Attachment B:

The chronology below describes the principal events relating to GM's March 2014 determination to issue a safety recall for certain vehicles on its Delta and Epsilon platforms. Vehicles on GM's Delta platform include the Chevrolet Cobalt, Pontiac G5, Pontiac Pursuit, Chevrolet HHR, and Saturn ION. Vehicles on the Epsilon platform include the Chevrolet Malibu, Pontiac G6, and Saturn AURA.

Vehicles on the Delta and Epsilon platforms utilize a column mounted electronic power steering ("EPS") system. The EPS system for Delta platform vehicles is supplied by JTEKT North America, Inc. The EPS system for Epsilon platform vehicles is supplied by Nexteer. As described below, the root causes for loss of EPS assist in the Delta and Epsilon vehicles differ.

2004 - 2006

On March 30, 2004, the National Highway Traffic Safety Administration ("NHTSA") opened a Preliminary Evaluation ("PE") related to 2004 model year ("MY") Chevrolet Malibu vehicles, including the Malibu Maxx. The basis for the PE was the possible failure, malfunction, or otherwise unsatisfactory performance of the EPS system in these vehicles. On April 5, 2004, NHTSA issued an Information Request ("IR") to GM concerning the Malibu and, in addition, requested information relating to the 2004 MY Saturn ION, which NHTSA believed used a similar EPS system. GM provided responses to the IR on May 18, 2004.

As reflected in NHTSA's closing report, GM identified two factors that contributed to the alleged EPS defect: (1) contamination of the torque and position sensor (components of the EPS system) from the separation of grease applied to the steering column assembly; and (2) electrical noise generated on the power and ground slip ring surfaces of the torque sensor supplied by Furukawa. In February 2004, supplier Delphi (which, in part, later became Nexteer) replaced the Furukawa torque sensors with torque sensors manufactured by BI Technologies Corporation ("BI").

An analysis by NHTSA indicated that failure rates continued to occur in Malibu vehicles, and on July 1, 2004, NHTSA upgraded its investigation to an Engineering Analysis ("EA"). That EA (EA04-018) applied only to Malibu vehicles because no similar trend was noted for the ION.

In November 2004, GM announced a Customer Satisfaction program (Bulletin 04050), which was revised in December 2004 (Bulletin 04050A). The program addressed the power steering assist in 2004 Chevrolet Malibu and Malibu Maxx vehicles and instructed dealers to inspect and, if necessary, replace the steering column.

On May 10, 2005, NHTSA closed EA04-018. NHTSA's reasons for closing the EA, as noted in its closing report, included GM's Customer Satisfaction program and findings from the Vehicle Research and Test Center that "[t]he impact on the driver's ability to control these relatively small and light vehicles was limited."

On July, 15, 2005, Transport Canada issued to GM Canada an IR relating to loss of power assist steering on 2004 and 2005 Malibu Maxx vehicles (TC 3284-RR948) to which GM Canada provided a response on September 20, 2005.

2007 - 2008

On April 25, 2007, NHTSA opened a PE investigation (PE07-023) related to 2005-2006 MY Pontiac G6 vehicles. The basis for the PE was the possible loss of power steering assist due to an insufficient crimp at the torque and position sensor located in the steering column assembly. On May 16, 2007, NHTSA issued an IR to GM, to which the company provided responses on June 26, 2007.

GM had assigned a Field Performance Evaluation ("FPE") investigator to review the loss of EPS issue in June 2007. That investigation culminated in a Special Coverage in December 2007 covering 2005 MY Chevrolet Malibu, Malibu Maxx, and Pontiac G6 vehicles (Bulletin 07126). The Special Coverage provided an extended warranty for a period of 7 years or 70,000 miles. Dealers were instructed to replace the steering column assembly.

NHTSA closed PE07-023 on September 25, 2007, explaining in its closing resume that "[t]he subject vehicles use the same EPS system as the MY 2004 Chevrolet Malibu vehicles investigated by ODI in EA04-018. Although the failure rates are high in this investigation, particularly for the peak months, they are significantly lower than for the Malibu vehicles investigated in EA 04-018. As in those vehicles, the effects on steering effort are small at speeds greater than 15-20 mph. Accordingly, this investigation is closed."

2009

On January 26, 2009, GM's Chairman received a letter from a customer regarding the loss of power steering in a 2005 Cobalt. The letter was forwarded to GM's Vice President for Global Quality and an FPE investigator was assigned to the issue the next day. In March and April 2009, GM reviewed data relating to loss of EPS assist in the Cobalt and requested information and returned parts from dealers.

On May 12, 2009, the issue was discussed at a weekly Internal Status Review ("ISR") meeting.

On June 9, 2009, the EPS issue was moved to "monitor" status for purposes of the FPE investigation due to a low rate of warranty claims and a lack of an identified root cause. GM engineers and EPS supplier JTEKT continued to investigate the root cause, and GM continued to monitor warranty claims.

In July 2009, GM and JTEKT identified the root cause of the EPS issue in Delta platform vehicles as oil contamination or intrusion within the motor case. When oil separates from the grease in the steering shaft and flows into the motor case, particles from the motor brush mix with the oil and can form a conductive paste between the commutator

segments. That conductive material causes the EPS module to interpret a short. In response, the EPS assist is disabled, and the vehicle reverts to a manual steering mode until the next ignition cycle. The diagnostic settings in the Cobalt made it more susceptible to triggering the diagnostic code than other vehicles on the Delta platform. If the power steering assist is lost, a message is displayed on the Driver Information Center and a chime sounds to inform the driver.

In September 2009, JTEKT identified use of sealed bearings in the motor as a possible corrective action. A sealed bearing would block the migration of oil and grease into the motor case. A work order for the sealed bearing was opened on September 23, 2009, and the new design was tested and validated from October through December 2009.

In the interim, GM observed an increase in warranty claims and Vehicle Owner Questionnaires ("VOQs") relating to loss of EPS assist. As a result, the FPE investigation was reinstated to active status in October 2009.

JTEKT began production of a new motor with sealed bearings in December 2009. These bearings were incorporated into Cobalt and HHR vehicles in March 2010 and April 2010, respectively.

2010

On January 27, 2010, NHTSA opened PE10-005 to assess the frequency, scope, and safety consequences of alleged loss of power steering in 2005-2009 MY Cobalt vehicles. On February 17, 2010, GM received an IR from NHTSA for the Cobalt, as well as certain "peer vehicles," *i.e.* the 2005-2009 MY Saturn ION, Chevrolet Malibu, and Pontiac G6.

On March 1, 2010, the Executive Field Action Decision Committee ("EFADC") met at GM's Milford Proving Grounds, where GM personnel were able to drive a vehicle that simulated the spontaneous loss of assist. That day, the EFADC made a determination to conduct a safety recall for certain Delta platform vehicles: the 2005-2010 MY Chevrolet Cobalt, 2005-2006 MY Pontiac G4, 2005-2006 MY Pontiac Pursuit (Canada), and 2007-2010 MY Pontiac G5 vehicles.

GM informed NHTSA by telephone of the recall decision the same day. This was the first time GM treated loss of power steering assist as a safety issue. Previous issues were treated with either Customer Satisfaction programs or through extended warranty coverage. During the March 1 telephone call, NHTSA advised that unsold vehicles should be held until a fix was implemented. A stop sale/stop delivery of unrepaired vehicles subject to the recall was issued on March 2. Also on March 2, a Notice of Defect ("NOD") letter was issued by GM Canada.

A safety recall bulletin was released on March 19, 2010 (Bulletin 10023). In light of the safety recall, GM was not required to answer NHTSA's full information request from February. However, on March 8, 2010, NHTSA emailed GM a list of questions from its February 17 letter that still required GM's response. GM provided that response on April 14, 2010.

On March 26, 2010, Transport Canada issued an IR to GM Canada regarding Chevrolet HHR and Saturn ION vehicles sold in Canada and equipped with the same JTEKT electric power steering motor as the Cobalt. Transport Canada did not perceive a tangible or physical difference between the HHR/ION vehicles and the Cobalt/Pursuit/G5 vehicles regarding the electric power steering issues. GM Canada provided a response to Transport Canada on May 5, 2010.[1]

GM and JTEKT continued to investigate the oil intrusion issue. In addition to the sealed bearing, work orders were initiated to seal certain holes, move other holes, and add an "oil slinger." Motors with these additional fixes were incorporated in vehicles beginning in May and June 2010.

In June 2010, GM updated the March 2010 safety recall bulletin for the Cobalt, Pursuit, G4 and G5 vehicles. Bulletins 10023B and 10023C updated the parts information and service procedure sections of the original March bulletin (10023).

On June 18, 2010, the EFADC approved a Special Coverage for the 2004-2007 MY ION. The Special Coverage applied to both the United States and Canada and extended warranty coverage for the EPS to 10 years or 100,000 miles (Bulletin 10187). Dealers were instructed to replace the power steering motor.

Also on June 18, 2010, the EFADC approved a Special Coverage for the 2005–2006 and 2008 MY Chevrolet Malibu and Malibu Maxx, 2005–2006 and 2008 MY Pontiac G6, and the 2008 MY Saturn AURA (Bulletin 10183). The Special Coverage provided an extended warranty for a period of 10 years or 100,000 miles. For 2005–2006 MY vehicles, dealers were instructed to replace the steering column. For 2008 MY vehicles, dealers were instructed to replace the power steering motor and control module.

On July 19, 2010, GM met with NHTSA officials in Washington, DC to discuss the recent actions with regard to EPS for the Cobalt, ION, Malibu, and G6. GM relayed to NHTSA officials why it believed the June 18 Special Coverage was the appropriate course of action. During that meeting, GM presented information regarding the Cobalt, and reviewed its continued analysis of EPS performance on the ION and Malibu/G6 using revised analytic techniques. GM noted that loss of power steering assist historically had been treated by the auto industry in the U.S. and other countries as a Special Coverage or Customer Satisfaction issue because manual steering control is maintained. GM further noted that the Cobalt was handled in a different manner based on GM's desire to obtain quick resolution and closure of NHTSA's investigation. The same day, NHTSA's Office of Defects Investigation closed PE10-005, citing GM's safety recall.

On September 15, 2010, Transport Canada requested that GM provide information regarding its decision to implement a Special Coverage rather than an NOD for the ION,

[1] Revised to reflect dates and information received regarding interaction with Transport Canada.

Malibu, Malibu Maxx, Pontiac G6, and Saturn AURA vehicles as announced on June 18, 2010.

GM Canada responded by letter dated October 22, 2010. GM noted that there were two primary reasons behind GM's decision to address the "loss of assist" condition in the subject vehicles through a Special Coverage rather than an NOD. First, the subject vehicles could be controlled in a safe manner without the electric motor's assistance, albeit with greater effort at lower speeds or while stopped. (GM explained that this was why loss of power steering assist conditions had previously been addressed either by a Special Coverage or Customer Satisfaction field actions.) Second, GM's data analysis showed projected rates of loss of assist in these vehicles at rates lower than those for the Cobalt.

On October 28, 2010, GM Canada and Transport Canada met via web conference to discuss the differences between the Cobalt and ION/HHR vehicles in terms of EPS system function and reported incident rates.

On November 2, 2010, Transport Canada requested additional information regarding the EPS systems on Cobalt, Pursuit, G5, ION, Malibu and Malibu Maxx, G6 and AURA vehicles.[2]

During a telephone conference on December 10, 2010, Transport Canada expressed their position that an NOD is required for the 2003-2007 Saturn ION and the 2006-2010 Chevrolet HHR as the vehicles are equipped with the same EPS motor as the 2005-2010 Cobalt/G5.

GM Canada responded to Transport Canada's November 2 request for information on December 10, 2010.[3]

On December 15, 2010, NHTSA opened a Recall Query (RQ 10-004) with regard to possible EPS issues involving the 2004-2007 MY ION.

On December 16, 2010, GM Canada issued an NOD for the 2003-2007 MY ION and the non-turbo HHR for MY 2006-2010 (Transport Canada Recall # 2010447). GM extended the warranty with regard to EPS for these vehicles in Canada to 10 years and 150,000 miles/240,000 km (Bulletin 10413, issued January 27, 2011). The EFADC approved this action and advised NHTSA of its decision.

[2] Revised to reflect dates and information received regarding interaction with Transport Canada.
[3] Revised to reflect dates and information received regarding interaction with Transport Canada.

2011

On February 17, 2011, NHTSA issued an IR in connection with RQ 10-004. The IR noted that the failure of the EPS system described in GM's July 2010 Special Coverage bulletin (Bulletin 10187) for the Saturn ION was substantially the same as for the EPS failure in 2005–2010 MY Chevrolet Cobalt vehicles. The IR requested information on the ION as well as "peer" vehicles, which it defined as the Chevrolet Cobalt, Chevrolet Malibu, Pontiac G5, and Pontiac G6.

GM discussed the timeline for its response to the February 17, 2011 IR with a NHTSA representative on March 22, 2011. Thereafter, GM provided responses to the IR on April 8, April 29, May 13, May 20, and June 17, 2011.

On September 29, 2011, NHTSA upgraded its RQ investigation (RQ10-004) to an EA (EA11-014) to further assess the frequency, scope and safety consequences of a sudden loss of steering assist in 2004–2007 MY Saturn ION vehicles. NHTSA described the problem as a buildup of oil and debris on the armature of the EPS assist motor and stated that its Office of Defects Investigation believed this condition "could result in some loss of control and a crash."

On December 6, 2011, NHTSA verbally requested that GM update certain information regarding the ION that GM previously provided on May 20, 2011. On December 7, 2011, GM began the process of collecting the information necessary to update its previous response to NHTSA.

2012

On January 20, 2012, GM submitted a letter to NHTSA containing updated data for the 2004-2007 MY ION as verbally requested by NHTSA on December 6, 2011.

On April 25, 2012, GM employees met with NHTSA representatives via WebEx. During this meeting, GM responded to NHTSA's questions regarding the ION, Malibu, G6, HHR, and Cobalt. GM noted that its Special Coverage had a significant impact on loss of assist rates and that it was assessing whether to increase coverage to 150,000 miles and whether to include HHR vehicles.

On May 24, 2012, GM extended its warranty coverage for EPS to 10 years or 150,000 miles for the 2004-2007 MY ION, 2005-2006 MY and 2008 MY Malibu and G6 vehicles, and the 2008 MY AURA (Bulletin 10187A). As noted above, the warranty for these vehicles had been extended previously on June 18, 2010.

At a meeting held on June 26, 2012, GM Canada and Transport Canada discussed the addition of a Notice of Defect letter for Malibu, G6 and AURA vehicles.[4]

[4] Revised to reflect dates and information received regarding interaction with Transport Canada.

On August 2, 2012, GM and NHTSA held a WebEx meeting to discuss speed and lateral acceleration effects on steering wheel force.

On October 1, 2012,[5] GM Canada issued an NOD in Canada for the 2005, 2006 and 2008 MY Malibu, Malibu Maxx, and G6 vehicles and the 2008 MY AURA (Transport Canada Recall # 2012331), whereby it extended warranty coverage for the EPS to 10 years or 150,000 miles/240,000 km – the same as the extension for the warranty period announced with regard to the United States on May 24, 2012.

2013

GM continued to monitor warranty and VOQ data relating to the EPS issue in Delta and Epsilon vehicles in 2013. From August through September 2013, GM updated its data and analysis. GM observed an increase in warranty rates and in vehicle owner complaints to NHTSA. NHTSA's EA11-014 investigation remained "open."

GM and NHTSA met on November 7, 2013 in Washington, D.C. This meeting was not with regard to EA 11-014, but the investigation was mentioned by a NHTSA official in conversation with one of the GM attendees. GM reviewed updated warranty and claims data throughout November 2013. GM also began efforts to obtain return warranty parts for the ION, HHR, and Malibu in December 2013.

Materials regarding ION, Cobalt, HHR, Malibu and G6 EPS issues were presented at an ISR meeting on December 3, 2013.

2014

In early 2014, GM continued to gather and review data with regard to EPS issues and gather return warranty parts for evaluation.

On March 19, 2014, GM began to assemble a collaboration room to review data regarding EPS issues with the Cobalt, ION, HHR, Malibu, G6 and AURA, and examine returned parts.

An FPERC meeting was convened on March 24, 2014 to discuss the EPS issues. A follow-up FPERC meeting was held on March 26, 2014. The FPERC made recommendations for the EFADC, which also met on March 26, immediately following the FPERC meeting. Two of the three EFADC members were present at the meeting. They discussed the FPERC's recommendations and expanded the vehicle population recommended by the FPERC for field action.

On March 27, 2014, the third EFADC member was briefed on the EPS issues and agreed with the preliminary determinations made by the other two EFADC members.

[5] Revised to reflect dates and information received regarding interaction with Transport Canada.

Accordingly, the EFADC decided to issue recalls with regard to certain vehicles and provide a Special Coverage for others.

Since March 28, 2014, GM has continued to review VOQs and other sources of customer claims relating to the vehicles subject to the EFADC's recall decision.

On March 31, 2014, GM submitted a 573 letter to NHTSA advising NHTSA of the EFADC's March 27 decision to conduct a safety recall.

Revised: April 17, 2014 – See footnotes