



GENERAL MOTORS LLC
Global Interior and Safety Center

May 19, 2011

Jennifer T. Timian, Chief
Recall Management Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Ave., S. E., Room W48-307
Washington, D.C. 20590

N110049

NVS-215aa
EQ11-001

Dear Ms. Timian:

This letter is General Motors (GM) response to your Equipment Query (EQ), dated April 7, 2011, requesting additional information regarding the scope of GM recall 10V-644.

The subject vehicles for this Information Request (IR) are 2005 – 2007 model year (MY) Cadillac CTS vehicles manufactured by General Motors for sale or lease in the United States containing Passenger Sensing System (PSS) mats manufactured by IEE that are the subject of safety recall 10V-644 and the associated special coverage. Note that vehicles repaired with service part number 19124390 are not the subject of safety recall 10V-644 or the associated special coverage.

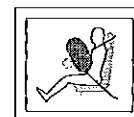
Your requests and our corresponding replies are as follows:

- 1. Please confirm that GM installed the IEE mats that are the subject of safety recall 10V-644 and the associated special policy only on the model year 2005-2007 Cadillac CTS. If GM installed these mats on other products, please identify by make, model, and model year, those other vehicles and explain why those vehicles were not included in safety recall 10V-644.**

The 2005 – 2007 MY Cadillac CTS vehicles are the only vehicles manufactured by GM with the IEE PSS mats that are the subject of safety recall 10V-644 and the associated special policy.

- 2. Please confirm the number of IEE mats GM purchased that are the subject of safety recall 10V-644 and the associated special policy.**

Lear Corporation (Lear) was the purchaser of the CTS PSS mats and incorporated them into seating assemblies for the Cadillac CTS. Lear purchased



the CTS PSS mats, incorporated them into seating assemblies, and sold the seating assemblies to GM. After production of the subject vehicles, Lear's affiliated entity, Integrated Manufacturing and Assembly, LLC (IMA), purchased the IEE CTS PSS mats, which were then sold to GM as service parts.

General Motors is providing the number of subject vehicles produced for sale or lease in the United States by make, model and model year in Table 2-1, built with the IEE CTS PSS mats that are the subject of safety recall 10V-644 and the associated special policy.

MAKE/MODEL	2005 MY	2006 MY	2007 MY	TOTAL
CADILLAC CTS	58,149	46,103	45,241	149,493

TABLE 2-1 SUBJECT VEHICLES WITH IEE PASSENGER SENSING SYSTEM MAT

General Motors in providing an electronic summary table on the ATT_1_GM disk; in the folder labeled "Q_02", that contains the number of seat cushion assemblies GM sold as service parts that incorporated the IEE CTS PSS mat that is the subject of safety recall 10V-644 and the associated special policy.

- 3. Please provide a copy of the special policy GM identified in its defect information report and identify by make, model, and model year the vehicles covered by that policy, and provide the number of vehicles covered by that policy.**

Table 3-1 contains the number of vehicles GM produced for sale or lease in the United States by make, model and model year that are subject to Special Coverage Bulletin 10420.

MAKE/MODEL	2005 MY	2006 MY	2007 MY	TOTAL
CADILLAC CTS	41,438	32	11,921	53,391

TABLE 3-1 VEHICLES INCLUDED IN SPECIAL COVERAGE 10420

A copy of Special Coverage Bulletin 10420 is provided on the ATT_1_GM disk; in the folder labeled "Q_03, in the file labeled "Special Coverage 10420".

- 4. Please explain in further detail GM's decision to only recall a portion of the mats. In your explanation, please identify the research, testing, analysis, claims, field report, complaints, incident, or other information that supported GM's rationale for excluding certain CTS vehicles from the 10V-644 recall population.**

GM's decision to recall some 2005 – 2007 MY Cadillac CTS vehicles was based on the identification and analysis of specific design and process issues that

caused a related increase and decline in warranty returns. As explained in detail below these design and process issues that caused related changes in the warranty return rate occurred during two of four vehicle build periods.

The population of 2005 – 2007 MY Cadillac CTS vehicles produced can be divided into four build periods based on the PSS mat incorporated in the seat assembly that was installed in the vehicle at the time the vehicle was built.

- First build period Start of Production (SOP) May 2004 to August 31, 2004 (Safety Recall);
 - In the initial vehicle build period, the center portion of the IEE PSS mat was prone to z-folding due to insufficient adhesion. On September 1, 2004 a design change was implemented that reduced the z-folding by adding 3 pieces of tape to the center of the seat; 2 pieces of tape between felt and 3D mesh and 1 piece of tape between 3D mesh and the seat foam. See the ATT_2_GM_CONF disk; in the folder labeled "Q_04", in the file labeled "Figure 1".
- Second build period September 1, 2004 to May 31, 2005 (Special Coverage);
 - This period began with the design change that reduced the z-folding by adding 3 pieces of tape to the center of the seat implemented on September 1, 2004. This period showed an improved warranty rate for vehicles produced through May 31, 2005.
- Third build period June 1, 2005 to February 18, 2007 (Safety Recall);
 - This third period began on June 1, 2005 with a process spill at Lear in which issues with the seat binders on the top surface of the seat caused folding in the sensor mat during seat assembly at Lear. In November 2005, Lear addressed these issues with a change to the 4 seat binders on the top surface of the seat. The 4 seat binders were replaced with tape because the binders were not holding the mat in place after the cushion was trimmed at Lear. This change caused a rise in the warranty returns due to an increase in stresses in the sensor mat and continued through the third vehicle build period. Some vehicles built during this period also contained an improved tail stiffener between the mat and the Electronic Control Unit (ECU) that was phased in beginning in August 2006. See the ATT_2_GM_CONF disk; in the folder labeled "Q_04", in the file labeled "Figure 2".
- Fourth build period February 19, 2007 to June 2007 End of Production (EOP) (Special Coverage);

- o The fourth and final build period began with a change in which the 2 forward pieces of tape on the top of the seat foam bolsters were moved outward and rearward, reducing the stresses in the mat and improving the rate of warranty returns. See the ATT_2_GM_CONF disk; in the folder labeled "Q_04", in the file labeled "Figure 3".

GM analyzed the PPS warranty data. The most effective method of analyzing the warranty data is by searching for warranty claims containing any of three service part numbers for the seat cushion module which includes the PSS mat and seat foam. The design and process issues that caused a related rise and fall in the rate of warranty returns are shown on the month-of build plot of the warranty data. See the ATT_2_GM_CONF disk; in the folder labeled "Q_04", in the file labeled "Figure 4".

In the week of November 29, 2010 GM also searched the TREAD system database for any injury records associated with this issue. No associated injuries or fatalities were identified.

- 5. Please provide updated to current claims, field report, complaints, incident, or other field information on the recall population. Please provide the same information, and in the same manner or format, as to the vehicles covered by the service policy. Provide this information in Microsoft Access or Microsoft Excel tables.**

The requested GM field reports, complaints, incident or other field information for the recall population are provided on the ATT_1_GM disk; refer to the Microsoft Access folder labeled "Q_05", refer to the file labeled "GM_Records_Recall".

The requested GM field reports, complaints, incident or other field information for the special coverage population are provided on the ATT_1_GM disk; refer to the Microsoft Access folder labeled "Q_05", refer to the file labeled "GM_Records_Special Coverage".

The requested GM warranty claims, Motorists Insurance Corporation (MIC) and Universal Warranty Corporation (UWC) service contract claims for the recall population are provided on the ATT_1_GM disk; refer to the Microsoft Access folder labeled "Q_05", refer to the file labeled "Warranty_Data_Recall".

The requested GM warranty claims, Motorists Insurance Corporation (MIC) and Universal Warranty Corporation (UWC) service contract claims for the special coverage population are provided on the ATT_1_GM disk; refer to the Microsoft Access folder labeled "Q_05", refer to the file labeled "Warranty_Data_Special Coverage".

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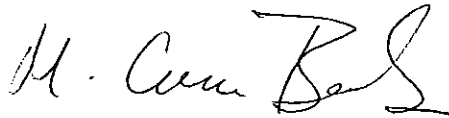
This response is based on searches of General Motors (GM) locations where documents determined to be responsive to your request would ordinarily be found.

GM claims that certain information, in documents that are part of lawsuit and claims files maintained by the GM Legal Staff, is attorney work product and/or privileged. That information includes notes, memos, reports, photographs, and evaluations by attorneys (and by consultants, claims analysts, investigators, and engineers working at the request of attorneys). GM is producing responsive documents from claims files that are neither attorney work product nor privileged, and withholding those that are attorney work product and/or privileged.

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

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

Sincerely,



M. Carmen Benavides
Director, Product Investigations
and Safety Regulations

Attachments