MOTORS LLC
Global Vehicle Safety

USG 4947
June 19, 2020

The Honorable James Owens
Acting Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Subject: Petition for Determination of Inconsequential Noncompliance;
FMVSS 302 Flammability of Interior Materials
NHTSA Recall No. 20V318

Acting Administrator Owens:

Pursuant to 49 C.F.R. § 556 and 49 U.S.C. §§ 30118(d) and 30120(h), General Motors LLC ("**GM**") petitions the National Highway Traffic Safety Administration ("**NHTSA**") for an exemption from the notification and remedy requirements of the U.S. National Traffic and Motor Vehicle Safety Act (the "**Safety Act**") for a noncompliance to Federal Motor Safety Standard ("**FMVSS**") No. 302 Flammability of Interior Materials, because the noncompliance is inconsequential to motor vehicle safety (this "**Petition**").

In accordance with 49 C.F.R. §556.4(b)(6), GM has submitted a 49 C.F.R. §573 noncompliance notification report to NHTSA (NHTSA ID: 20V318 – three copies attached), which provides additional details regarding the noncompliance, including the number of vehicles and vehicle models affected.

Based on the explanation of the issue and the reasons stated below, GM believes this noncompliance to S4.3(a) of FMVSS 302 is inconsequential to motor vehicle safety and requests an exemption from the recall and remedy provisions of the Safety Act for this noncompliance.

If you have questions regarding this petition, please contact me or Matthew Jerinsky of the GM Washington DC office.

Sincerely,

John Capp
Director,
Global Safety Technology & Strategy

Mail Code: 480 210 2V
29427 Louis Chevrolet Rd MI 48093-2350

I. Background: Non-Compliance Summary and Seat Assembly

A. Noncompliance Description

The seat cushions in certain 2017-2020 model-year Cadillac XT5, 2020 model-year Cadillac XT6, and 2017-2019 model-year GMC Acadia vehicles equipped with ventilated front seats fail to conform, in part, to S4.2 of Federal Motor Vehicle Safety Standard (FMVSS) No. 302, "Flammability of interior materials." Because certain components (or composite layers) of the seat-vent mat assembly ("vent bags") do not "adhere to other material(s) at every point of contact," each should be tested separately. When the four composite layers are tested separately, only one composite layer did not meet the burn rate requirement. All other components of the seat required to meet FMVSS No. 302 comply with the standard.

The one noncompliant "layer" is a composite consisting of five different materials, and only one of the five—a very thin pressure sensitive adhesive tape ("adhesive tape")—is an issue from a flammability perspective, and it is only an issue for purposes of complying with the 102 mm/min requirement when the test sample also contains a cushion scrim ("scrim") that shields the flame from the self-extinguishing foam just above it. And that unique combination that includes the adhesive tape, scrim, and a small amount of foam only exists in an FMVSS 302 test sample—it does not exist as a stand-alone group of materials exposed to flame in real-world vehicle seats. As installed in the seat, the very thin adhesive tape and scrim are roughly 11.4 mm from the occupant air space underneath the seat and are sandwiched among many other materials, including the self-extinguishing seat foam.

B. The Vent Bag Assembly

The vent bags assembly (or "vent bags") in the subject vehicles is shown below in Figure 1. The vent bags are designed to pull air into and through the seat to cool the occupant.

FIGURE 1 – Seat Vent Bag and Lower Seat Cushion

The vent bag is positioned below the seat cushion and attaches via a very thin adhesive strip to the lower seat cushion shown on the bottom left of Figure 1.

The vent bags are comprised of multiple layers of materials as shown below in Figure 2.

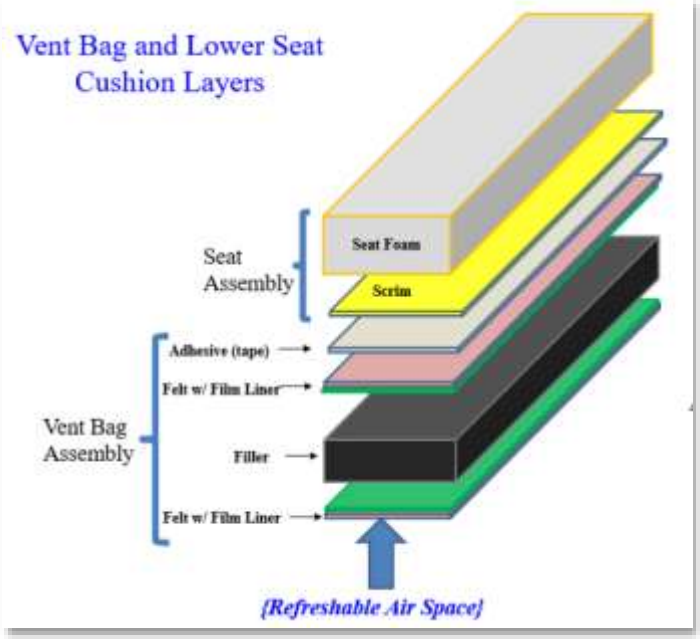


FIGURE 2 – Vent Bag and Lower Seat Cushion Material Layers

The scrim layer shown in yellow in Figure 2 above does not extend uniformly in a layer as illustrated above. It is localized around the seat foam. The scrim can be seen in the lower picture in Figure 3 below—it is the white material that surrounds the black seat foam. That picture is a bottom-side view of the underside of the seat cushion.

FIGURE 3 – Lower Seat Cushion

Depending on the location of the sample cut for FMVSS 302 testing, the sample may not have any scrim if cut in the center, or it may have scrim if cut closer to the edges of the seat.

C. The Rule – FMVSS 302

FMVSS 302 S4.3 requires that any portion of a single or composite material which is within 13 mm of the occupant compartment air space shall meet the 102 mm per minute burn-rate requirement.

Any material that does not adhere to other materials at every point of contact must meet the 102 mm per minute burn rate requirements when tested separately. Because the filler material within the vent bag was not adhered at every point of contact with the composite layer above, the 13 mm was measured from the base of the composite layer starting with the felt w/film liner and, for layer 3, includes a small portion of scrim. The 13 mm layer 3 created for FMVSS 302 testing purposes has just the right combination of adhesive tape and scrim along with a truncated seat foam layer that it does not meet the 102 mm/min burn rate requirements.

D. The Layers Tested

Figures 4A and 4B below, illustrate the 4 layers of the vent bag assembly that must be tested separately for FMVSS 302. Figure 4A identifies the 4 layers and their thicknesses and Figure 4B describes the material(s) that make up the testable layers.

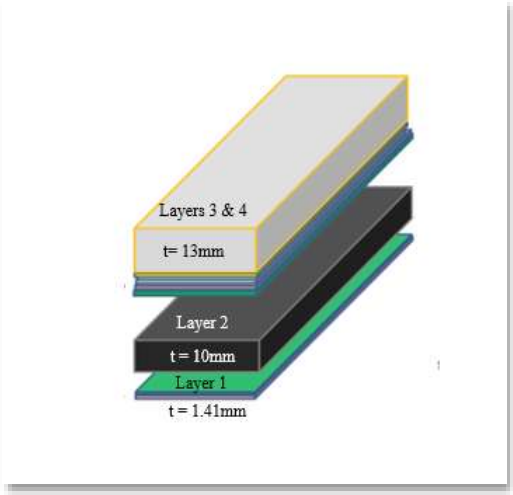


FIGURE 4A - Layers

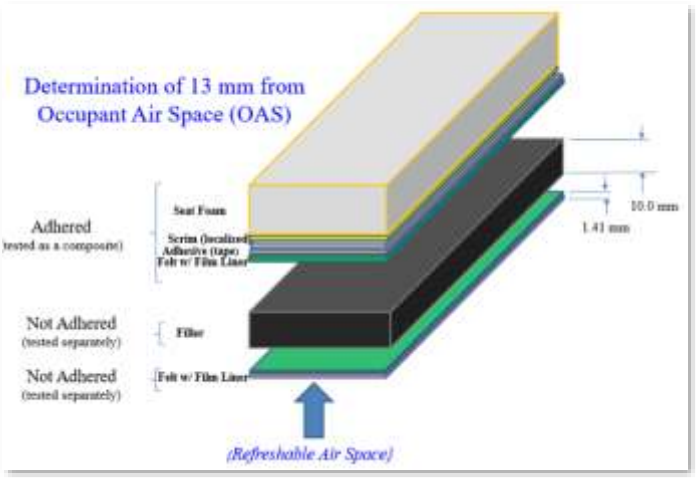


FIGURE 4B – Material Descriptions

For orientation purposes, Layer 1 is adjacent to the occupant airspace under the seat. Layers 3 and 4 are closest to the seated occupant but furthest from the airspace under the seat.

The following materials make up each layer:

- Layer 1: Bottom Felt (Purple) + Film (Green)
- Layer 2: Filler (Black)
- Layer 3: Film (Green)+ Top Felt (Purple) + PSA tape + Cushion Scrim + Cushion Foam (Gray)
- Layer 4: Film (Green)+ Top Felt (Purple) + PSA tape + Cushion Foam (Gray)

Layers 3 and 4 are adhered at all points and are tested as a composite as shown in Figure 5. The seat foam is cut to comply with S4.2.2, which requires a maximum composite thickness of 13mm. The cut line is illustrated in Figure 5.

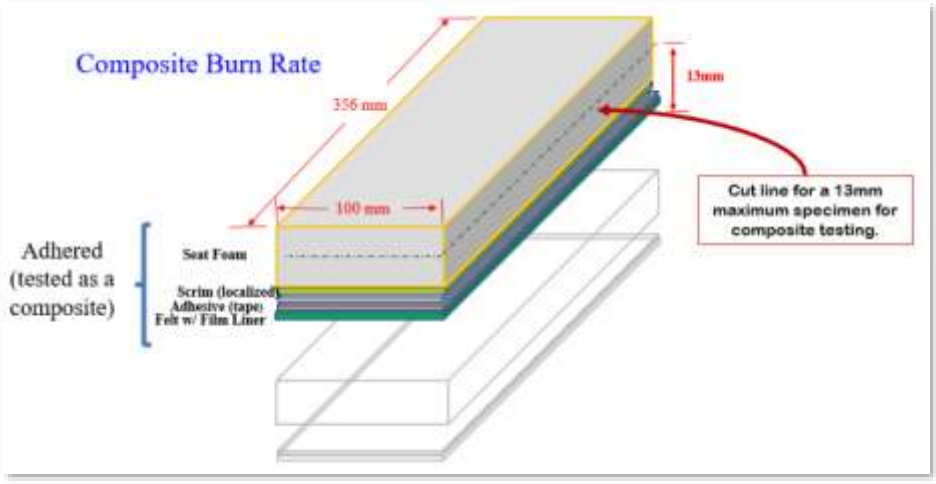


FIGURE 5 – Illustration of Layers 3 and 4 Composite Test Sample

The difference between layer 3 and layer 4 is the presence of scrim. Two samples (layers 3 and 4) were taken of the composite material at different locations of the seat to ensure one captured the scrim. Layer 3 was cut to capture scrim and layer 4 was cut closer to the

center of the seat and does not capture any scrim. Figure 6 below shows the cut locations of layers 3 and 4.

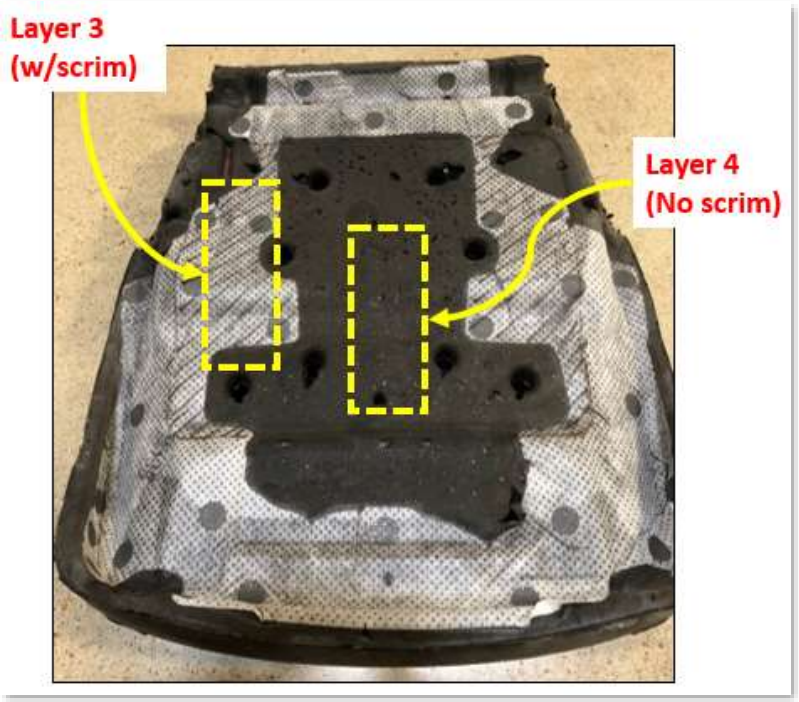


FIGURE 6 – Cut Locations of Layers 3 and 4

The only layer that did not meet FMVSS 302 is layer 3. All other layers meet the burn rate requirements.

When testing layer 3 in accordance with FMVSS 302, which required a flame applied directly to the felt with film liner (see Figure 7 below), the burn rates ranged from 186 mm/min to 189 mm/min and did not pass the requirements of FMVSS 302 S4.3(a). Layer 4, however, which is the same composite but without the scrim, had a burn rate of only 12 mm/min to 24 mm/min.

FIGURE 7 - Anatomy

The higher burn rates for layer 3 were caused by the unique interaction of the adhesive

tape, scrim, and truncated seat foam. The scrim is actually flame-retardant, but the thin layer of adhesive tape is not. In layer 3, the scrim shields the flame from interacting with and being slowed down or extinguished by the self-extinguishing foam above. With layer 4, which had a much lower burn rate, the foam has a bigger effect and significantly slows down the burn rate.

II. The Non-compliance is Inconsequential to Motor Vehicle Safety

GM believes that this FMVSS 302 non-compliance is inconsequential to motor vehicle safety for at least the following reasons:

- The seat vent bag assembly as installed in the vehicle meets the FMVSS 302 flammability requirements.

- The purpose of FMVSS 302 is to "reduce the deaths and injuries to motor vehicle occupants caused by vehicle fires, especially those originating in the interior of the vehicle from sources such as matches or cigarettes." The two materials causing the FMVSS 302 issue—the adhesive tape and scrim—would never be exposed to open flame or an ignition source (like matches or cigarettes) in their installed application, because they are installed within and surrounded by complying materials, including the self-extinguishing seat foam, that meet FMVSS 302.

- GM testing and design review of the vent bag assembly and its components indicate that the chance of fire or flame induced by a malfunctioning seat ventilator is essentially zero.

- The flammable adhesive tape is a very small portion of the soft mass of the seat and has an insignificant (i.e., negligible) adverse effect on the overall burn rate as demonstrated by layer 4's low burn rate.

- The same seats comprised of the same materials meet all aspects of FMVSS 302 when heat is applied during assembly, thereby adhering layers 2 and 3.

- GM is not aware of any data suggesting that fires have occurred in the field due to the noncompliant condition.

- NHTSA has granted similar inconsequential petitions in the past.

Each of these arguments are addressed further below.

A. The seat vent bag assembly as installed in the vehicle meets FMVSS 302 flammability requirements.

As installed in the vehicle, the vent bag meets FMVSS 302 requirements. The flammability issue is created not by the materials in the seat but by the unique way in which the 100 x 356 mm section is selected for purposes of FMVSS 302 testing. When that section is taken from the edge of the seat, the 13 mm composite contains portions of scrim which, in combination with the adhesive tape, increases the burn rate of that sample (i.e., layer 3). FMVSS 302 requires the flame to be applied directly to the felt w/film liner, which is adjacent to the adhesive tape and cushion scrim, and that interaction limited the foam's ability to slow down the burn rate and resulted in a rate exceeding the 102 mm per minute requirement.

In the real world, however, the adhesive tape and scrim would never be exposed to an open flame because they are well encased from the airspaces below (and above) the seat by layers of self-extinguishing or flammability compliant materials. Specifically, as shown in Figure 8, below, the scrim is encased by at least 11.4 mm of materials from the air space below.

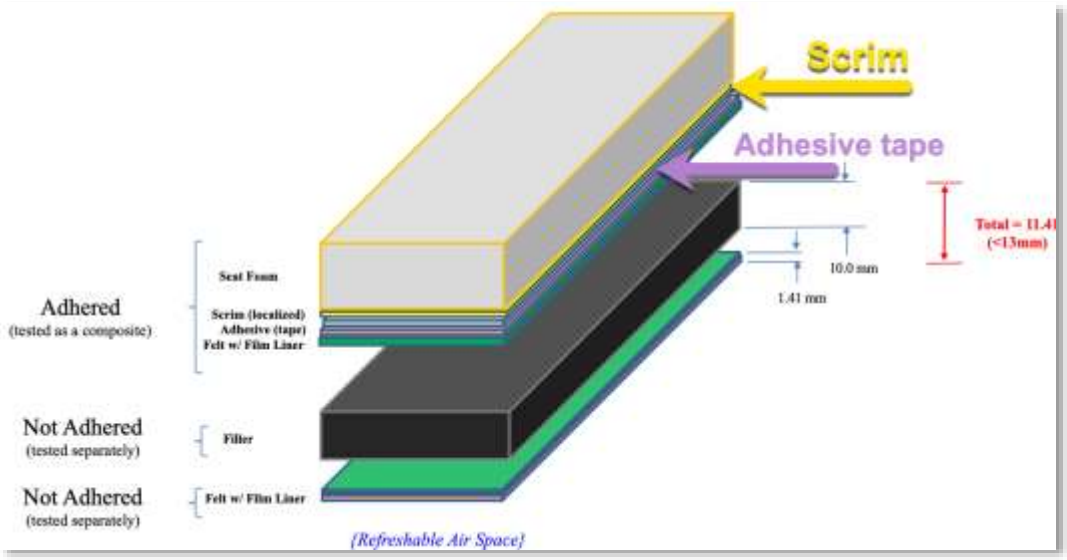


FIGURE 8 – Scrim Material Location

Encasing the scrim from the airspace below are two layers of the felt w/film liner, the filler, and the adhesive tape. The felt w/film liner has a burn rate of 42 mm/min and the filler is self-extinguishing. Moreover, the as-installed seat has more than 13 mm of self-extinguishing seat foam above the adhesive tape and scrim, and the scrim is localized and only exists in certain areas as shown above in Figure 6. Taken as a whole, the adhesive tape and scrim have a negligible effect on the overall burn rate. Layer 4, which is a closer representation of the relative percentage of component materials, has a burn rate of only 12 mm/min to 24 mm/min.

The purpose of FMVSS 302 is to "reduce the deaths and injuries to motor vehicle occupants caused by vehicle fires, especially those originating in the interior of the vehicle from sources such as matches or cigarettes." The combination of adhesive tape, scrim, and truncated seat foam that is causing the FMVSS 302 issue would never be exposed to an open flame or an ignition source (like matches or cigarettes) in its installed application, because they are installed within and surrounded by complying materials that meet FMVSS 302. In the real-world, a flame emanating from the occupant air space below the seat must travel through the felt w/film liner and the filler before even having the potential to contact the adhesive layer or scrim.

Notably, the same seat with the same vent bag and same materials passed the FMVSS 302 flammability tests when layer 2 (filler) is adhered to the felt liner above. This was the case with seats assembled at the supplier's China plant, all of which passed FMVSS 302 testing. The only difference between the compliant seats and the ones subject to this petition is that heat was applied during assembly which caused the adhesion between the filler and the felt liner. (See Section D below). The fact that the same seats assembled in China meet FMVSS 302 further demonstrates that the subject vent bag and seat materials do not present a flammability concern or a motor vehicle safety issue in a real-world vehicle application.

B. GM testing and design review of the vent bag assembly and its components indicate that the chance of fire or flame induced by a malfunctioning ventilator is essentially zero.

Unlike the situation in Toyota's February 21, 2014 petition for inconsequentiality, which NHTSA granted,[1] there are no heater elements in GM's seat. In contrast, the subject seats contain a seat ventilator which circulates unheated air. The ventilator and associated motor are at least 27 mm from the adhesive tape and scrim and are separated by self-extinguishing and flammability-compliant materials. There is essentially zero risk that the seat ventilator or the associated motor could cause the seat materials to ignite.

C. The adhesive tape is a very small portion of the soft mass of the seat and has an insignificant (i.e., negligible) adverse effect on the overall burn rate.

The adhesive tape is only 0.03% of the seat mass and is positioned well above (>11.4mm) the occupant air space within the seat material stack. As installed in the vehicle, the adhesive tape makes up such an extremely small portion of the seat that its burn rate will have essentially no adverse effect on the burn rate of the vent bag assembly. Therefore, the adhesive tape would have an insignificant adverse effect on the interior material burn rate and the potential for occupant injury due to interior fire.

D. The same seats comprised of the same materials meet FMVSS 302.

The exact same seats with the exact same materials meet FMVSS 302 when heat is used during the assembly process, which results in the filler layer (layer 2) adhering to the upper felt with film material of layers 3 and 4. The vent bags in the subject seats are assembled using a "radio frequency" welding process to adhere the filler to the upper felt with film liner, and that process does not create sufficient adhesion for FMVSS 302 purposes. However, when these same seats are assembled at the supplier's plant in China, where they use a "heated surface" molding during assembly, the filler and "upper" felt with film liner are sufficiently adhered for purposes of FMVSS 302 – i.e., they are adhered "at every point of contact" – and are therefore considered a "composite" under FMVSS 302, S4.2.2. The relevant adhesive surface is shown in Figure 9, below.

[1] *See* 63 Fed. Reg. / Vol. 80, No. 16 / Jan. 26, 2015

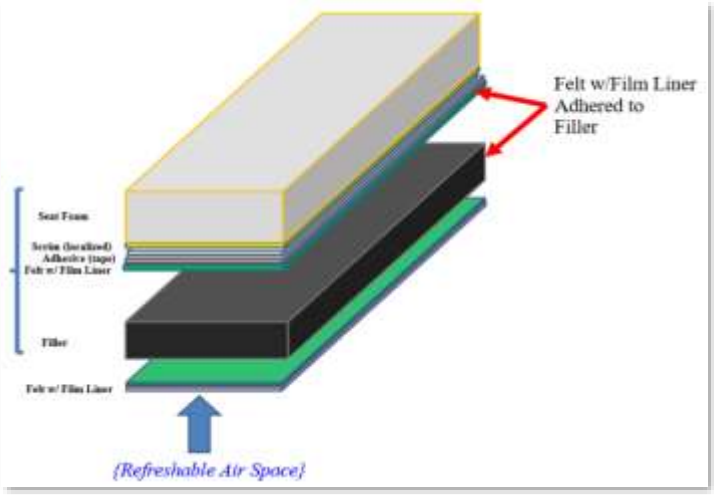
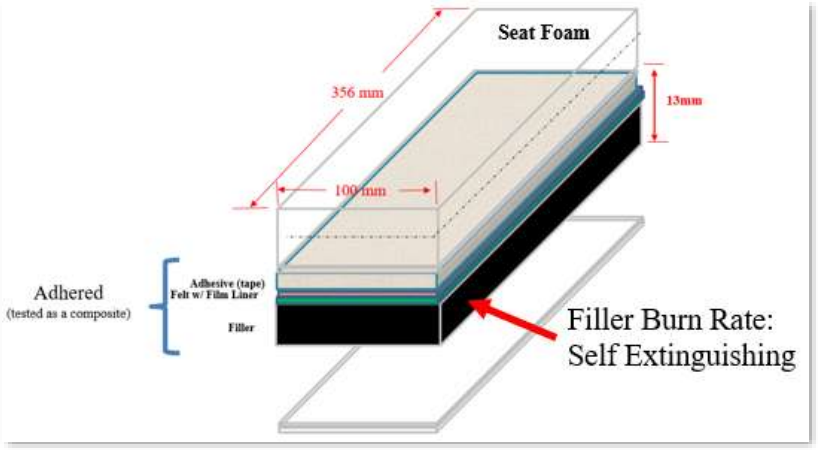


FIGURE 9 – Compliant Vent Bag from Supplier's China Plant

The only difference between the compliant vent bags assembled in China and those used in the subject vehicles is the level of adhesion between the filler and felt illustrated above. The vent bag and seat material, the material thickness, and the stack up of materials from the occupant air space is identical.

Since the upper felt w/film liner adheres to the filler, the filler is included in the composite stack as shown in Figure 10. The applied flame must travel through the filler (thickness: 10mm, burn rate: SE) layer prior to contacting the adhesive tape, in the upper composite material. The new composite burn rate is SE to 53 mm/min.



(Refreshable Air Space)

FIGURE 10 – Alternate Construction Process Composite Test Sample

E. GM is Not Aware of any Injuries or Customer Complaints Associated with this Condition

GM is not aware of any fires, injuries or complaints associated with this condition.

III. NHTSA has granted similar inconsequential petitions in the past.

NHTSA has granted at least two petitions for inconsequentiality for similar issues. For example, in Toyota's Feb. 2014 petition for inconsequential noncompliance, Toyota made the following arguments that apply equally to GM's seats[2]:

- The testing shows that the seat heater assemblies comply with FMVSS No. 302 when tested as a "composite" as installed in the vehicle, i.e., along with surrounding FMVSS 302 compliant materials.
- The noncompliant material at issue would normally not be exposed to open flame or ignition sources (like matches or cigarettes) in its installed application, because it is surrounded by complying materials that meet FMVSS No. 302.

NHTSA also granted a petition for inconsequential noncompliance to Cosco Inc. in 1998 for a similar issue.[3] In that case, NHTSA found that the noncomplying fiberfill incorporated into a pillow located in a child restraint was inconsequential to safety due to the unlikely event of exposure to an ignition source since the non-compliant material was encased in material which complied with FMVSS 302. Those reasons also apply to GM's seats. As explained in more detail above, the subject GM seat and vent bag assembly also pass FMVSS 302 requirements when tested as a composite and the subject materials (adhesive tape and scrim) will not be exposed to a direct ignition source in a real-world application because the non-compliant material is encased in material which complies with FMVSS 302.

IV. Correction of Non-compliance

To address this technical noncompliance, GM's suppliers will use the "heated surface" molding process explained above, which results in the filler and felt-with-film liner to be adhered at all points. This process will be used to correct the non-compliant vehicles in production and parts in service inventory. Through testing, GM confirmed that the vent bags assembled with this process comply with S4.3(a) for FMVSS 302.

This noncompliance issue was addressed in production for all applicable vehicles manufactured on or after May 26, 2020.

V. <u>Conclusion</u>

For the reasons set forth above, GM believes that this noncompliance to S4.3 of FMVSS 302 is inconsequential to motor vehicle safety and GM requests an exemption from the recall and remedy provisions of the Safety Act for this population of vehicles.

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[2] *See* 80 Fed. Reg. 4035 (Jan. 26, 2015).

[3] *See* 63 Fed. Reg. 30809 (June 5, 1998).

N202298520 Non-Compliance Inconsequential DUE to NHTSA: Friday, May 29, 2020

Title: Ventilated Seats FMVSS 302 Non-Compliance

Title is not part of the 573 submission, but may appear on VIN lookup, Global Warranty, bulletins, or submissions to other agencies

Information must be submitted by the due date at NHTSA's recall portal https://map.safercar.gov/mportal/signin
Note: Cell entries over 2000 characters will have to entered as attachments

☑ **Yes - Petition for Inconsequential Noncompliance 49 CFR 556**

Vehicle Information

573.6 (c) (1) (2) (3) (4)

Model Year(s), Make, Model	Descriptive Information • The basis for how the recall population was determined and • How the recalled products differ from products that were not included in the recall • Identify the number of affected products related to this specific make/model/model year combination, where available	Beginning Production Date (mm/dd/yyyy)	Ending Production Date (mm/dd/yyyy)
2017-2020 Cadillac XT5	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 65,942 Cadillac XT5 vehicles affected by this recall.	10/29/2015	3/20/2020
2020 Cadillac XT6	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 15,601 Cadillac XT6 vehicles affected by this recall.	2/25/2019	3/20/2020

2017-2019 GMC Acadia	Manufacturing records were used to identify vehicles built with the affected ventilated seats. Vehicles with non-ventilated seats are not affected. There are 85,395 GMC Acadia vehicles affected by this recall.	1/22/2016	7/24/2019

Total Population

Number Potentially Involved	166,938	Estimated Percentage of Involved With Defect	100

Defect / Noncompliance Description **573.6 (c) (5)**

Describe the defect or noncompliance:
General Motors has decided that certain 2017-2020 model-year Cadillac XT5, 2020 model-year Cadillac XT6, and 2017-2019 model-year GMC Acadia vehicles equipped with ventilated front seats fail to conform, in part, to S4.2 of Federal Motor Vehicle Safety Standard (FMVSS) No. 302, "Flammability of interior materials." Because certain components (or composite layers) of the seat-vent mat assembly do not "adhere to other material(s) at every point of contact," each should be tested separately. When the four composite layers are tested separately, one composite layer did not meet the burn rate requirement. All other components of the seat required to meet FMVSS No. 302 comply with the standard.
Describe the safety risk:
GM believes the risk to motor vehicle safety is inconsequential. Although the layers are not joined with adhesive, they are sonically-welded together at certain points of contact and, when tested together as a composite, pass all burn rate tests.
(Optional) Describe the cause:
The seat supplier did not perform the FMVSS 302 compliance testing properly when certifying the seat cushions. Specifically, the supplier did not correctly identify the composite layers that needed to be tested separately.
(Optional) Identify any warning which can precede or occur:
[intentionally left blank]

Does this recall only affect products in certain geographic regions?	No

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

- (●) Information is for Component Manufacturer
- ( ) Component manufacturer is unknown, information is for our supplier

Company Name, Address:	Company Contact (Name, Position, Phone, email):
Seat-Vent Mat Supplier: IGB Automotive Ltd. 3090 Marentette Ave. Windsor, ON N8X4G2	Vladimir Stajic Program Manager (519)250-5777

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

(●) Information is for Component Manufacturer

( ) Component manufacturer is unknown, information is for our supplier

Seat Supplier (1 of 2): Adient 49200 Halyard Drive Plymouth MI 48170 USA	Phil Rider Sales (734) 254-5000
Seat Supplier (2 of 2): Magna 30020 Cabot Dr, Novi, MI 48377	Chris Russell Sales (248) 567-4000

Involved Components **49 U.S.C. §30119(g)**

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Recalled Component Name:	MAT ASM-F/SEAT VENT FAN
Recalled Component Description:	Front Seat-Vent Mat Assembly – Driver or Passenger
Recalled Component Part Number:	84277542, 84757088

Chronology of Defect / Noncompliance Determination **573.6 (c) (6) (7)**

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision:

On February 17, 2020, during validation for 2021 model-year Cadillac XT6 vehicles, GM's seat validation group reviewed the seat suppliers' FMVSS 302 flammability testing for ventilated seats. As part of that review, the seat supplier appeared to have incorrectly identified the relevant layers of the seat that needed to be tested separately. For purposes of FMVSS 302 testing, the relevant layers of the seat are contained within the seat-vent mat assembly, which is supplied by IGB to the seat suppliers, Adient and Magna. When identifying the relevant layers for testing, the seat suppliers appeared not to strictly follow the direction in S4.2.1, which requires "any material that does not adhere to other material(s) at every point of contact" to "meet the requirements of S4.3 when tested separately." The seat suppliers did not account for the lack of adhesion between the filler and the rest of the seat-vent mat assembly. When the correct layers of the ventilated seats were subsequently tested separately in accordance with the FMVSS 302, one of the four layers did not meet the burn rate requirement of 102 mm/min. The issue was reported through GM's Speak Up For Safety (SUFS) program on February 21, 2020. On February 24, 2020, GM opened an investigation.

On March 5, 2020, after completing a review of material lists and test data from the seat-vent mat supplier (IGB), GM's investigator determined that seat-vent mats produced at IGB's China facility (which are used for markets outside the US) meet FMVSS 302 while the vent mats produced at IGB's Mexico facility (used for the subject vehicles) do not. The same seat-vent mat materials are used at both facilities, but the assembly process differs. The China facility incorporates a heat application that creates a bond or adherence between the filler material and the vent-mat layers above it, which alters the makeup of the layers that need to be tested separately based on S.4.2.1 of FMVSS 302. GM believes that its testing shows that the assembly process used by IGB in Mexico has no impact on the flammability properties of the seat assembly as a whole.

This case was reviewed by GM's Open Investigation Review Board on May 20, and on May 21, 2020, GM's Safety and Field Action Decision Authority (SFADA) decided that the condition was a technical noncompliance with FMVSS 302.

Identify the Remedy

573.6 (c) (8)

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Remedy:
GM intends to petition NHTSA for an exemption from the notice and remedy provisions of the Federal Motor Vehicle Safety Act.

Reimbursement Plan:
[Intentionally left blank]

Describe what distinguishes the remedy component from the recalled component.
[Intentionally left blank]
(Optional) Identify and describe how and when the recall condition was corrected in production:
This issue was addressed in production for all applicable vehicles manufactured on or after May 26, 2020. Some vehicles produced prior to May 26, 2020 were contained at the plant and corrected prior to shipment.

Identify the Recall Schedule

Describe the recall schedule for notifications:	
[Intentionally left blank]	
Planned Dealer Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Dealer Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Manufacturer's identification code for this recall:	N202298520

(Optional) Manufacturer's Comment to NHTSA Staff:

N202298520 Non-Compliance Inconsequential DUE to NHTSA: Friday, May 29, 2020

Title: Ventilated Seats FMVSS 302 Non-Compliance

Title is not part of the 573 submission, but may appear on VIN lookup, Global Warranty, bulletins, or submissions to other agencies

Information must be submitted by the due date at NHTSA's recall portal https://map.safercar.gov/mportal/signin
Note: Cell entries over 2000 characters will have to entered as attachments

☑ **Yes - Petition for Inconsequential Noncompliance 49 CFR 556**

Vehicle Information

573.6 (c) (1) (2) (3) (4)

Model Year(s), Make, Model	Descriptive Information • The basis for how the recall population was determined and • How the recalled products differ from products that were not included in the recall • Identify the number of affected products related to this specific make/model/model year combination, where available	Beginning Production Date (mm/dd/yyyy)	Ending Production Date (mm/dd/yyyy)
2017-2020 Cadillac XT5	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 65,942 Cadillac XT5 vehicles affected by this recall.	10/29/2015	3/20/2020
2020 Cadillac XT6	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 15,601 Cadillac XT6 vehicles affected by this recall.	2/25/2019	3/20/2020

2017-2019 GMC Acadia	Manufacturing records were used to identify vehicles built with the affected ventilated seats. Vehicles with non-ventilated seats are not affected. There are 85,395 GMC Acadia vehicles affected by this recall.	1/22/2016	7/24/2019

Total Population

Number Potentially Involved	166,938	Estimated Percentage of Involved With Defect	100

Defect / Noncompliance Description **573.6 (c) (5)**

Describe the defect or noncompliance:
General Motors has decided that certain 2017-2020 model-year Cadillac XT5, 2020 model-year Cadillac XT6, and 2017-2019 model-year GMC Acadia vehicles equipped with ventilated front seats fail to conform, in part, to S4.2 of Federal Motor Vehicle Safety Standard (FMVSS) No. 302, "Flammability of interior materials." Because certain components (or composite layers) of the seat-vent mat assembly do not "adhere to other material(s) at every point of contact," each should be tested separately. When the four composite layers are tested separately, one composite layer did not meet the burn rate requirement. All other components of the seat required to meet FMVSS No. 302 comply with the standard.
Describe the safety risk:
GM believes the risk to motor vehicle safety is inconsequential. Although the layers are not joined with adhesive, they are sonically-welded together at certain points of contact and, when tested together as a composite, pass all burn rate tests.
(Optional) Describe the cause:
The seat supplier did not perform the FMVSS 302 compliance testing properly when certifying the seat cushions. Specifically, the supplier did not correctly identify the composite layers that needed to be tested separately.
(Optional) Identify any warning which can precede or occur:
[intentionally left blank]

Does this recall only affect products in certain geographic regions?	No

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

- (●) Information is for Component Manufacturer
- ( ) Component manufacturer is unknown, information is for our supplier

Company Name, Address:	Company Contact (Name, Position, Phone, email):
Seat-Vent Mat Supplier: IGB Automotive Ltd. 3090 Marentette Ave. Windsor, ON N8X4G2	Vladimir Stajic Program Manager (519)250-5777

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

(●) Information is for Component Manufacturer

( ) Component manufacturer is unknown, information is for our supplier

Seat Supplier (1 of 2): Adient 49200 Halyard Drive Plymouth MI 48170 USA	Phil Rider Sales (734) 254-5000
Seat Supplier (2 of 2): Magna 30020 Cabot Dr, Novi, MI 48377	Chris Russell Sales (248) 567-4000

Involved Components **49 U.S.C. §30119(g)**

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Recalled Component Name:	MAT ASM-F/SEAT VENT FAN
Recalled Component Description:	Front Seat-Vent Mat Assembly – Driver or Passenger
Recalled Component Part Number:	84277542, 84757088

Chronology of Defect / Noncompliance Determination **573.6 (c) (6) (7)**

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision:

On February 17, 2020, during validation for 2021 model-year Cadillac XT6 vehicles, GM's seat validation group reviewed the seat suppliers' FMVSS 302 flammability testing for ventilated seats. As part of that review, the seat supplier appeared to have incorrectly identified the relevant layers of the seat that needed to be tested separately. For purposes of FMVSS 302 testing, the relevant layers of the seat are contained within the seat-vent mat assembly, which is supplied by IGB to the seat suppliers, Adient and Magna. When identifying the relevant layers for testing, the seat suppliers appeared not to strictly follow the direction in S4.2.1, which requires "any material that does not adhere to other material(s) at every point of contact" to "meet the requirements of S4.3 when tested separately." The seat suppliers did not account for the lack of adhesion between the filler and the rest of the seat-vent mat assembly. When the correct layers of the ventilated seats were subsequently tested separately in accordance with the FMVSS 302, one of the four layers did not meet the burn rate requirement of 102 mm/min. The issue was reported through GM's Speak Up For Safety (SUFS) program on February 21, 2020. On February 24, 2020, GM opened an investigation.

On March 5, 2020, after completing a review of material lists and test data from the seat-vent mat supplier (IGB), GM's investigator determined that seat-vent mats produced at IGB's China facility (which are used for markets outside the US) meet FMVSS 302 while the vent mats produced at IGB's Mexico facility (used for the subject vehicles) do not. The same seat-vent mat materials are used at both facilities, but the assembly process differs. The China facility incorporates a heat application that creates a bond or adherence between the filler material and the vent-mat layers above it, which alters the makeup of the layers that need to be tested separately based on S.4.2.1 of FMVSS 302. GM believes that its testing shows that the assembly process used by IGB in Mexico has no impact on the flammability properties of the seat assembly as a whole.

This case was reviewed by GM's Open Investigation Review Board on May 20, and on May 21, 2020, GM's Safety and Field Action Decision Authority (SFADA) decided that the condition was a technical noncompliance with FMVSS 302.

Identify the Remedy

573.6 (c) (8)

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Remedy:
GM intends to petition NHTSA for an exemption from the notice and remedy provisions of the Federal Motor Vehicle Safety Act.

Reimbursement Plan:
[Intentionally left blank]

Describe what distinguishes the remedy component from the recalled component.
[Intentionally left blank]
(Optional) Identify and describe how and when the recall condition was corrected in production:
This issue was addressed in production for all applicable vehicles manufactured on or after May 26, 2020. Some vehicles produced prior to May 26, 2020 were contained at the plant and corrected prior to shipment.

Identify the Recall Schedule

Describe the recall schedule for notifications:	
[Intentionally left blank]	
Planned Dealer Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Dealer Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Manufacturer's identification code for this recall:	N202298520

(Optional) Manufacturer's Comment to NHTSA Staff:

N202298520 Non-Compliance Inconsequential DUE to NHTSA: Friday, May 29, 2020

Title: Ventilated Seats FMVSS 302 Non-Compliance

Title is not part of the 573 submission, but may appear on VIN lookup, Global Warranty, bulletins, or submissions to other agencies

Information must be submitted by the due date at NHTSA's recall portal https://map.safercar.gov/mportal/signin
Note: Cell entries over 2000 characters will have to entered as attachments

☑ **Yes - Petition for Inconsequential Noncompliance 49 CFR 556**

Vehicle Information

573.6 (c) (1) (2) (3) (4)

Model Year(s), Make, Model	Descriptive Information • The basis for how the recall population was determined and • How the recalled products differ from products that were not included in the recall • Identify the number of affected products related to this specific make/model/model year combination, where available	Beginning Production Date (mm/dd/yyyy)	Ending Production Date (mm/dd/yyyy)
2017-2020 Cadillac XT5	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 65,942 Cadillac XT5 vehicles affected by this recall.	10/29/2015	3/20/2020
2020 Cadillac XT6	Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020. Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall. There are 15,601 Cadillac XT6 vehicles affected by this recall.	2/25/2019	3/20/2020

2017-2019 GMC Acadia	Manufacturing records were used to identify vehicles built with the affected ventilated seats. Vehicles with non-ventilated seats are not affected. There are 85,395 GMC Acadia vehicles affected by this recall.	1/22/2016	7/24/2019

Total Population

Number Potentially Involved	166,938	Estimated Percentage of Involved With Defect	100

Defect / Noncompliance Description **573.6 (c) (5)**

Describe the defect or noncompliance:
General Motors has decided that certain 2017-2020 model-year Cadillac XT5, 2020 model-year Cadillac XT6, and 2017-2019 model-year GMC Acadia vehicles equipped with ventilated front seats fail to conform, in part, to S4.2 of Federal Motor Vehicle Safety Standard (FMVSS) No. 302, "Flammability of interior materials." Because certain components (or composite layers) of the seat-vent mat assembly do not "adhere to other material(s) at every point of contact," each should be tested separately. When the four composite layers are tested separately, one composite layer did not meet the burn rate requirement. All other components of the seat required to meet FMVSS No. 302 comply with the standard.
Describe the safety risk:
GM believes the risk to motor vehicle safety is inconsequential. Although the layers are not joined with adhesive, they are sonically-welded together at certain points of contact and, when tested together as a composite, pass all burn rate tests.
(Optional) Describe the cause:
The seat supplier did not perform the FMVSS 302 compliance testing properly when certifying the seat cushions. Specifically, the supplier did not correctly identify the composite layers that needed to be tested separately.
(Optional) Identify any warning which can precede or occur:
[intentionally left blank]

Does this recall only affect products in certain geographic regions?	No

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

- (●) Information is for Component Manufacturer
- ( ) Component manufacturer is unknown, information is for our supplier

Company Name, Address:	Company Contact (Name, Position, Phone, email):
Seat-Vent Mat Supplier: IGB Automotive Ltd. 3090 Marentette Ave. Windsor, ON N8X4G2	Vladimir Stajic Program Manager (519)250-5777

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.
If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

(●) Information is for Component Manufacturer

( ) Component manufacturer is unknown, information is for our supplier

Seat Supplier (1 of 2): Adient 49200 Halyard Drive Plymouth MI 48170 USA	Phil Rider Sales (734) 254-5000
Seat Supplier (2 of 2): Magna 30020 Cabot Dr, Novi, MI 48377	Chris Russell Sales (248) 567-4000

Involved Components **49 U.S.C. §30119(g)**

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Recalled Component Name:	MAT ASM-F/SEAT VENT FAN
Recalled Component Description:	Front Seat-Vent Mat Assembly – Driver or Passenger
Recalled Component Part Number:	84277542, 84757088

Chronology of Defect / Noncompliance Determination **573.6 (c) (6) (7)**

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision:

On February 17, 2020, during validation for 2021 model-year Cadillac XT6 vehicles, GM's seat validation group reviewed the seat suppliers' FMVSS 302 flammability testing for ventilated seats. As part of that review, the seat supplier appeared to have incorrectly identified the relevant layers of the seat that needed to be tested separately. For purposes of FMVSS 302 testing, the relevant layers of the seat are contained within the seat-vent mat assembly, which is supplied by IGB to the seat suppliers, Adient and Magna. When identifying the relevant layers for testing, the seat suppliers appeared not to strictly follow the direction in S4.2.1, which requires "any material that does not adhere to other material(s) at every point of contact" to "meet the requirements of S4.3 when tested separately." The seat suppliers did not account for the lack of adhesion between the filler and the rest of the seat-vent mat assembly. When the correct layers of the ventilated seats were subsequently tested separately in accordance with the FMVSS 302, one of the four layers did not meet the burn rate requirement of 102 mm/min. The issue was reported through GM's Speak Up For Safety (SUFS) program on February 21, 2020. On February 24, 2020, GM opened an investigation.

On March 5, 2020, after completing a review of material lists and test data from the seat-vent mat supplier (IGB), GM's investigator determined that seat-vent mats produced at IGB's China facility (which are used for markets outside the US) meet FMVSS 302 while the vent mats produced at IGB's Mexico facility (used for the subject vehicles) do not. The same seat-vent mat materials are used at both facilities, but the assembly process differs. The China facility incorporates a heat application that creates a bond or adherence between the filler material and the vent-mat layers above it, which alters the makeup of the layers that need to be tested separately based on S.4.2.1 of FMVSS 302. GM believes that its testing shows that the assembly process used by IGB in Mexico has no impact on the flammability properties of the seat assembly as a whole.

This case was reviewed by GM's Open Investigation Review Board on May 20, and on May 21, 2020, GM's Safety and Field Action Decision Authority (SFADA) decided that the condition was a technical noncompliance with FMVSS 302.

Identify the Remedy

573.6 (c) (8)

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Remedy:
GM intends to petition NHTSA for an exemption from the notice and remedy provisions of the Federal Motor Vehicle Safety Act.

Reimbursement Plan:
[Intentionally left blank]

Describe what distinguishes the remedy component from the recalled component.
[Intentionally left blank]
(Optional) Identify and describe how and when the recall condition was corrected in production:
This issue was addressed in production for all applicable vehicles manufactured on or after May 26, 2020. Some vehicles produced prior to May 26, 2020 were contained at the plant and corrected prior to shipment.

Identify the Recall Schedule

Describe the recall schedule for notifications:	
[Intentionally left blank]	
Planned Dealer Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Dealer Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification Begin Date (mm/dd/yyyy):	[Intentionally left blank]
Planned Owner Notification End Date (mm/dd/yyyy):	[Intentionally left blank]
Manufacturer's identification code for this recall:	N202298520

(Optional) Manufacturer's Comment to NHTSA Staff:

Part 573 Safety Recall Report 20V-318

Manufacturer Name : General Motors LLC
Submission Date : MAY 29, 2020
NHTSA Recall No. : 20V-318
Manufacturer Recall No. : N202298520

Manufacturer Information :

Manufacturer Name : General Motors LLC
Address : 29427 Louis Chevrolet Road
MAIL CODE 480-210-2V WARREN MI 48093
Company phone : 586-596-1733

Population :

Number of potentially involved : 166,938
Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2017-2020 Cadillac XT5
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020.

Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall.

There are 65,942 Cadillac XT5 vehicles affected by this recall.

Production Dates : OCT 29, 2015 - MAR 20, 2020
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 : 2020-2020 Cadillac XT6
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : Manufacturing records were used to identify vehicles built with the affected ventilated seats prior to the issue being fixed in production on May 26, 2020.

Vehicles with non-ventilated seats are not affected. Affected vehicles contained at the plant and corrected prior to shipment are not included in this recall.

There are 15,601 Cadillac XT6 vehicles affected by this recall.

Production Dates : FEB 25, 2019 - MAR 20, 2020
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 3 :	2017-2019 GMC Acadia
Vehicle Type :	
Body Style :	
Power Train :	NR
Descriptive Information :	Manufacturing records were used to identify vehicles built with the affected ventilated seats. Vehicles with non-ventilated seats are not affected. There are 85,395 GMC Acadia vehicles affected by this recall.
Production Dates :	JAN 22, 2016 - JUL 24, 2019

VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Description of Noncompliance :

Description of the Noncompliance :	General Motors has decided that certain 2017-2020 model-year Cadillac XT5, 2020 model-year Cadillac XT6, and 2017-2019 model-year GMC Acadia vehicles equipped with ventilated front seats fail to conform, in part, to S4.2 of Federal Motor Vehicle Safety Standard (FMVSS) No. 302, "Flammability of interior materials." Because certain components (or composite layers) of the seat-vent mat assembly do not "adhere to other material(s) at every point of contact," each should be tested separately. When the four composite layers are tested separately, one composite layer did not meet the burn rate requirement. All other components of the seat required to meet FMVSS No. 302 comply with the standard.
FMVSS 1 :	302 - Flammability of interior materials
FMVSS 2 :	NR
Description of the Safety Risk :	GM believes the risk to motor vehicle safety is inconsequential. Although the layers are not joined with adhesive, they are sonically-welded together at certain points of contact and, when tested together as a composite, pass all burn rate tests.
Description of the Cause :	The seat supplier did not perform the FMVSS 302 compliance testing properly when certifying the seat cushions. Specifically, the supplier did not correctly identify the composite layers that needed to be tested separately.
Identification of Any Warning that can Occur :	NR

Involved Components :

Component Name 1 :	MAT ASM-F/SEAT VENT FAN
Component Description :	Front Seat-Vent Mat Assembly – Driver or Passenger
Component Part Number :	84277542, 84757088

Supplier Identification :

Component Manufacturer

Name :	see attached
Address :	NR
	NR
Country :	NR

Chronology :

see attached

Description of Remedy :

Description of Remedy Program :	GM intends to petition NHTSA for an exemption from the notice and remedy provisions of the Federal Motor Vehicle Safety Act.
How Remedy Component Differs from Recalled Component :	NR
Identify How/When Recall Condition was Corrected in Production :	This issue was addressed in production for all applicable vehicles manufactured on or after May 26, 2020. Some vehicles produced prior to May 26, 2020 were contained at the plant and corrected prior to shipment.

Recall Schedule :

Description of Recall Schedule :	NR
Planned Dealer Notification Date :	NR - NR
Planned Owner Notification Date :	NR - NR

* NR - Not Reported