial response to the Special Order dated March 4, 2014 ("Special Order").

Enclosed is GM's response to Special Order Request Nos. 27, 45, 51, 54, 55, 56, 59, 62, 63, 64, 71, 72, 84, 88, 92, 93, 98, and 101. Certain documents referenced in this written response were submitted to NHTSA today, under separate cover, as part of GM's sixteenth interim, partial response to the Special Order.

GM's search for information and documents responsive to the Special Order is not yet finished and is continuing. GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

O. Kevin Vincent, Esq.

April 17, 2014

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Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated

**UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**  
1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

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**In re:** :  
TQ14-001 :  
NHTSA Recall No. 14V-047 :  
:

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**GENERAL MOTORS LLC'S SEVENTEENTH INTERIM, PARTIAL  
RESPONSE TO MARCH 4, 2014 SPECIAL ORDER**

General Motors LLC ("GM") submits this Seventeenth Interim, Partial Response to the Special Order issued by the Secretary of Transportation on March 4, 2014, subject to GM's General Statement Regarding Limitations and Other Qualifications to Its Responses below.

**RESPONSES TO SPECIAL ORDER'S REQUESTS**

**Request No. 27.** According to a press release regarding this recall that GM submitted to NHTSA, GM North America President Alan Batey said that GM's "process employed to examine this phenomenon was not as robust as it should have been." Describe in detail the ways in which GM's process "was not as robust as it should have been" and GM's plans (if any) to change its process.

## RESPONSE

GM is working diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified. Since the recall, GM has announced several actions or initiatives that are designed to improve the process, including:

1. Creating and filling the position of Vice President, Global Vehicle Safety. This officer will have global responsibility for the safety development of GM vehicle systems, confirmation and validation of safety performance, as well as post-sale safety activities, including recalls;
2. Creating the “Speak Up For Safety” program, which will recognize employees for (a) ideas that make vehicles safer, and (b) “speaking up” if they see an issue that might affect customer safety;
3. Broadening the global engineering requirement of Design for Six Sigma (DFSS) certification. This will help the company better understand customer needs, focus on determining the root causes of customer issues, and focus on how to best resolve those issues; and,
4. Announcing the creation of a new Global Product Integrity organization within Global Product Development, which will focus on safety performance.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission.

**Request No. 45.** Provide all documents related to the reasons that GM issued Information Service Bulletin 05-02-35-2007.

**RESPONSE**

GM has previously submitted documents responsive to this request. Today, GM also submits records relating to the Service Bulletin issued in 2005. *See* Bates range GMNHTSA000316245-276. At Bates range GMNHTSA000316264-67 is a Preliminary Information (“PI”) bulletin titled “Engine Stalls, Loss of Electrical Systems and No DTCs (Updated) – keywords DTC driver engine intermittent ignition insert IPC key L61 loss LSJ no phantom power ring stall switch wow #PIC3421C – (Oct 11 2005).” The PI bulletin also lists the following as the “Condition/Concern: The engine may stall while driving intermittently, and some customers may notice the loss of electrical systems.” At Bates range GMNHTSA000316268-71 is a Bulletin Request Form, the second page of which includes the following text: “Complaint: There is a potential for the driver to inadvertently turn off the ignition key due to low key cylinder effort. Customer complaint could be engine stalls, loss of electrical system with no DTCs found.” Copies of the aforementioned PI bulletin also appear within Bates range GMNHTSA000316143-156.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently

and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 51.** Why did GM “update[] the Service Bulletin in October 2006 to include additional vehicles and model years”?

**RESPONSE**

GM has previously submitted a partial response to this Request.

Today, GM also submits records relating to why GM updated the Service Bulletin in October 2006. *See* Bates range GMNHTSA000316277-292.

In addition, during the course of its investigation, GM discovered records from 2007 potentially relevant to Request No. 51. Though Request No. 51 is limited to 2006, GM is voluntarily producing the 2007 records. Accordingly, GM also submits records relating to a Service Bulletin update proposed (but not issued) in 2007. *See* Bates range GMNHTSA000316293-295. At the second page of these records, *see* Bates label GMNHTSA000316294, a document titled “Service Bulletin” bears the following “[s]ubject”: “Information on Inadvertent Turning of Key Cylinder, Loss of Electrical System, Hesitation, Stalls and No DTCs Set.” On the third page of these records, *see* Bates label GMNHTSA000316295, the following text appears: “Important: If concern is still present after the repair is complete, replace the ignition switch.” Also on the third page of these records, the “Corporate



Coordinator Feedback” reads as follows: “Bulletin rejected per Product Investigations – 4/10/07.”

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 54.** Why did GM consider updating the Service Bulletin in July 2011?

**RESPONSE**

GM has previously submitted documents responsive to this request.

On April 10, 2014, GM submitted records that contain references to a potential update of the Service Bulletin in July 2011, which covered the same models and model years as the update in October 2006. *See* Bates range GMNHTSA000282632-645. Today, GM submits further records that include documents titled “Service Bulletin” dated July 2011. *See* Bates ranges GMNHTSA000316166, GMNHTSA000316137-38, GMNHTSA000316143-156, and GMNHTSA000316158-163. At the present time, GM’s investigation has not determined whether or why GM considered updating the Service Bulletin in July 2011. As stated in the chronology submitted to NHTSA on February 24, 2014,

“GM’s records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. However, upon investigation, GM believes that the Service Bulletin was not updated in July 2011.”

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 55.** Why did GM decide not to update the Service Bulletin in July 2011?

**RESPONSE**

GM has previously submitted documents responsive to this request.

On April 10, 2014, GM submitted records that contain references to a potential update of the Service Bulletin in July 2011, which covered the same models and model years as the update in October 2006. *See* Bates range GMNHTSA000282632-645. Today, GM submits further records that include documents titled “Service Bulletin” dated July 2011. *See* Bates ranges GMNHTSA000316166, GMNHTSA000316137-38, GMNHTSA000316143-156, and GMNHTSA000316158-163. At the present time, GM’s investigation has not

determined whether or why GM decided not to update the Service Bulletin in July 2011. As stated in the chronology submitted to NHTSA on February 24, 2014, “GM’s records contain references to a second update of the Service Bulletin in July 2011, which covered the same models and model years as the first update in October 2006. However, upon investigation, GM believes that the Service Bulletin was not updated in July 2011.”

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 56.** Identify all individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.

### **RESPONSE**

The investigation to date has not yet identified individuals involved with consideration of whether or not to update the Service Bulletin in July 2011.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 59.** Why did a GM design engineer approve changes to the ignition switch on April 26, 2006?

**RESPONSE**

GM has previously produced documents responsive to this request.

GM is submitting a document entitled General Motors Commodity Validation Sign-Off (dated April 26, 2006) (GMNHTSA000002898). The document references: 1) replacing the PCB to “correct timings adjust[s] as Customer required”; and 2) replacing the former detent spring and plunger with the Catera detent spring and plunger to “increase torque force in the switch.”

In addition, on April 3, 2014, GM produced certain documents from Delphi, which are related to the ignition switch installed in vehicles subject to the recall announced on February 7, 2014. See Bates ranges GMNHTSA000258201-04, GMNHTSA000257777-78, GMNHTSA000257936-39, GMNHTSA000257941, GMNHTSA000257857-59, GMNHTSA000257870-72, and GMNHTSA000257860.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive this request and will supplement this response with such information as it is identified.

**Request No. 62.** Describe the role, if any, the GM design engineer who approved changes to the ignition switch on April 26, 2006 had in GM's investigation of airbag nondeployments in any of the recalled vehicles.

**RESPONSE**

GM has previously submitted documents responsive to this request. Based on our investigation to date, the GM Design Release Engineer was consulted by other GM employees during the investigation of airbag non-deployments.

In October and November 2010, the Design Release Engineer exchanged correspondence with another GM employee regarding 2003-2007 MY Saturn Ion ignition switch background information and part number changes. *See* Bates ranges GMNHTSA000259172 and GMNHTSA000265913.

In May 2012, the Design Release Engineer was copied on correspondence regarding torque testing on Cobalt ignition switches at a salvage yard. *See* Bates ranges GMNHTSA000221107-9, GMNHTSA000221110-1, GMNHTSA000221112-8, GMNHTSA000288221-22, GMNHTSA000221125-26, GMNHTSA000282695-97, and GMNHTSA000316139-41.

In June 2012, the Design Release Engineer exchanged correspondence with another GM employee regarding the history of the Cobalt ignition switch, including a review of a spreadsheet of part changes to the ignition switch. *See* Bates range GMNHTSA000250057-61.

On October 5, 2012, the Design Release Engineer exchanged correspondence with another GM employee regarding an estimate of the cost of creating a new

ignition switch to increase the effort to turn the key from “Run” to “Accessory.” *See* Bates range GMNHTSA000221236-8.

In addition, the Design Release Engineer was copied on electronic invitations for several meetings where ignition switch changes appear to have been a topic to be discussed. *See* Bates range GMNHTSA000316164-65 (February 3, 2012 meeting invite re GMX001 ignition switch); GMNHTSA000221164-65 (August 27, 2012 meeting invite re a review of a 2006 Cobalt crash); GMNHTSA000282954-55 (December 4, 2012 meeting invite re a review of potential changes to the 2005-7 Cobalt steering column and ignition switch); GMNHTSA000221393-4, GMNHTSA000274234-5, and GMNHTSA000274236-7 (January 8, 2013 meeting invite re follow-up to December 4, 2012). It is unclear from these documents whether the Design Release Engineer attended some or all of these meetings.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 63.** Did GM approve any change to the ignition switch prior to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

**RESPONSE**

GM has previously produced documents responsive to this request. On March 31, 2014, GM produced copies of the engineering work orders referenced below. This response does not address any changes to the ignition switch that were reflected in the General Motors Commodity Validation Sign-Off (dated April 26, 2006) (GMNHTSA000002898).

The ignition switch (part number 12450250) was changed pursuant to Engineering Work Order #302726 (GMNHTSA000220667-681), initiated on February 19, 2004. The work order states: "Release a modified ignition switch design part number 10392423 for production to improve switch performance at cold temperatures." The changes to the ignition switch included: "New grease (NS-1304; Lower Contact Force; New PCB – FR4 Board)." This work order applied to the ignition switch used in production Saturn Ion vehicles (GMX357). In addition, this work order cancelled part number 12450250 and established part number 10392423. This work order was closed on September 14, 2004. GM, through Engineering Work Order #333314 (GMNHTSA000220697-712) initiated on April 19, 2004, applied these changes to the Chevrolet Cobalt (GMX001). This work order was closed on April 6, 2005.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 64.** Did GM approve any change to the ignition switch subsequent to April 26, 2006? If so, provide the date of the change, describe the change, and state the reasons that the change was made.

**RESPONSE**

GM has previously produced documents responsive to this request. On April 3, 2014, GM produced copies of the engineering work orders referenced below. This response does not address any changes to the ignition switch that were reflected in the General Motors Commodity Validation Sign-Off (dated April 26, 2006) (GMNHTSA000002898).

The ignition switch (part number 10392423) was changed pursuant to Engineering Work Order #573556 (GMNHTSA000258049-059), initiated on October 12, 2005. The work order states: "revise OFF/RUN/CRANK circuit to include 1.3 K ohm resistor; 1% tolerance; ¼ watt; revise art work on PCB i.e. move VIAs, increase trace width." This work order applied to the ignition switch for production in the Chevrolet Cobalt (GMX001), Pontiac Solstice (GMX020), Saturn Sky (GMX023), and Chevrolet HHR (GMT001). In addition, this work order cancelled part number



10392423 and established part number 15886190. This work order was closed on June 12, 2006.

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 71.** Did GM implement the key change following the February 2009 PRTS in any model other than the Cobalt? If yes, state each model to which the key change applied (including the model year for which the key change was first implemented). If no, state the reasons that GM did not implement the key change in any model other than the Cobalt.

**RESPONSE**

GM is producing today a copy of Work Order #1070202. See Bates range GMNHTSA000316167-6220. Work Order #1070202 was initiated on December 12, 2008, to change the "key ring opening on [the] key from a slot to a hole." In addition to the Cobalt, the Work Order applies to the Chevrolet HHR (GMT001), Saturn Sky (GMX023), and Pontiac Solstice (GMX020), model year 2009.

GM is also producing today a copy of Work Order #1229921. See Bates range GMNHTSA000316221-244. Work Order #1229921 was initiated on January 18, 2010, to "change [the] key ring opening on Cadillac Key from a slot to a hole." The Work Order applies to Cadillac CTS Sedan (GMX322), Cadillac CTS Coupe

(GMX226), and Cadillac CTS Wagon (GMX206), model year 2011. *See also* Bates range GMNHTSA000221035-37 (e-mail chain discussing Work Orders #1070202 and #1229921).

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 72.** Did the key change implemented following the February 2009 PRTS differ from the key change proposed in 2005? If yes, identify each difference and state whether and how the difference(s) were relevant to preventing accidental ignition shut-off.

**RESPONSE**

GM has previously produced documents responsive to this Request, including: (1) a copy of Work Order #521309, which was initiated on June 9, 2005, to modify the "key profile from a slot which captures the key ring to a hole" in order to "assist in eliminating the inadvertent ignition turn off noted on some Cobalt vehicles" (GMNHTSA000278277-292); (2) a copy of Work Order #574533, which was initiated on October 13, 2005, to modify the "key profile from a slot which captures the key ring to a hole" in Saturn Ion vehicles (GMNHTSA000278294-8297); (3) a copy of PRTS No. 1078137, which states: "Change key opening from a slot to a hole to eliminate accidental ignition shut off" (GMNHTSA000273715); (4) a

copy of PRTS No. N182276, which states: "Slot in key head to be modified to a hole. A smaller key ring (13mm dia) will also be used to assist in limiting the problem" (GMNHTSA000220543-569); and (5) a copy of a presentation, which describes a production plan to: "Fill In Key Slot & Add 3.5mm Hole and use . . . 13mm ring" (GMNHTSA000271499).

GM is producing today a copy of Work Order #1070202. *See* Bates range GMNHTSA000316167-220. Work Order #1070202 was initiated on December 12, 2008, to change the "key ring opening on [the] key from a slot to a hole." GM is also producing today a copy of Work Order #1229921 *See* Bates range GMNHTSA000316221-244. Work Order #1229921 was initiated on January 18, 2010, to "change [the] key ring opening on Cadillac Key from a slot to a hole."

GM's response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 84.** On what date did GM initiate a study using the "Red X" problem-solving methodology to "better understand[] the differences in observed torque performance"?

**RESPONSE**

GM has previously produced documents responsive to this request. On March 27, 2014, GM produced a copy of the communications referenced in this

response. GM has identified e-mail communications between a Field Performance Engineer and a Red X engineer requesting the initiation of a study using “Red X” problem-solving methodology on September 9, 2012. See Bates range GMNHTSA000135996-98.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 88.** On what date did GM initiate a study using the “Design for Six Sigma” problem-solving methodology to “better understand[] the differences in observed torque performance”?

**RESPONSE**

On March 25, 2014, and April 8, 2014, GM produced documents responsive to this request. See Bates ranges GMNHTSA000002693-703 and GMNHTSA000274234-35.

These documents include an e-mail communication relating to a study using the “Design for Six Sigma” problem-solving methodology. See Bates range GMNHTSA000274234-35. This e-mail message was sent by the Field Performance Assessment Engineer assigned in August 2011 to move forward with a Field Performance Evaluation investigation of a group of crashes in which airbags in 2005-2007 model year Chevrolet Cobalts and a 2007 Pontiac G5 had not deployed

during frontal impacts. This e-mail message bears a “sent date” of “2012-12-14” and references a meeting on “2013-01-08” and a “12/4/12 brainstorming session.”

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 92.** How did the Field Performance Assessment Engineer learn, in late April 2013, “that the torque performance of a GM service part ignition switch purchased after 2010 differed substantially from that of an ignition switch that was original equipment installed on a 2005 Cobalt”? Provide all related documents.

#### **RESPONSE**

The Field Performance Assessment Engineer provided deposition testimony in *Melton v. General Motors* relevant to how he learned that the torque performance of a GM service part ignition switch purchased after 2010 differed from that of an ignition switch that was original equipment installed on a 2005 Cobalt. See Bates range GMNHTSA000146686-6815, at 6712-6713.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 93.** Provide all documents related to the statement that the Field Performance Assessment Engineer “also learned that others had observed and documented that the detent plunger and spring used on the service part switch differed from those used on the original equipment switch installed on the 2005 Cobalt.”

**RESPONSE**

The Field Performance Assessment Engineer gave deposition testimony in *Melton v. General Motors* regarding the fact that he received information from a GM attorney about a service part switch. See Bates range GMNHTSA000146686-6815, at 6710.

GM has previously produced documents responsive to this request. On March 31, 2014, GM produced a December 3, 2013 e-mail with the subject heading “Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” attaching documents “Change Approval Longer Spring & Plunger 57128dat.doc” and “Ignition Switch Torque Requirements.pptx.” See Bates range GMNHTSA000223512-523.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 98.** Describe the “[t]esting and analysis” that “further determined that whether a key moves from the ‘run’ to ‘accessory’ position and how that key movement affects airbag deployment depends on a number of factors,” including the date(s) that the “[t]esting and analysis” was initiated and concluded, and provide all documents related to that “[t]esting and analysis.”

**RESPONSE**

GM has previously produced documents responsive to this request. On March 5, 2014, GM produced copies of PowerPoint presentations that were provided to the EFADC in December 2013 and January 2014.

On April 10, 2014, GM produced responsive documents to NHTSA, including the following: (1) a spreadsheet regarding May 2012 ignition switch field testing (GMNHTSA000283936); 2) e-mail discussions in 2012 and 2013 between FPE investigators and GM engineers relating to mechanical solutions for the ignition switch (GMNHTSA000282943-45, GMNHTSA000282946-949, and GMNHTSA000282954-55); (3) an e-mail regarding a 2013 discussion between an FPE investigator and GM engineer regarding added switch capacity for the Cobalt (GMNHTSA000283474); and (4) a 2013 PowerPoint presentation regarding mechanical solutions and ignition switch review (GMNHTSA000282956-57).

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.

**Request No. 101.** Did the FPERC request further analysis? If so, describe the further analysis it requested, the reasons for the request, and provide all related documents.

**RESPONSE**

GM has previously produced documents responsive to this request. On March 31, 2014, GM produced the following documents: (1) a December 3, 2013 e-mail with the subject heading “Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” attaching documents “Change Approval Longer Spring & Plunger 57128dat.doc” and “Ignition Switch Torque Requirements.pptx” (GMNHTSA000223512-523); (2) a December 6, 2013 e-mail with the subject heading “FW: Request for PPAP & Quality Plan Data for Chevrolet Cobalt Ignition Switch P/N 10392423” (GMNHTSA000223653-660); and (3) a December 10, 2013 e-mail with the subject heading “FW: Request for Information Chevrolet Cobalt Ignition Switch P/N 10392423” (GMNHTSA000223779-787).

Today, GM is producing the following additional responsive document: an e-mail dated December 6, 2013, with the subject heading “Cobalt and GMT900 Airbag Reviews.” See Bates label GMNHTSA000316157.

GM’s response to this request is based on information collected, reviewed and analyzed by GM at the time of this submission. GM is continuing to work diligently and expeditiously to identify information responsive to this request and will supplement this response with such information as it is identified.



## **GM'S GENERAL STATEMENT REGARDING LIMITATIONS AND OTHER QUALIFICATIONS TO ITS RESPONSES**

1. The amount of time granted by the NHTSA to respond to the March 4, 2014 Special Order is insufficient under the circumstances. Accordingly, GM's search for information and documents responsive to the March 4, 2014 Special Order's requests is not yet finished. GM is working diligently, expeditiously, and in good faith to finish its response to this Order. GM is still reviewing information and documents to determine whether they are responsive to the March 4, 2014 Special Order's requests. In addition, GM is determining whether any additional personnel have information that may be responsive to the March 4, 2014 Special Order's requests.

2. Because of an insufficient amount of time to respond, GM's Seventeenth Interim, Partial Response is necessarily limited to the information GM has been able to review in the time permitted. GM is continuing to work diligently and expeditiously to identify, locate, and produce the information responsive these requests. Accordingly, this Seventeenth Interim, Partial Response is not intended as an admission or a representation that additional responsive documents and data do not exist. Instead, GM will continue to search for responsive documents and information in the places that such materials are reasonably likely to be located, and will produce all responsive, non-privileged information as it is identified.

3. By these responses, GM does not waive, and reserves all rights as to any applicable privileges, including the attorney-client and work product privileges.

4. GM's Seventeenth Interim, Partial Response is based upon the information it has reviewed to date and reflects its current information and belief. If GM's continuing, diligent, and good faith work to find responsive information results in the discovery of facts or other information that is or are responsive, GM reserves the right to supplement, modify, or amend its Seventeenth Interim, Partial Response.

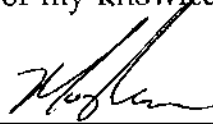
5. With respect to the definition of "GM" as set forth in the March 4, 2014 Special Order, the relationship between GM and General Motors Corporation is defined by the Sale Approval Order issued by the United States Bankruptcy Court on July 5, 2009, and the Amended and Restated Master Sale and Purchase Agreement incorporated therein.

Submitted: April 17, 2014

## CERTIFICATION

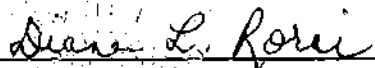
1. I am Executive Vice President of Global Product Development, Purchasing, and Supply Chain for General Motors Company ("GM"). I have been authorized to execute this certification on GM's behalf.
2. After receiving the National Highway Traffic Safety Administration's Special Order dated March 4, 2014 ("Special Order"), GM personnel and outside counsel were directed to perform an expeditious and diligent search of GM's records and data in a manner reasonably calculated to locate information and documents responsive to the requests in the Special Order. This search includes interviewing GM personnel most likely to have information responsive to the Special Order's requests.
3. GM's search for information and documents responsive to the Special Order's requests is not yet finished. Based on the search that has been completed to date, upon information and belief, the written responses contained in the GM's Seventeenth Interim, Partial Response to the Special Order are truthful and accurate.
4. GM is still collecting and reviewing information and documents to determine whether they are responsive to the requests in the Special Order.
5. As GM identifies additional documents or other information responsive to the requests in the Special Order, it will supplement or amend its production and responses in a timely manner.

Based on the search completed to date, I certify under the penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.



\_\_\_\_\_  
Mark Reuss

Subscribed and sworn to before me  
on this 17 day of April, 2014.



**DIANE L. RORAI**  
Notary Public, State of Michigan  
County of Oakland  
My Commission Expires 10-21-2018  
Acting in the County of Macomb



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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*lucy.dougherty@gm.com*

April 18, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") eighteenth interim, partial response to the Special Order dated March 4, 2014.

Enclosed are copies of the following documents which are responsive to the Special Order:

**1) Lawsuits, Not In Suit Matters ("NISM's"), Incidents Without Claims, and customer complaint files**

- Bates range: GMNHTSA000294758 - GMNHTSA000316136
- Today, GM is submitting additional responsive documents related to the list of matters we submitted on April 3, 2014 in response to Request No. 5 of the Special Order in which the recall condition may have caused or contributed to airbag non-deployment in frontal-impact crashes. These additional documents are primarily JPEG images. We previously submitted the underlying files and other related documents for these matters on March 27, April 3, April 11 and April 16, 2014. Attached to this letter, we have provided an index of these documents by GM file number and Bates range that corresponds to the list of matters and GM file numbers submitted on April 3, 2014.

O. Kevin Vincent, Esq.  
April 18, 2014  
Page 2

- GM also is submitting an electronic copy of a Complaint filed in *Rimer, et. al. v. General Motors, et. al.*, on March 20, 2014 in Minnesota State District Court for Hennepin County, related to a frontal impact crash in which the recall condition may have caused or contributed to air bag non-deployment. This relates to an Incident Without Claim file that was previously submitted to NHTSA on March 27, 2014 and that is included on the list of matters provided on April 3, 2014 in response to Request No. 5 of the Special Order. We previously submitted this Complaint as an attachment to our April 11, 2014 letter to NHTSA. This document is Bates stamped GMNHTSA000299290 - GMNHTSA000299311.

## 2) Documents responsive to NHTSA Request Nos. 6, 33, 62 and 87

- Bates range: GMNHTSA000316312 - GMNHTSA000327852
- Enclosed are documents that are responsive to the Special Order, including Request Nos. 6, 33, 62, and 87. Among these responsive documents are:
  - E-mail communications regarding TREAD data from the Technical Assistance Center ("TAC") relating to the Saturn Ion at GMNHTSA000317569 - GMNHTSA000317699 (Request No. 6).
  - E-mail communication and attached files dated June 1, 2007 related to a November 17, 2005 incident. The attachments include a police report, an early technical assessment, and crash data analysis. The documents are Bates stamped GMNHTSA000317197 - GMNHTSA000317214 (Request No. 6).
  - E-mail communications in November 2012 regarding "a potential hardware solution to the Cobalt airbag issue" at GMNHTSA000321243 - GMNHTSA000321244 (Request No. 33).
  - E-mail communications in October 2012 between a GM Design Release Engineer and Field Performance Assessment Engineer regarding the 2005-7 Cobalt airbag investigation at GMNHTSA000320961 - GMNHTSA000320962 (Request No. 62).

O. Kevin Vincent, Esq.  
April 18, 2014  
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- o Meeting invitation with the subject "2005-7 Cobalt Steering Column / Ignition Switch Review 1N16-11 (Blue) & Red X" at GMNHTSA000321784 (Request Nos. 62 and 87).
- o E-mail communication dated October 23, 2012 related to the Red X study at GMNHTSA000321021 - GMNHTSA000321024 (Request No. 87).

GM's production today is contained on one DVD and one hard drive bearing the following Bates ranges:

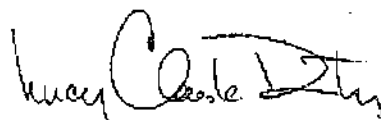
- GMNHTSA000294758 - GMNHTSA000316136
- GMNHTSA000316312 - GMNHTSA000327852

The encryption key for the DVD and hard drive is:  
4EFA36DA2B5BE539090CE.

GM's search for information and documents responsive to the Special Order is not yet finished and is continuing. GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated

Index of Bates range: GMNHTSA000294758 - GMNHTSA000316136

GM File #	NHTSA Bates Range
489548	GMNHTSA000295073 - GMNHTSA000296479
473579	GMNHTSA000294871 - GMNHTSA000295072
641632	GMNHTSA000304316 - GMNHTSA000304713
684028	GMNHTSA000311514 - GMNHTSA000311792
762974	GMNHTSA000315659 - GMNHTSA000315753
639456	GMNHTSA000303577 - GMNHTSA000303710
725103	GMNHTSA000313966 - GMNHTSA000314224
507744	GMNHTSA000296778 - GMNHTSA000297004
684002	GMNHTSA000311133 - GMNHTSA000311513
504880	GMNHTSA000296652 - GMNHTSA000296777
657195	GMNHTSA000306220 - GMNHTSA000306992
691020	GMNHTSA000311836 - GMNHTSA000312304
773867	GMNHTSA000316030 - GMNHTSA000316136
624610	GMNHTSA000299060 - GMNHTSA000299253
653251	GMNHTSA000305551 - GMNHTSA000305746
633669	GMNHTSA000299640 - GMNHTSA000303060
651139	GMNHTSA000304803 - GMNHTSA000305550
638575	GMNHTSA000303411 - GMNHTSA000303576
511258	GMNHTSA000297587 - GMNHTSA000298681
666658	GMNHTSA000307399 - GMNHTSA000308119
660660	GMNHTSA000307328 - GMNHTSA000307398
690196	GMNHTSA000311793 - GMNHTSA000311835
1182698557	GMNHTSA000294790 - GMNHTSA000294870
699630	GMNHTSA000312305 - GMNHTSA000312767
513096	GMNHTSA000298934 - GMNHTSA000299059
682178	GMNHTSA000308736 - GMNHTSA000311132
636480	GMNHTSA000303097 - GMNHTSA000303410
656277	GMNHTSA000305966 - GMNHTSA000306219
677880	GMNHTSA000308728 - GMNHTSA000308735
723188	GMNHTSA000313071 - GMNHTSA000313172
665487504	GMNHTSA000294758 - GMNHTSA000294789
512109	GMNHTSA000298682 - GMNHTSA000298933
729809	GMNHTSA000314501 - GMNHTSA000314703
763152	GMNHTSA000315754 - GMNHTSA000316029
643254	GMNHTSA000304714 - GMNHTSA000304802
747173	GMNHTSA000314704 - GMNHTSA000315189
624620	GMNHTSA000299254 - GMNHTSA000299639
640068	GMNHTSA000303711 - GMNHTSA000304315
501661	GMNHTSA000296480 - GMNHTSA000296651
667271	GMNHTSA000308120 - GMNHTSA000308727
658604	GMNHTSA000306993 - GMNHTSA000307327
723116	GMNHTSA000312768 - GMNHTSA000313070
725541	GMNHTSA000314225 - GMNHTSA000314500
725101	GMNHTSA000313173 - GMNHTSA000313965
511176	GMNHTSA000297111 - GMNHTSA000297586
509836	GMNHTSA000297005 - GMNHTSA000297110

Index of Bates range: GMNHTSA000294758 - GMNHTSA000316136

<b>GM File #</b>	<b>NHTSA Bates Range</b>
751787	GMNHTSA000315190 - GMNHTSA000315658
635109	GMNHTSA000303061 - GMNHTSA000303096
655121	GMNHTSA000305747 - GMNHTSA000305965





Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 21, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") nineteenth interim, partial response to the Special Order dated March 4, 2014.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, 62, 63, and 65. Among these responsive documents are:

- Component Technical Specification Reports for ignition switch part number 12450250, which include torque requirements and sensor column data. These documents are Bates stamped GMNHTSA000327902-942, GMNHTSA000327944-979, and GMNHTSA000328280-81 (Request No. 2).
- Design drawings for ignition switch part number 15886190. These documents are Bates stamped GMNHTSA000328308-311 (Request No. 2).
- Ignition switch warranty data for the 2003-2004 Saturn Ion. These documents are Bates stamped GMNHTSA000328222-253 (Request No. 6).

O. Kevin Vincent, Esq.

April 21, 2014

Page 2

- Ignition switch claims data for the 2005-2006 Chevy Cobalt, 2005 Saturn Ion, 2006 Chevy HHR as of August 15, 2005. This document is Bates stamped GMNHTSA000328288 (Request No. 6).
- Ignition switch claims data for the 2005-2006 Chevy Cobalt, 2005 Saturn Ion, 2006 Chevy HHR as of October 3, 2005. This document is Bates stamped GMNHTSA000328289 (Request No. 6).
- A May 30, 2012 meeting invite sent to the GM Design Engineer and other GM employees regarding "Review of Switch Evaluations at Davision & Next Steps 2M6-21." This document is Bates stamped GMNHTSA000328725. (Request No. 62).
- A November 2012 email exchange where the GM Design Engineer provides the estimated cost and lead time for design of a new ignition switch with increased torque. This document is Bates numbered GMNHTSA000328726 (Request No. 62).
- A June 27, 2006 meeting invite that includes the GM Design Engineer and Delphi employees regarding "Delta/GMX001 & GMX002 Design review and implementation." This document is Bates stamped GMNHTSA000328312 (Request No. 63 and 65).

GM's production today is contained on three DVDs bearing the following Bates ranges:

- GMNHTSA000327853 - GMNHTSA000328757
- GMNHTSA000328758 - GMNHTSA000329806
- GMNHTSA100039307 - GMNHTSA100039390

The encryption key for the DVD and hard drive is:  
4EFA36DA2B5BE539090CE.

GM's search for information and documents responsive to the Special Order is not yet finished and is continuing. GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

O. Kevin Vincent, Esq.

April 21, 2014

Page 3

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 22, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twentieth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of the following documents which are responsive to the Special Order:

**1) Design Failure Mode and Effects Analysis and Design Review Based on Failure Modes**

- In response to this request, GM has identified 148 relevant or potentially relevant Design Failure Mode and Effects Analyses (DFMEAs) and Design Review Based on Failure Modes (DRBFMs). DFMEAs relate to review and analysis conducted on new parts, while DRBFMs involve review, analysis and evaluation of modifications to existing parts. These materials can be found at Bates range GMNHTSA100039391 - GMNHTSA100039659.
- Please note that there are two files within this Bates range (one Microsoft Word document and one Microsoft Excel spreadsheet) that do not contain any data or information. The metadata for these files contains information suggesting that these files relate to potentially relevant DRBFMs also included in today's production. The Bates

O. Kevin Vincent, Esq.  
 April 22, 2014  
 Page 2

numbers and file names for these two documents are as follows: 1)  
 GMNHTSA100039568 - IP HARNESS DRBFM.doc and 2)  
 GMNHTSA100039569 - IP HARNESS DRBFM.xls.

**2) Documents responsive to NHTSA Request Nos. 31, 33, 63, 65, 101, 104, and 105**

- E-mail correspondence regarding Cobalt vehicle testing in 2004 at GMNHTSA000329908-09 (Request No. 31).
- E-mail exchange dated December 12, 2013 discussing remedies for the 2005-07 Cobalt, G5, and Pursuit at GMNHTSA000334284 (Request No. 33).
- E-mails regarding changes to the ignition switch prior to April 26, 2006 at GMNHTSA000329876-877 and GMNHTSA000329895 (Request Nos. 63 and 65).
- E-mail, charts, and PowerPoint presentation slides related to changes to the ignition switch prior to April 26, 2006 at GMNHTSA000330379, GMNHTSA000330380-387, GMNHTSA000330391-394, GMNHTSA000330400-403 (Request Nos. 63 and 65).
- E-mail dated December 12, 2013 with the subject "Cobalt and GMT900 Airbag Reviews" at GMNHTSA000334257 (Request No. 101).
- E-mail exchange with the subject "EFADC Cobalt Front Airbag" at GMNHTSA000334280 (Request No. 104).
- Agenda for January 31, 2014 EFADC decision panel at GMNHTSA000334409-410 (Request No. 105).

GM's production today is contained on one DVD bearing the following Bates ranges:

- GMNHTSA100039391 - GMNHTSA100039659
- GMNHTSA000329807 - GMNHTSA000337095

The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

O. Kevin Vincent, Esq.  
April 22, 2014  
Page 3

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lucy Clark Dougherty". The signature is written in black ink and is positioned above the typed name.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

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Mail Code: 482-C25-A36  
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Detroit, MI 48265-3000  
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*lucy.dougherty@gm.com*

April 23, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-first interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, 19, 20, 40, 54, 106 and 107. These documents include:

- E-mail communications dated November 29, 2001, with the subject "Status Update of GMX 001 Steering Column Design" at GMNHTSA000337105-06 (Request No. 2).
- E-mail communication dated February 21, 2014, with the subject "New Ignition Torque / Displacement curve" at GMNHTSA000376097-98 (Request No. 2).
- Crash investigation report for a 2008 crash of a model year 2006 Chevrolet Cobalt at GMNHTSA000338160-170 (Request No. 6).
- Early Technical Assessment System Data Sheets relating to a crash involving a model year 2005 Chevrolet Cobalt at GMNHTSA000341614-16 and GMNHTSA000341631-33 (Request No. 6).

O. Kevin Vincent, Esq.

April 23, 2014

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- PRTS report #2648 related to the Saturn Ion at GMNHTSA100039663-675 (Request Nos. 19 and 20).
- FPR report #0793/2005/US regarding model year 2005 Chevrolet Cobalt ignition switch at GMNHTSA100039849-857 (Request Nos. 19 and 20).
- Microsoft PowerPoint slide titled "Cobalt Ignition System Recommendations Updated 26FE09" at GMNHTSA000338374 (Request No. 40).
- Documents relating to a potential update of Service Bulletin 05-02-35-007A in July 2011 at GMNHTSA000342743-44, GMNHTSA000342745-750, GMNHTSA000342753, GMNHTSA000342754-55, GMNHTSA000373438, GMNHTSA000373439-440, GMNHTSA000377551, and GMNHTSA000377552-565 (Request No. 54).
- Electronic meeting invitation for a December 17, 2013 meeting with the subject "EFADC Decision Panel." The contents of the invitation includes an agenda stating that the "2005-2007 Cobalt Ignition Switch" is the "issue" for the meeting. This document is Bates stamped GMNHTSA100040198-99 (Request No. 106).
- Electronic meeting invitation for a January 31, 2014 meeting with the subject line "CONFIRMED EFADC DECISION PANEL." The contents of the invitation includes an agenda stating that the "2005-2007 Cobalt Ignition Switch" is the "issue" for the meeting. This document is Bates stamped GMNHTSA100040204-05 (Request No. 107).

Copies of one document are being submitted to you in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding analysis and evaluation of GM's future designs and design strategies. This document is submitted on discs that bear the Bates range GMNHTSA000377712 - GMNHTSA000377781. One DVD includes the redacted version of the document and one DVD includes the unredacted version.

GM's production today is contained two DVDs and two thumb drives bearing the following Bates ranges:

- GMNHTSA000337096 - GMNHTSA000377711
- GMNHTSA000377712 - GMNHTSA000377781



O. Kevin Vincent, Esq.

April 23, 2014

Page 3

- GMNHTSA100039660 - GMNHTSA100040288
- GMNHTSA300000000 - GMNHTSA300000001

The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

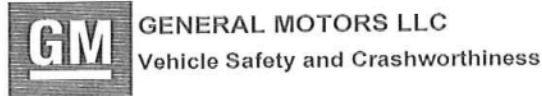
Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with the first name "Lucy" being the most prominent.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



April 23, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Twenty-First Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") twenty-first interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA000377712 - GMNHTSA000377781. The label of one of these discs also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request 81 of the Special Order. (Please note that this document is identical to one submitted on March 27, 2014, bearing Bates range GMNHTSA000218055 - GMNHTSA000218119, and another submitted on April 3, 2014, bearing Bates range GMNHTSA000248011 - GMNHTSA000248069, and that a confidentiality request for those documents was also submitted on those same dates.)

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000377712 - GMNHTSA000377770	Analysis and evaluation of GM's future designs and design strategies.

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disc label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

Letter to O. Kevin Vincent  
14V047 Request  
April 23, 2014  
Page 3 of 4

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with the first name "M." and last name "Benavides" clearly distinguishable.

M. Carmen Benavides, Director  
Product Investigations and Safety Regulations

Enclosure: As stated

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Field Product Investigations and Evaluations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated April 23, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 23<sup>rd</sup> day of April 2014.



M. Carmen Benavides, Director  
Field Product Investigations and Evaluations



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 24, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-second interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 16, 40, 65, 81, 83, 106 and 107. These documents include:

- E-mail communication dated August 18, 2008, with the subject "Weekly Electrical Warranty Information Reports" and attached Microsoft Excel spreadsheets listing "daily [u]npaid claims for this week and the [a]verage daily claims for the previous 6 weeks," at GMNHTSA000377821 - GMNHTSA000377827 (Request No. 16).
- E-mail communication dated April 9, 2009, with the subject "Weekly Electrical Warranty Information Reports" and attached Microsoft Excel spreadsheet entitled "Electrical Other – MY 2009 – Claims by Payment Week" listing "Number [of] Claims Paid by Week of Claim Payment" through the week of April 13, 2009 related to model year 2008 and 2009 Chevrolet Cobalt and HHR vehicles, and model year 2008 and 2009 Pontiac G5 vehicles, at GMNHTSA000378468 - GMNHTSA000378535 (Request No. 16).

O. Kevin Vincent, Esq.

April 24, 2014

Page 2

- E-mail communication dated October 20, 2008, with the subject “Warranty on ignition system” and attachments, including a Microsoft PowerPoint presentation dated October 20, 2008 and entitled “Cobalt Warranty reduction,” regarding ignition cylinder design changes and “Solutions to Decrease Cobalt E700 Warranty,” at GMNHTSA000377828 - GMNHTSA000377838 (Request No. 16).
- E-mail communication dated March 24, 2009, with the subject “Re: X001, T001 Steeting [sic] Column Lock Bolt,” and attachments, including a Microsoft Excel spreadsheet regarding potential changes to the ignition switch, ignition cylinder, and steering column, including changes to the ignition switch to increase detent force and changing the key from a slot to a hole design, at GMNHTSA000378423 - GMNHTSA000378467 (Request Nos. 40 and 83).
- E-mail communication dated February 29, 2002, with the subject “Re: increased detent force” discussing detent force analysis and testing, at GMNHTSA500000000 - GMNHTSA500000002 (Request No. 65).
- E-mail communication dated February 22, 2014, with the subject “Print JM” attaching a chart entitled “Reports – Potential Key Rotation – U.S. Only” regarding “Airbag Non-Deploy Incidents” for model year 2005 through 2007 Chevrolet Cobalt vehicles; model year 2005 Pontiac G5 vehicles; model year 2006 and 2007 Chevrolet HHR vehicles; model year 2003 through 2007 Saturn Ion vehicles; model year 2006 and 2007 Pontiac Solstice vehicles and model year 2006 and 2007 Saturn Sky vehicles, at GMNHTSA000380664 (Request No. 81).
- Microsoft PowerPoint presentation, with attachments, entitled “2005-7 Cobalt, G5, Pursuit, 2003-2007 Ion, 2006-2007 HHR.” One slide in this document states: “[a] review of selected Cobalt & G5 frontal crash events indicates some airbag non deploys have occurred where the ignition switch was in accessory or off,” at GMNHTSA000379845 - GMNHTSA000379874 (Request No. 81).
- Microsoft Excel spreadsheet listing work orders related to the GMX001 ignition switch, at GMNHTSA000379768 (Request No. 83).
- E-mail communication dated March 3, 2014, with the subject “FW: EFADC Meetings UPDATED” regarding the December 17, 2013 and January 31, 2014 EFADC meetings and attachments, including

O. Kevin Vincent, Esq.  
April 24, 2014  
Page 3

Microsoft PowerPoint presentations, at GMNHTSA000380863 -  
GMNHTSA000380932 (Request Nos. 106 and 107).

GM's production today is contained one DVD bearing the following Bates ranges:

- GMNHTSA000377782 - GMNHTSA000381281
- GMNHTSA500000000 - GMNHTSA500000002

The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is written in a cursive style with a large initial "L" and "C".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated





Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 25, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-third interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 6, 65, 67, 69 and 87. These documents include:

- "Early Technical Assessment System Data Sheet" related to November 17, 2005 incident in which airbags did not deploy, at GMNHTSA000398643-49 (Request No. 6).
- Microsoft Excel spreadsheet entitled "GMX357 Field Events – JA 2013," regarding incidents of frontal impacts in which the airbags did not deploy, at GMNHTSA000393127 (Request Nos. 6 and 69).
- Microsoft Excel spreadsheet with a created date of February 3, 2014, regarding incidents of frontal impacts in which the airbags did not deploy, at GMNHTSA000398112 (Request Nos. 6 and 69).
- Engineering Work Order #302726, "releas[ing] ... a modified ignition switch design part number 10392423" to "improve switch performance at cold temperatures," at GMNHTSA000381321-335 (Request No. 65).

O. Kevin Vincent, Esq.

April 25, 2014

Page 2

- Document on Delphi letterhead titled "Proposed PCB Layout," at GMNHTSA000381520 (Request No. 65).
- Microsoft PowerPoint presentation titled "GM Technical Training – Frontal Airbag Sensing – March 29, 2007," at GMNHTSA500000003-046 (Request No. 67).
- Microsoft PowerPoint presentation titled "2007 VS 2008 Cobalt Vehicles: Unintentional Key Rotation - (FPE Project)" regarding the Red X review, at GMNHTSA000398552-56 (Request No. 87).

Copies of one document have been submitted to you in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding analysis and evaluation of GM's future designs and design strategies. This document is submitted on discs that bear the Bates range GMNHTSA000399071 - GMNHTSA000399140. One DVD includes the redacted version of the document and one DVD includes the unredacted version.

GM's production today is contained on three DVDs bearing the following Bates ranges:

- GMNHTSA000381282 - GMNHTSA000399140
- GMNHTSA000406696 - GMNHTSA000406709
- GMNHTSA100040289 - GMNHTSA100047743
- GMNHTSA200001895 - GMNHTSA200002828
- GMNHTSA300000002 - GMNHTSA300000183
- GMNHTSA500000003 - GMNHTSA500000046

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

O. Kevin Vincent, Esq.  
April 25, 2014  
Page 3

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with the first name "Lucy" being the most prominent.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



GENERAL MOTORS LLC  
Global Vehicle Safety

April 25, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Twenty-Third Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") twenty-third interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA000399071 - GMNHTSA000399140. The label of one of these discs also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request 81 of the Special Order. (Please note that this document is identical to one submitted on March 27, 2014, bearing Bates range GMNHTSA000218055 - GMNHTSA000218119; one submitted on April 3, 2014, bearing Bates range GMNHTSA000248011 - GMNHTSA000248069; and another submitted on April 23, 2014, bearing Bates range GMNHTSA000377712 - GMNHTSA000377781, and that a confidentiality request for those documents was also submitted on those same dates.)

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 April 25, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000399071 - GMNHTSA000399129	Analysis and evaluation of GM's future designs and design strategies.

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

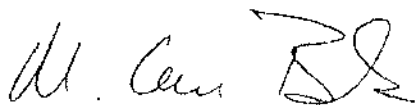
The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disc label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

Letter to O. Kevin Vincent  
14V047 Request  
April 25, 2014  
Page 3 of 4

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with a large, stylized initial "M" and "C".

M. Carmen Benavides, Director  
Field Product Investigations and Evaluations

Enclosure: As stated

Letter to O. Kevin Vincent  
14V047 Request  
April 25, 2014  
Page 4 of 4

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Field Product Investigations and Evaluations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated April 25, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 25<sup>th</sup> day of April 2014.



M. Carmen Benavides, Director  
Field Product Investigations and Evaluations



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 28, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-fourth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 6, 20, 40, 48, 69 and 83. These documents include:

- E-mail communication dated March 10, 2005, regarding a field test of a Chevrolet Cobalt where the "[f]ob has levered around the steering column cover and turned the ignition off," at GMNHTSA000407239-240 (Request No. 6).
- "Early Technical Assessment System Data Sheet" related to a February 24, 2006 incident involving a model year 2005 Chevrolet Cobalt in which the airbags did not deploy, at GMNHTSA000408032-33 (Request No. 6).
- E-mail communication dated June 3, 2008, regarding a Field Performance Assessment report with the file name "Cobalt Airbag Cases.pdf" related to model year 2005-2008 Chevrolet Cobalts and instances of airbag non-deployment, at GMNHTSA000408466-476 (Request Nos. 6 and 69).



O. Kevin Vincent, Esq.

April 28, 2014

Page 2

- Microsoft Excel spreadsheet entitled “GMX Field Events – SE 2012.xlsx,” regarding incidents of frontal impacts in which airbags did not deploy, at GMNHTSA000411842 (Request Nos. 6 and 69).
- Microsoft PowerPoint presentation entitled “X001 Ignition Cylinder Effort...Next Actions” relating to PRTS #182276 and potential changes to the ignition key, at GMNHTSA000407283-290 (Request Nos. 20, 40, 48).
- E-mail communication dated March 26, 2009, with the subject “Re: Cobalt key plug” and discussing that “[b]rand quality...ha[s] just bought off on using the round key hole to superceed [sic] the round hole key plug for slotted hole keys. This will eliminate the need for SdM [sic] to invest in tooling for the plug,” at GMNHTSA000409645 (Request No. 40).
- A Crash Data Retrieval report from a model year 2005 Chevrolet Cobalt related to a February 10, 2006 incident in which airbags did not deploy, at GMNHTSA000410319-328 (Request No. 69).
- Microsoft Excel spreadsheet reflecting ignition switch testing and analysis conducted in May 2012, at GMNHTSA000411397 (Request No. 83).

GM’s production today is contained on one DVD bearing the following Bates ranges:

- GMNHTSA000406710 - GMNHTSA000412928
- GMNHTSA200003466 - GMNHTSA200003470
- GMNHTSA100091160 - GMNHTSA100091194

The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

O. Kevin Vincent, Esq.

April 28, 2014

Page 3

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and a distinct "D" at the end.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



April 28, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Sixth Interim, Partial Response to Special Order dated April 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") sixth interim, partial response to the Special Order dated April 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA100091110 - GMNHTSA100091159. The label of one of these discs also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request 1 of the Special Order.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 April 28, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA100091114 – GMNHTSA100091122	Analysis and evaluation of GM's future designs and design strategies.
GMNHTSA100091126 – GMNHTSA100091134	
GMNHTSA100091138 – GMNHTSA100091146	
GMNHTSA100091150 – GMNHTSA100091158	

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

Letter to O. Kevin Vincent  
14V047 Request  
April 28, 2014  
Page 3 of 4

The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disc label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with the first name "M." and last name "Benavides" clearly distinguishable.

M. Carmen Benavides, Director  
Field Product Investigations & Evaluations

Enclosure: As stated

Letter to O. Kevin Vincent  
14V047 Request  
April 28, 2014  
Page 4 of 4

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Field Product Investigations and Evaluations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated April 28, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 28<sup>th</sup> day of April 2014.



M. Carmen Benavides, Director  
Field Product Investigations and Evaluations



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 29, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-fifth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, 23 and 25. These documents include:

- Document titled "General Motors Corporation Statement of Requirements and Supplemental Terms and Conditions for the Column Mounted Low Current Ignition Switch Part Number 12450250," at GMNHTSA000418737-792 (Request No. 2).
- Diagram and specifications for part number 10392423 titled "10392423\_001\_GM\_DELTA\_357\_IGNITION\_SWITCH," at GMNHTSA000415756-758 (Request No. 2).
- E-mail communication dated February 27, 2014, regarding two CALSPAN reports prepared for NHTSA related to two incidents, in 2005 and 2009 respectively, involving two model year 2005 Chevrolet Cobalts in which the airbags did not deploy, at GMNHTSA000419311-374 (Request No. 6).

O. Kevin Vincent, Esq.

April 29, 2014

Page 2

- Document titled "Design FMEA / Design Review Based on Failure Modes (DRBFM)" for model year 2006 Chevrolet HHR, at GMNHTSA000418628-670 (Request No. 23).
- Electronic meeting invitation dated December 17, 2013, with the subject "EFADC Decision Panel," regarding the "2005-2007 Cobalt Ignition Switch," at GMNHTSA000419174-75 (Request No. 25).
- E-mail communication dated December 17, 2013, with the subject "RE: URGENT - 2005-2007 Cobalt, Pursuit and G5 - Front Airbag Non-Deployment," at GMNHTSA000413676 (Request No. 25).

GM's production today is contained on one DVD bearing the following Bates ranges:

- GMNHTSA000413841 - GMNHTSA000419541
- GMNHTSA000412991 - GMNHTSA000413840
- GMNHTSA100091195 - GMNHTSA100091271
- GMNHTSA200003471 - GMNHTSA200003554
- GMNHTSA300001871 - GMNHTSA300001897

The encryption key for the DVD is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated





Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

April 30, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-sixth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

**1) Warranty data to be submitted to the House Energy and Commerce Committee**

- In response to requests from the House Energy and Commerce Committee, GM is submitting warranty data which includes data that is outside the scope of the Special Order:
  - GM's production today includes warranty claim data for the 2005-2007 Chevrolet Cobalt, 2006-2007 Chevrolet HHR, 2006-2007 Pontiac Solstice, 2003-2007 Saturn ION, 2007 Saturn Sky and 2007 Pontiac G5 Pursuit, relating to the Ignition & Start Switch Housing Kit part numbers identified in the March 28, 2014 Ignition Switch Service Parts recall, exclusive of the Bill of Material row, Labor Codes and part numbers previously searched for that vehicle population. The Ignition & Start Switch Housing Kit part numbers were included in the

O. Kevin Vincent, Esq.

April 30, 2014

Page 2

part number search results previously produced for the 2008-2011 model year recall population, at GMNHTSA000421450-54.

- o GM's production today also includes warranty claim data relating to stall conditions for the 2008-2010 Cobalt, 2008-2011 Chevrolet HHR, 2008-2010 Pontiac Solstice, 2008-2010 Pontiac G5, and 2008-2010 Saturn Sky, that mirrors the Customer Complaint Codes and search term results that GM previously produced for the 2003-2007 model year recall population, at GMNHTSA000421455-58.
- o For the reasons set forth in GM's production letter dated March 26, 2014, because of the search methodology that was used to respond to the Committee's broad request, the warranty claims identified in the reports GM is producing do not all reflect the recall condition, and the quantity of claims reflected in the production is substantially greater than the number of claims related to the recall condition.

**2) Documents that are responsive to the Special Order, including Request Nos. 6 and 81. These documents include:**

- E-mail communication dated February 21, 2014 and attached reports, regarding an April 20, 2013 incident involving a model year 2006 Saturn Ion in which the airbags did not deploy, at GMNHTSA000420817-881 (Request No. 6).
- Electronic meeting invitation sent November 29, 2012 for a meeting scheduled on December 4, 2012, with the subject "2005-7 Cobalt Steering Column / Ignition Switch Review -2G16-05," at GMNHTSA000420357 (Request No. 81).

Copies of one document have been submitted to you in accordance with the requirements of 49 C.F.R. 512. GM submits that this document contains competitively sensitive information regarding analysis and evaluation of GM's future designs and design strategies. This document is submitted on discs that bear the Bates range GMNHTSA000421459 - GMNHTSA000421591. One DVD includes the redacted version of the document and one DVD includes the unredacted version.

O. Kevin Vincent, Esq.  
April 30, 2014  
Page 3

GM's production today is contained on two DVDs bearing the following Bates ranges:

- GMNHTSA000419542 - GMNHTSA000421458
- GMNHTSA000421459 - GMNHTSA000421591

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



April 30, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Twenty-Sixth Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") twenty-sixth interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA000421459 – GMNHTSA000421591. The label of one of these discs also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document, four copies of which are contained in today's submission, for which GM seeks confidential treatment. The label of the other CD does not bear the words "Confidential Business Information"; this CD contains a redacted version of the document for which GM seeks confidential treatment. The document relates to Request No. 3 of the Special Order.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 April 30, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000421485, GMNHTSA000421486, GMNHTSA000421489	Analysis and evaluation of GM's future designs and design strategies.
GMNHTSA000421518, GMNHTSA000421519, GMNHTSA000421522	Analysis and evaluation of GM's future designs and design strategies.
GMNHTSA000421552, GMNHTSA000421553, GMNHTSA000421556	Analysis and evaluation of GM's future designs and design strategies.
GMNHTSA000421586, GMNHTSA000421587, GMNHTSA000421590	Analysis and evaluation of GM's future designs and design strategies.

GM requests confidential treatment of the information in the above-referenced document because it includes trade secrets and commercial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The document identified above discloses information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. This document is maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage

Letter to O. Kevin Vincent  
14V047 Request  
April 30, 2014  
Page 3 of 4


systems where confidential information is stored and employees receive training in information security policies and procedures.

The document subject to this request for confidentiality is being provided and has been clearly stamped "Confidential Business Information" on a disc label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial information which should not be disclosed under the applicable statutes and regulations.

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with a large, stylized initial "M" and a long, sweeping underline.

M. Carmen Benavides, Director  
Field Product Investigations and Evaluations

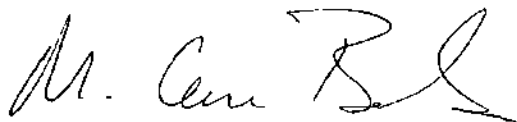
Enclosure: As stated

Letter to O. Kevin Vincent  
14V047 Request  
April 30, 2014  
Page 4 of 4

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Field Product Investigations and Evaluations of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated April 30, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 30th day of April 2014.



M. Carmen Benavides, Director  
Field Product Investigations and Evaluations



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-8000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 2, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-seventh interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 6, 65, 76, 83 and 87. These documents include:

- "Summary of Police Accident Report" regarding an incident which occurred on June 25, 2006, involving a model year 2005 Saturn Ion in which the airbags did not deploy, at GMNHTSA000428988-89 (Request No. 6).
- Microsoft Excel spreadsheets titled "Ray DeGiorgio Project Status" dated March 2006, reflecting "Change/Work Description and/or Commercial Issues" for the Chevrolet Cobalt and HHR to "Revise OFF/RUN/CRANK resistor value to meet common electrical architecture," at GMNHTSA000424124, GMNHTSA000424128; GMNHTSA000424129 (Request No. 65).



O. Kevin Vincent, Esq.

May 2, 2014

Page 2

- E-mail communication from Continental to GM dated May 19, 2009, with a subject of "cobalt view of area ~ from Fridays [sic] mtg," at GMNHTSA000430061 (Request No. 76).
- E-mail communications dated October through November 2012, regarding "Follow-Up on Cobalt Key Cylinder," at GMNHTSA200011099-106 (Request Nos. 83 and 87).

GM's production today is contained on one hard-drive bearing the following Bates ranges:

- GMNHTSA000423730 - GMNHTSA000428774
- GMNHTSA000478775 - GMNHTSA000431618
- GMNHTSA100096800 - GMNHTSA100098909
- GMNHTSA200003555 - GMNHTSA200011782
- GMNHTSA300001905 - GMNHTSA300037504

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 5, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-eighth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 6, 50, 65, and 96. These documents include:

- Microsoft Excel spreadsheet titled "GMX357 Field Events-JA 2013 (2)" listing incidents involving a 2005 model year Cobalt and 2005-2007 model year Ion vehicles, at GMNHTSA000440693 (Request No. 6).
- E-mail communication dated June 15, 2005, with the subject "6/17 MEETING NOTICE: X001 Ignition Cylinder Evaluation at MPG," at GMNHTSA300004606 (Request No. 50).
- E-mail communication dated December 16, 2005, with the subject "GMX 001 – Delta Ignition Switch" from a GM Design Release Engineer to Delphi employees, attaching a copy of Engineering Work

O. Kevin Vincent, Esq.  
 May 5, 2014  
 Page 2

Order 573556, which refers to changing the “crank circuit resistor value,” at GMNHTSA000440960-974 (Request No. 65).

- E-mail communication dated January 5, 2005, with the subject “Circuit Timing Data Ranges” regarding data “to help define the changes required to PCB architecture to comply with the spec requirements,” at GMNHTSA000440812 (Request No. 65).
- E-mail communication dated September 28, 2005, between Delphi employees regarding a request by a GM Design Engineer that Delphi perform warranty data analysis for the Delta ignition switch on the Chevrolet Cobalt, Chevrolet HHR and Saturn Ion, at GMNHTSA000440924-930 (Request No. 65).
- E-mail communication in or around October 2005 between Delphi employees and a GM Design Release Engineer with the subject “DELTA Ignition Switch PCB Validation ADVP&R,” at GMNHTSA000440938-939. (Request No. 65).
- E-mail communication dated February 24, 2006, between Delphi employees and a GM Design Release Engineer with the subject “Delta Force analysis,” at GMNHTSA000441008-14 (Request Nos. 65 and 96).
- E-mail communication dated March 16, 2005, with the subject “GMT900 Column Electrical Change Meeting,” regarding the “Delphi ignition switch,” at GMNHTSA300004596 (Request No. 96).

GM’s production today is contained on one flash drive bearing the following Bates ranges:

- GMNHTSA000431619 - GMNHTSA000437150
- GMNHTSA000438981 - GMNHTSA000442150
- GMNHTSA100098910 - GMNHTSA100099701
- GMNHTSA200011783 - GMNHTSA200021938
- GMNHTSA300003755 - GMNHTSA300004613

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

O. Kevin Vincent, Esq.

May 5, 2014

Page 3

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink that reads "Lucy Clark Dougherty". The signature is written in a cursive style with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 6, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") twenty-ninth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 45, 75, 76, and 77. These documents include:

- E-mail communication dated June 26, 2009, with the subject line "Ignition Spring Torque Increase – EWO 1145786," describing a work order to "increase the ignition spring torque to 20 Ncm," at GMNHTSA000444532-533 (Request No. 2).
- E-mail communication dated June 13, 2005, with the subject "PI (Preliminary Information) on Cobalt" attaching preliminary information dated February 28, 2005, regarding model year 2005 Pontiac Pursuit and model year 2005 Chevrolet Cobalt, at GMNHTSA300005306-7 (Request No. 45).
- E-mail communications in May and June 2009, with the subject "Friday Meeting to Discuss Cobalt," discussing the May 2009 meeting

O. Kevin Vincent, Esq.  
May 6, 2014  
Page 2

between GM engineers and representatives of Continental, at GMNHTSA000444524-26 (Request Nos. 75, 76, and 77).

GM's production today is contained on one DVD bearing the following Bates ranges:

- GMNHTSA000442151 - GMNHTSA000445669
- GMNHTSA300004614 - GMNHTSA300006271

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 7, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") thirtieth interim, partial response to the Special Order dated March 4, 2014 ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 21, 40, 49, and 65. These documents include:

- Microsoft PowerPoint presentation entitled "Ignition Cylinder R & R" for the model year 2008 Cobalt, G5, and HHR vehicles, model year 2007 and 2008 Lambda vehicles, and model year 2008 Equinox and Torrent vehicles at GMNHTSA300006275-278 (Request Nos. 21 and 65).
- Microsoft Word document titled "Cost estimate to change the vehicle key for the Cobalt only," at GMNHTSA100099702 (Request No. 40).
- E-mail communication dated November 21, 2005, with the subject "GMX-001 Keys with a Key Ring Hole and Triangular Key Ring" attaching JPEG images "showing the proposed 3/8 inch triangular key ring assembled to the new key," at GMNHTSA000445831 and GMNHTSA000445827 (Request No. 40).

O. Kevin Vincent, Esq.

May 7, 2014

Page 2

- E-mail communication dated June 15, 2005, with the subject "UPDATE: Cobalt Ignition/New York Times" regarding a Chevrolet Cobalt review in The New York Times and The Daily Item (Sunbury, PA), at GMNHTSA300006274 (Request No. 49).

GM's production today is contained on one DVD bearing the following Bates ranges:

- GMNHTSA000445670 - GMNHTSA000446532
- GMNHTSA100099702 - GMNHTSA100099702
- GMNHTSA200021939 - GMNHTSA200022092
- GMNHTSA300006272 - GMNHTSA300006461
- GMNHTSA510000000 - GMNHTSA510000287

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated





Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 9, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") thirty-first interim, partial response to the March 4, 2014 Special Order ("Special Order"). GM submits the enclosed response, as described in greater detail below.

Enclosed are copies of documents that are responsive to the Special Order, including Request Nos. 2, 6, and 25. These documents include:

- Engineering drawing for ignition switch part number 12450250, at GMNHTSA510000288-294 (Request No. 2).
- Documents related to *Jane Rimer, et al. v. General Motors Corp., et al.*, Civil Action No. 27-cv-14-4022 (Minn. Dist. Ct., County of Hennepin) (GM File # 778295), including newspaper articles, correspondence, and pleadings, at GMNHTSA000446534-556, GMNHTSA000446678-700, GMNHTSA000446711-12, GMNHTSA000446713-718, GMNHTSA000446719-722, GMNHTSA000446723-732, and GMNHTSA000446773-74 (Request No. 6).
- A complaint filed in the *Chansuthus* matter (GM File # 684002), at GMNHTSA000447152-65 (Request No. 6).

O. Kevin Vincent, Esq.

May 9, 2014

Page 2

- SMS messages relating to GM's Executive Field Action Decision Committee meetings, at GMNHTSA000457586-617 (Request No. 25).

GM's production today is contained on one DVD bearing the following Bates ranges:

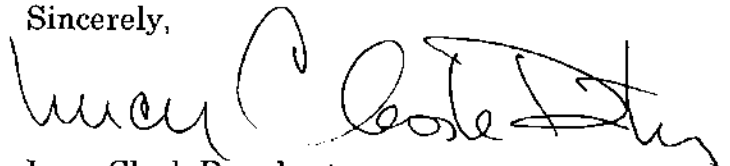
- GMNHTSA000446533 - GMNHTSA000457617
- GMNHTSA100099703 - GMNHTSA100100890
- GMNHTSA200022093 - GMNHTSA200022571
- GMNHTSA300006462 - GMNHTSA300006788
- GMNHTSA510000288 - GMNHTSA510000294

The encryption key for the DVDs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 13, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") thirty-second interim, partial response to the Special Order dated March 4, 2014.

GM's production today includes documents that are responsive to the Special Order, including Request Nos. 2, 6, 16, 65 and 69. The materials being produced include vehicle and airbag technical and design specifications, crash data analyses, early technical assessments, ignition switch work orders, steering column work history for the Chevrolet Cobalt, warranty claim information and vehicle testing data.

GM's production today is contained on one flash drive bearing the following Bates ranges:

- GMNHTSA000458544 - GMNHTSA000467875;
- GMNHTSA510000295 - GMNHTSA510000301;
- GMNHTSA000467876 - GMNHTSA000473990;
- GMNHTSA100104642 - GMNHTSA100104999;
- GMNHTSA200028755 - GMNHTSA200031257;
- GMNHTSA300011533 - GMNHTSA300012539.

The encryption key for the flash drive is: 4EFA36DA2B5BE539090CE.

O. Kevin Vincent, Esq.  
May 13, 2014  
Page 2

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucy Clark Dougherty". The signature is fluid and cursive, with a large initial "L" and "D".

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

---

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Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 14, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

I write to submit General Motors' ("GM's") thirty-third interim, partial response to the Special Order dated March 4, 2014.

GM's production today includes documents that are responsive to the Special Order, including Request Nos. 2, 65, 69, 76 and 81. The materials being produced include ignition switch technical specifications, crash data analyses, early technical assessments, ignition switch work orders and change history, and vehicle testing data.

Today's production includes certain types of non-standard files and/or attachments relating to testing that are generally not accessible or viewable without specialized software. These types of files include the following:

- ".001" - These file types relate to testing data that come from a legacy proprietary software program. Thus, GM does not have a readily available way to provide NHTSA with the software that will enable NHTSA to view these files. Should you identify any .001 files in today's production that you would like to access, GM will further investigate whether alternatives exist to render these files viewable by NHTSA.

O. Kevin Vincent, Esq.  
May 14, 2014  
Page 2

Copies of two documents have been submitted to you in accordance with the requirements of 49 C.F.R. 512. GM submits that these documents contain competitively sensitive information regarding costs and GM's engineering process. These documents are submitted on two discs that bear the Bates range GMNHTSA100105434 - GMNHTSA100105458. One disc includes the redacted versions of the documents and the other disc includes the unredacted versions.

GM's production today is contained on four discs. Two of the discs are labeled "Rough Road Series Q1" and "Rough Road Series Q2," and two other discs bear the following Bates ranges:

- GMNHTSA000473991 - GMNHTSA000474442;
- GMNHTSA100105000 - GMNHTSA100105433;
- GMNHTSA100105434 - GMNHTSA100105458;
- GMNHTSA300013011 - GMNHTSA300013079;
- GMNHTSA300012540 - GMNHTSA300013010;
- GMNHTSA200031258 - GMNHTSA200031651.

The encryption key for the discs is: 4EFA36DA2B5BE539090CE.

GM is conducting a comprehensive internal investigation of the facts relating to the recall that is the subject of the Special Order. GM will supplement its responses to the Special Order as additional responsive information is identified.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



GENERAL MOTORS LLC  
Vehicle Safety and Crashworthiness

May 14, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Thirty-third Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") thirty-third interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are two discs labeled with the Bates range GMNHTSA100105434 - GMNHTSA100105458. The label on the first disc also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label on the second disc does not bear the words "Confidential Business Information"; this disc contains redacted versions of the documents for which GM seeks confidential treatment. The documents are being produced in connection with the Special Order dated March 4, 2014.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed discs: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 May 14, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA100105436 -- GMNHTSA100105450	Cost-related information
GMNHTSA100105451 - GMNHTSA100105452	Cost-related information

GM requests confidential treatment of the information in the above-referenced documents because it includes trade secrets and commercial or financial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The documents identified above disclose information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. These documents are maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The documents subject to this request for confidentiality are being provided and have been clearly stamped "Confidential Business Information" on each document and on a disc label.

If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to

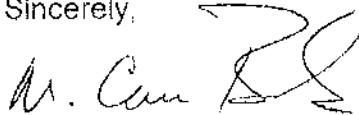


Letter to O. Kevin Vincent  
14V047 Request  
May 14, 2014  
Page 3 of 4

further explain the reasons why such material is trade secret and commercial or financial information which should not be disclosed under the applicable statutes and regulations.

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is stylized with a large, looped initial "M" and a long, sweeping underline.

M. Carmen Benavides  
Director of Remediation Initiatives

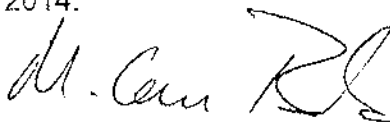
Enclosure: As stated

Letter to O. Kevin Vincent  
14V047 Request  
May 14, 2014  
Page 4 of 4

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Remediation Initiatives of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated May 14, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 14th day of May, 2014.



M. Carmen Benavides  
Director of Remediation Initiatives



May 16, 2014

O. Kevin Vincent, Esq.  
Chief Counsel  
Office of Chief Counsel (NCC-111)  
NHTSA, West Building W41-227  
1200 New Jersey Avenue, SE  
Washington, DC 20590

14V-047

Re: Thirty-fourth Interim, Partial Response to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") thirty-fourth interim, partial response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today are a disc and a flash drive labeled with the Bates range GMNHTSA300013165 – GMNHTSA300013188. The label on the disc also bears the words "Confidential Business Information"; this disc contains an unredacted version of the document for which GM seeks confidential treatment. The label on the flash drive does not bear the words "Confidential Business Information"; this flash drive contains redacted versions of the documents for which GM seeks confidential treatment. The documents are being produced in connection with the Special Order dated March 4, 2014.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed disc and flash drive: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



Letter to O. Kevin Vincent  
 14V047 Request  
 May 16, 2014  
 Page 2 of 4

The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA300013167 – GMNHTSA300013181	Cost-related information
GMNHTSA300013182	Cost-related information

GM requests confidential treatment of the information in the above-referenced documents because it includes trade secrets and commercial or financial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The documents identified above disclose information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles.

The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. These documents are maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The documents subject to this request for confidentiality are being provided and have been clearly stamped "Confidential Business Information" on each document and on a disc label.

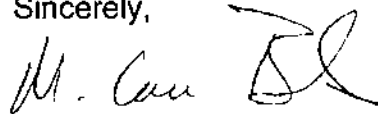
If a request for disclosure of any or all of this information is received by the NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to

Letter to O. Kevin Vincent  
14V047 Request  
May 16, 2014  
Page 3 of 4

further explain the reasons why such material is trade secret and commercial or financial information which should not be disclosed under the applicable statutes and regulations.

Should you require further information about this request, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is written in a cursive style with a large, stylized initial "M" and "C".

M. Carmen Benavides  
Director of Remediation Initiatives

Enclosure: As stated

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Remediation Initiatives of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated May 16, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 16th day of May, 2014.



M. Carmen Benavides  
Director of Remediation Initiatives



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 23, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

Pursuant to the Consent Order executed by General Motors ("GM") and the National Highway Traffic Safety Administration on May 16, 2014 ("Consent Order"), enclosed is GM's Supplemental Response to the March 4, 2014 Special Order ("Special Order"). Also enclosed are additional documents responsive to the Special Order.

Copies of eighteen documents have been submitted to you in accordance with the requirements of 49 C.F.R. 512. GM submits that these documents contain competitively sensitive information regarding future product design strategies and commercial or financial information. These documents are submitted on a hard drive and a disc that contain the Bates ranges GMNHTSA000614709-766, GMNHTSA100152857-2920, GMNHTSA200117951-18159, and GMNHTSA300086684-86917. The hard drive includes the redacted versions of the documents and the disc includes the unredacted versions.

GM's production today is contained on a hard drive and a disc bearing the following Bates ranges:

- GMNHTSA000484081 - GMNHTSA000614766
- GMNHTSA100105459 - GMNHTSA100105471
- GMNHTSA100105677 - GMNHTSA100152920

O. Kevin Vincent, Esq.

May 23, 2014

Page 2

- GMNHTSA200034102 - GMNHTSA200118159
- GMNHTSA300014318 - GMNHTSA300086917
- GMNHTSA500000047 - GMNHTSA500000054
- GMNHTSA510000555 - GMNHTSA510000574

The encryption key for the hard drive and the disc is:  
4EFA36DA2B5BE539090CE.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated



**UNITED STATES DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

1200 New Jersey Avenue, SE  
West Building, W41-326  
Washington, DC 20590

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**In re:**

TQ14-001

NHTSA Recall No. 14V-047

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**GENERAL MOTORS LLC'S  
SUPPLEMENTAL RESPONSE TO  
MARCH 4, 2014 SPECIAL ORDER**

Pursuant to the May 16, 2014 Consent Order entered into between General Motors LLC (“GM”) and the National Highway Traffic Safety Administration (“NHTSA”) (hereinafter “Consent Order”), GM submits this Supplemental Response to the Special Order issued by the Secretary of Transportation on March 4, 2014 (“March 4, 2014 Special Order”).

GM expressly incorporates into this Supplemental Response its April 25, 2014 Supplemental, Restated, and Consolidated Response to the March 4, 2014 Special Order and all document submissions to NHTSA from March 25, 2014 through today.

As stated in Paragraph Fifteen of the Consent Order, with respect to the investigation led by Anton Valukas, GM has requested Mr. Valukas to prepare a written factual report. GM will provide NHTSA a full and complete copy of the written factual report no later than June 30, 2014. In order to fully and completely respond to the March 4, 2014 Special Order and specifically Request Nos. 2-3, 26-27,

58-59, 77, 95-96, 98, and 106-107, as required by Paragraph Seventeen of the Consent Order, GM relies not only on its submissions to date but also on the Valukas written factual report to be provided to NHTSA.

In addition, GM has conducted a search of locations where documents determined to be responsive to the March 4, 2014 Special Order would ordinarily be expected to be found and has, with its submissions from March 25, 2014 through today, provided all responsive documents to the March 4, 2014 Special Order as identified through specified custodians and search terms with the exception, as permitted in Paragraph Seventeen of the Consent Order, of customer complaints and field reports responsive to Request Nos. 4-6 (which will be produced no later than 90 days after the date of execution of the Consent Order).

\* \* \*

### **REQUESTS & RESPONSES**

4. Separately for each model and model year vehicle included within this recall state the number of each of the following received by GM, or of which GM is otherwise aware, which relate or may relate to the defect:

- a. The number of consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality;
- d. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
- e. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts “a” through “c,” 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 (*e.g.*, 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). Provide the information in a Microsoft Excel file titled “REQUEST NUMBER FOUR.”

Response:

On April 3, 2014, GM submitted to NHTSA a revised list of lawsuits, not-in-suit matters (“NISMs”), incidents without claims, and customer complaints, identified as involving frontal impact crashes in which the recall condition may have caused or contributed to the airbags’ non-deployment. GM has also previously submitted the following:

- A complaint from a lawsuit (GM File #778295) associated with the same incident as the Rademaker NISM;
- A NISM file (GM File #635571) associated with the same incident as the Erica Lambert lawsuit; and
- A NHTSA Special Crash Investigations (“SCI”) Report.<sup>1</sup>

These documents have been produced to NHTSA at GMNHTSA000299290-9311, GMNHTSA000292899-2983 and GMNHTSA000261797-832.

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<sup>1</sup> The full title of this report is: “Office of Defects Investigation, Calspan On-Site Air Bag Non-Deployment Fatal Crash Investigation, SCI Case No: CA09022.”

The SCI Report relates to an April 2009 incident in Pennsylvania involving two fatalities of unidentified front-seat passengers. GM has not identified a lawsuit or NISM that relates to the incident and fatalities described in this report.

With respect to the Chansuthus NISM (GM File # 684002) that was included in the list submitted on April 3, 2014, upon further review, GM has discovered that a complaint was filed on December 29, 2010, but was never served upon GM. As such, this matter is reflected as a NISM in GM's responses to Requests Nos. 4 and 5.

GM is not aware of any relevant third-party arbitration proceedings.

The following table was submitted on April 25, 2014 regarding Request No. 4(c) and 4(e):

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2003	Saturn	Ion	0	0
2004	Saturn	Ion	4	4
2005	Saturn	Ion	2	2
2005	Chevrolet	Cobalt	13	3
2006	Saturn	Ion	3	0
2006	Chevrolet	Cobalt	8	0
2006	Chevrolet	HHR	1	0
2006	Pontiac	Solstice	0	0
2007	Saturn	Ion	3	0
2007	Chevrolet	Cobalt	8	0

<b>Model Year</b>	<b>Make</b>	<b>Model</b>	<b>4(c): Reports Involving a Crash, Injury, or Fatality*</b>	<b>4(e): Lawsuits in Which GM Is or Was a Defendant</b>
2007	Chevrolet	HHR	2	0
2007	Saturn	Sky	0	0
2007	Pontiac	G5	3	0
2007	Pontiac	Solstice	0	0

\* The response to Request 4(c) includes NISMs, incidents without claims, customer complaints and a NHTSA SCI Report. It does not include lawsuits.

A Microsoft Excel file with this information titled “REQUEST NUMBER FOUR” was provided on April 25, 2014.

5. Separately, for each item within the scope of your response to Request No. 4, state the following information:

- a. GM’s file number or other identified used;
- b. The category of the item, as identified in Request No. 4 (*e.g.*, consumer complaint);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle’s make, model, and model year;
- e. Vehicle’s VIN;
- f. Vehicle’s mileage at the time of incident;
- g. Incident date (in “dd/mm/yyyy” date format);
- h. Report or claim date (in “dd/mm/yyyy” date format);
- i. Whether a crash is alleged;

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

Provide the information in a Microsoft Access file titled “REQUEST NUMBER FIVE.”

Response:

To date, certain lawsuits, NISMs, incidents without claims, a NHTSA Special Crash Investigations (“SCI”) Report, and customer complaints have been identified as involving frontal impact crashes in which the recall condition may have caused or contributed to the airbags’ non-deployment. A spreadsheet titled “REQUEST NUMBER FIVE” containing the requested information was provided on April 25, 2014.<sup>2</sup>

With respect to the Chansuthus NISM (GM File # 684002) that was included in the spreadsheet submitted on April 25, 2014, upon further review, GM has discovered that a complaint was filed on December 29, 2010, but was never served upon GM. As such, this matter is reflected as a NISM in GM’s responses to Requests Nos. 4 and 5.

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<sup>2</sup> As noted in GM’s April 25, 2014 response, the following exceptions apply:

- As relates to 5(c), GM has not yet been able to verify the vehicle owner and contact information. GM has included the name of the individual involved in the crash, who may be the owner.
- As relates to 5(f), GM has been able to identify the mileage for some, but not all of the vehicles related to these matters.
- As relates to 5(h) and the “report or claim date,” GM has identified the date on which the matter was opened at GM.

GM previously revised, on April 25, 2014, the attachment titled “REQUEST NUMBER FIVE.” Revisions were made to address, among other issues: (1) double-counting of a fatality that is reflected in two lawsuits that relate to the same incident; (2) exclusion of injuries and fatalities to passengers in the back seat of the subject vehicles;<sup>3</sup> and (3) the identification of additional incidents in which the recall condition may have caused or contributed to the airbags’ non-deployment.

Specifically, the following revisions were reflected in the submission made on April 25, 2014, to the “REQUEST NUMBER FIVE” attachment submitted on April 3, 2014:

- A new entry has been added for the NHTSA Special Crash Investigations (“SCI”) Report referenced in GM’s above response to Request No. 4. The SCI Report relates to an April 2009 incident in Pennsylvania involving two fatalities of unidentified front-seat passengers. To date, GM has not identified a lawsuit or NISM that relates to the incident and fatalities described in this report.
- The entry regarding the number of fatalities reported for the Rademaker incident without claim (GM File #624620) has been revised from two fatalities to one fatality.<sup>4</sup>

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<sup>3</sup> As noted in GM’s prior submissions, including GM’s Part 573 letters dated February 24, 2014, and March 11, 2014, the numbers of injuries and fatalities reported relate to frontal occupants, and do not include injuries or fatalities of passengers in the back seat. The “REQUEST NUMBER FIVE” attachment submitted on April 3, 2014 incorrectly counted injuries and fatalities to passengers in the back seat for certain incidents.

<sup>4</sup> A lawsuit has been filed with respect to the October 24, 2006 incident previously reported as the Rademaker incident without claim. The lawsuit is captioned *Jayne Rimer et. al. vs. General Motors LLC et. al.* Accordingly, the entry for the Rademaker incident without claim in the “REQUEST NUMBER FIVE” attachment has been changed to the Jayne Rimer lawsuit (GM File #778295).

- The entry regarding the number of fatalities reported for the Anderson lawsuit (GM File #489548) has been revised from one fatality to zero fatalities. Both the Anderson and the Erickson (GM File #624610) lawsuits relate to the same November 15, 2004 incident. This incident involved a total of one injury and one fatality to front passengers in the subject 2004 Saturn Ion. The April 3, 2014 submission incorrectly reported one fatality for the Anderson lawsuit and one fatality for the Erickson lawsuit (*i.e.*, two total fatalities).
- The entry regarding the number of injuries and fatalities reported for the Nealon customer complaint (GM File #665487504) has been revised to reflect one injury and zero fatalities, respectively. The April 3, 2014 submission incorrectly reported zero injuries and one fatality associated with this incident.
- A new entry has been added for a NISM (Fourcade, GM File #635571) which involves one injury that relates to the June 25, 2006 incident also underlying the Erica Lambert lawsuit (GM File #513096).
- The entry regarding the number of injuries reported for the Towne lawsuit (GM File #511176) has been revised from two injuries to zero injuries.
- The entry regarding the number of injuries reported for the Colbert NISM (GM File #504880) has been revised from one injury to two injuries.
- The entry regarding the number of injuries reported for the McCormick NISM (GM File #636480) has been revised from two injuries to one injury.
- The entry regarding the number of injuries reported for the Tonya Lambert lawsuit (GM File #682178) has been revised from four injuries to two injuries.
- The entry regarding the number of injuries reported for the Spradlin NISM (GM File #658604) has been revised from three injuries to two injuries.
- The GM File Number for the Dubuc-Marquis incident without claim has been updated. The GM File Number is 776962.
- The vehicle mileage has been added for certain incidents, and revised with respect to the Gathe NISM (GM File #638575) and the Jefferson customer complaint (GM File #1182698557).

6. Provide copies of all documents related to each item within the scope of

Request No. 4. Organize the documents separately by category (*e.g.*, consumer



complaints, field reports, etc.) and in chronological order. These documents should include, but not be limited to, documentation of the 23 frontal-impact crashes identified in GM's chronology (Attachment B) included in GM's February 24, 2014 Part 573 Report.

Response:

GM has produced materials relating to certain lawsuits, NISMs, incidents without claims, a NHTSA Special Crash Investigations ("SCI") Report, field reports, and customer complaints, identified as involving frontal-impact crashes in which the recall condition may have caused or contributed to the airbags' non-deployment. (See, e.g., GMNHTSA000200564-218054; GMNHTSA000198612-23; GMNHTSA000149621-97570; GMNHTSA000253372-57776; GMNHTSA000292899-2983; GMNHTSA000293110-764; GMNHTSA000294758-316136; GMNHTSA000447152-65.)

**GM'S GENERAL STATEMENT REGARDING  
LIMITATIONS AND OTHER QUALIFICATIONS TO ITS RESPONSES**

1. By these responses, GM does not waive, and reserves all rights as to any applicable privileges, including the attorney-client and work product privileges.
2. GM's responses are based upon the information it has reviewed to date and reflect its current information and belief. Should GM identify additional facts or other non-privileged information responsive to the March 4, 2014 Special Order, GM will inform NHTSA.
3. With respect to the definition of "GM" as set forth in the March 4, 2014 Special Order, the relationship between GM and General Motors Corporation is defined by the Sale Approval Order issued by the United States Bankruptcy Court on July 5, 2009, and the Amended and Restated Master Sale and Purchase Agreement incorporated therein.



May 23, 2014

O. Kevin Vincent, Esq.  
 Chief Counsel  
 Office of Chief Counsel (NCC-111)  
 NHTSA, West Building W41-227  
 1200 New Jersey Avenue, SE  
 Washington, DC 20590

14V-047

Re: Documents Responsive to Special Order dated March 4, 2014

Dear Mr. Vincent:

I write to request that certain materials submitted today as part of General Motors' ("GM's") response to the Special Order dated March 4, 2014, be afforded confidential treatment.

Among the materials submitted today is one disc Bates labeled "GMNHTSA000614709 - GMNHTSA000614766; GMNHTSA100152857 - GMNHTSA100152920; GMNHTSA200117951 - GMNHTSA200118159; GMNHTSA300086684 - GMNHTSA300086917." The label on this disc also bears the words "Confidential Business Information"; this disc contains unredacted versions of the documents for which GM seeks confidential treatment. The label on the hard drive does not bear the words "Confidential Business Information"; this hard drive contains redacted versions of the documents for which GM seeks confidential treatment. The documents are being produced in connection with GM's response to the Special Order dated March 4, 2014.

As required by 49 C.F.R. 512.5, GM is submitting on the enclosed disc and hard drive: (1) two complete copies of the submission; and (2) a copy of the submission containing only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted.

GM requests that the documents stamped "Confidential Business Information" be afforded confidential treatment without a time limitation by the NHTSA. This confidential business information has not been publicly disclosed by GM and contains trade secrets and commercial information which is confidential under 5 U.S.C. Section 552(b)(4), 49 CFR Part 512 and Appendix B, and 49 U.S.C. Section 30167(a).



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 14V047 Request  
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The following identifies the specific types of confidential information contained in each document:

Document Title	Information Type
GMNHTSA000614735 – GMNHTSA000614766; GMNHTSA200118095 – GMNHTSA200118126; GMNHTSA200118128 – GMNHTSA200118159; GMNHTSA100152857; GMNHTSA100152889 – GMNHTSA100152920	Analysis and evaluation of GM's future designs and design strategies
GMNHTSA000614726 – GMNHTSA000614727; GMNHTSA200118085 – GMNHTSA200118086; GMNHTSA300086910 – GMNHTSA300086911; GMNHTSA300086863; GMNHTSA300086886	Cost-related information
GMNHTSA000614711 – GMNHTSA000614725; GMNHTSA200118070 – GMNHTSA200118084; GMNHTSA300086895 – GMNHTSA300086909; GMNHTSA300086848 – GMNHTSA300086862; GMNHTSA300086871 – GMNHTSA300086885	Cost-related information
GMNHTSA200117957 – GMNHTSA200118015; GMNHTSA300086689 – GMNHTSA300086747; GMNHTSA300086782 – GMNHTSA300086846	Analysis and evaluation of GM's future designs and design strategies

GM requests confidential treatment of the information in the above-referenced documents because it includes trade secrets and commercial or financial information, the disclosure of which would cause substantial competitive harm to GM. The competitive harm would be substantial because the design and manufacture of vehicles and vehicle components are the core of its business and because global competition in that business is intense.

The documents identified above disclose information about GM's future product design strategies, including the evaluation, analysis, and illustrations of alternative designs and strategies for future vehicles. The development of product design strategies for future vehicles involves significant resources including financial resources, as well as the time, effort, and skill of many employees. This information would give competitors insight into GM's future products and disclose confidential information about its evaluation of different design alternatives, without spending their own resources or compensating GM for the knowledge they would gain.

Letter to O. Kevin Vincent  
14V047 Request  
May 23, 2014  
Page 3 of 4

GM treats the above material as confidential proprietary information available only to authorized GM and supplier personnel who have a business need for them, and are not otherwise available to the public. These documents are maintained under a record-keeping system that is intended to control dissemination of this material within GM and supplier and customer personnel, and to assure that it is not freely disseminated outside GM. Multiple security systems are used to limit access to facilities and record storage systems where confidential information is stored and employees receive training in information security policies and procedures.

The documents subject to this request for confidentiality are being provided and have been clearly stamped "Confidential Business Information" on each document and on the disc label.

If a request for disclosure of any or all of this information is received by NHTSA, GM requests notification of receipt of each such request and, if necessary, an opportunity to further explain the reasons why such material is trade secret and commercial or financial information which should not be disclosed under the applicable statutes and regulations.

Should you require further information about this request, please do not hesitate to call me.

Sincerely,



M. Carmen Benavides  
Director of Remediation Initiatives

Enclosures: As stated

## CERTIFICATE IN SUPPORT OF REQUEST FOR CONFIDENTIALITY

I, M. Carmen Benavides, pursuant to the provisions of 49 CFR Part 512, state as follows:

- (1) I am the Director of Remediation Initiatives of General Motors LLC and am authorized to execute this certificate on its behalf.
- (2) I certify that the information contained in the documents identified in the letter dated May 23, 2014, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) and 49 C.F.R. Part 512.
- (3) I hereby request that the information be protected without a time limitation.
- (4) This certification is based on the information provided by GM personnel who have responsibility for the documents being provided to the NHTSA for which a claim of confidentiality has been made.
- (5) Based on that information, to the best of my knowledge, information and belief, the information for which GM has claimed confidential treatment has never been released or made available outside GM and supplier or customer personnel, except as may have been otherwise required by law.
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside GM because of unauthorized or inadvertent disclosure.
- (7) I certify under penalty of perjury that the foregoing is true and correct. Executed on this the 23<sup>rd</sup> day of May, 2014.



M. Carmen Benavides  
Director of Remediation Initiatives



**Lucy Clark Dougherty**  
GMNA Vice President & General Counsel

GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
300 GM Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000  
Telephone: (313) 667-7621  
*lucy.dougherty@gm.com*

May 30, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

As discussed with Ms. Kolodziej today, enclosed are 28 documents (as well as all documents embedded in or attached to the 28 documents) we have identified that were intended to be produced last week in response to the March 4, 2014 Special Order, but were inadvertently excluded as a result of technical issues related to the reading of metadata.

These documents are contained on a disc bearing the Bates range GMNHTSA000614767 - GMNHTSA000614828.

The encryption key for the disc is: 4EFA36DA2B5BE539090CE.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,

A handwritten signature in black ink that reads 'Lucy Clark Dougherty'.

Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosure as stated



Lucy Clark Dougherty  
GMNA Vice President & General Counsel

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GENERAL MOTORS COMPANY  
Mail Code: 482-C25-A36  
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P.O. Box 300  
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*lucy.dougherty@gm.com*

June 24, 2014

O. Kevin Vincent, Esq.  
Office of the Chief Counsel (NCC-111)  
National Highway Traffic Safety Administration  
West Building, W41-326  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Vincent,

Consistent with the May 16, 2014 Consent Order, GM has provided documents responsive to the March 4, 2014 Special Order ("Special Order") as identified through specified custodians and search terms as of May 23, 2014, with the exception, as permitted in Paragraph Seventeen of the Consent Order, of customer complaints and field reports responsive to Request Nos. 4-6 (which will be produced no later than 90 days after the date of execution of the Consent Order). As discussed with you and your team, and as stated in GM's May 23, 2014 Supplemental Response to the Special Order, GM agreed to inform the National Highway Traffic Safety Administration ("NHTSA") should GM identify, subsequent to completing its production, additional facts or other non-privileged information responsive to the Special Order. As you know we are still producing and reviewing documents in response to other governmental entities' requests and in the course of so doing, GM has identified the following documents responsive to the Special Order, which we are providing NHTSA today.

First, we are providing additional responsive hard-copy documents found after GM's May 23, 2014 response that either Carmen Benavides identified at the end of May or GM found in her office in early June. These documents are labeled with the following Bates ranges: GMNHTSA000660457-0788; GMNHTSA000661476-1835; GMNHTSA000660447-60456; and GMNHTSA510000575-79. Among these documents are notebooks that contain Ms. Benavides's handwritten notes. With respect to one notebook, only several pages of this notebook were identified as responsive to the Special Order. Today's



O. Kevin Vincent, Esq.

June 24, 2014

Page 2

production includes the cover and four pages from this notebook, which are Bates numbered GMNHTSA510000575-79. Two of the pages, Bates numbered GMNHTSA510000577-78, have been identified as responsive to the Special Order but do not themselves bear dates. Because the notebook cover and two additional pages (one of which immediately precedes the responsive pages, and the other of which immediately follows them) do bear dates, GM is producing these additional portions of the notebook in order to provide relevant date information.

Second, today's production includes twenty-nine documents that GM produced to other government entities after May 23, 2014. These documents are labeled with the following Bates ranges: GMNHTSA000660789-0808; GMNHTSA000661395-1475; GMNHTSA100313826-827; and GMNHTSA300095981-988. GM identified these documents through the use of specific search terms and custodian lists developed to respond to other government entities' requests. These documents include the following:

- E-mail communication dated May 17, 2012, with the subject "Ignition Key Drawings."
- E-mail communication dated March 8, 2001, with the subject "Delta-Z: Eaton Ignition Switch for Beta builds."
- E-mail communication dated September and October of 2012, with the subject "Weekly Update – Cobalt Key," referencing Red X study regarding the "Cobalt airbag investigation" and attaching a video of an individual turning a Cobalt ignition key.
- Document showing the ignition key design for the Saturn Sky (GMX 023).
- E-mail communication dated August 3, 2004, with the subject "Quotation...for Column Assy w/new Ignition Switch," and attaching Work Order No. 305217 for modified ignition switch part number 10392423.
- E-mail communication between Transport Canada and GM personnel dated April 8, 2008, with the subject "Air Bag Case Review" and referencing the 2003 Saturn Ion.
- E-mail communication dated November 8, 2012, with the subject "2005 cobalt ignition switch," referencing testing of the 2005 Cobalt ignition switch.

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- E-mail communication dated December 20, 2011, with the subject "GMX001 Proposal," and an attachment referencing a "review of selected GMX001 field events" for 2005-2007 model year vehicles.
- E-mail communication dated November 2, 2012, with the subject "GMT 250 lock cylinder detent," referencing "a new ignition switch" and attaching images of ignition parts.
- E-mail communication dated in May 2012, with the subject "Cobalt Column," referencing arrangements "to inspect the ignition switches and measure forces on cars at one of the salvage yards."
- Electronic meeting invitation to a December 18, 2013 meeting, with the subject "Cobalt Airbag Chronology."
- Invitations from Raymond DeGiorgio, dated September 2001 and February 2002, to various individuals regarding upcoming meetings related to the ignition switch for several vehicle platforms including GMX357, provided to GM by Delphi.
- Invitation to a June 7, 2004 meeting from a Delphi employee to Raymond DeGiorgio and various Delphi employees, with the subject "Conf call with GM for ignition switches," provided to GM by Delphi.
- Invitation to a June 11, 2004 meeting from a Delphi employee to Raymond DeGiorgio and various Delphi employees, with the subject "Delta ignition follow up with Ray DeGiorgio," provided to GM by Delphi.
- E-mail communication dated July 18, 2005, with the subject "GMX 002 DLIS - Ignition switch quotes '08 MY," referencing the "need for a replacement of the Delta Ignition switch," provided to GM by Delphi.

Third, today's production also includes seventy-one documents that are attachments to eight documents previously produced to NHTSA. These seventy-one documents were inadvertently not included in the prior productions because of a data-processing vendor error that GM identified after May 23, 2014. These seventy-one documents are not themselves responsive to the Special Order, but are being produced as attachments to the eight documents previously produced pursuant to the instructions contained in the Special Order. The eight documents were previously produced with the following Bates ranges:

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GMNHTSA000481834-1987; GMNHTSA000515232-38; GMNHTSA000515263-280; GMNHTSA000515281-288; GMNHTSA000523455; GMNHTSA000523459; GMNHTSA000523460-64; and GMNHTSA000551903-907. Today, these eight documents are being re-produced with their attachments and new consecutive Bates numbers at GMNHTSA000660809-61394.

The above-described documents are contained on discs bearing the following Bates ranges:

- GMNHTSA000660447 - GMNHTSA000661835
- GMNHTSA100313826 - GMNHTSA100313827
- GMNHTSA300095981 - GMNHTSA300095988
- GMNHTSA510000575 - GMNHTSA510000579

The encryption key for the discs is: 4EFA36DA2B5BE539090CE.

Please do not hesitate to contact me should you, Mr. Goodman, or Ms. Kolodziej wish to discuss these or other matters.

Sincerely,



Lucy Clark Dougherty  
Vice President and General Counsel  
General Motors North America

Enclosures as stated