



Toyota Motor North America

Vehicle Safety & Compliance
Liaison Office
Mail Stop: W4-2D
6565 Headquarters Drive
Plano, TX 75024

July 12, 2019

Heidi King
Deputy Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Petition for Exemption from Notification and Remedy Requirements
Inconsequential Noncompliance with FMVSS 302 - Certain MY 2013-2019 Toyota Vehicles

Dear Heidi King:

Pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, on behalf of Toyota Motor Corporation ["TMC"], a Japanese corporation located at 1, Toyota-cho, Toyota-city, Aichi-ken, 471-8571, Japan and the Toyota manufacturing entities identified in the attached Noncompliance Information Report dated June 19, 2019 submitted in accordance with the requirements of 49 CFR Part 573 [collectively referred to as "Toyota"], I hereby submit three copies of the enclosed petition to the National Highway Traffic Safety Administration seeking an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that a noncompliance in certain MY 2013-2019 Toyota vehicles as identified in Toyota's Noncompliance Information Report is inconsequential as it relates to motor vehicle safety.

Please contact me should you have any questions about this petition.

Sincerely,

Cory Hoffman
General Manager
Toyota Motor North America, Inc.

Cc: Jeffrey Giuseppe, Otto Matheke
Enclosures

Petition for Inconsequential Noncompliance
Attachment 1 (Noncompliance Information Report)
Attachment 2 (Test Data)
Attachment 3 (Test Data)

**Petition for Exemption from Notification and Remedy Requirements
Pursuant to 49 CFR Part 556**

**Inconsequential Noncompliance with FMVSS No. 302
In Certain 2013-2019 Model Year Toyota Vehicles**

Executive Summary

Toyota submitted the attached Noncompliance Information Report concerning small carpet fasteners in certain Toyota vehicles that may not meet the burn rate requirement of FMVSS No. 302, Flammability of Interior Materials (see Attachment 1). 2,144,217 model year 2013-2019 Toyota RAV4 and 2014-2019 model year Toyota Highlander vehicles are potentially affected.

This noncompliance relates to certain hook and loop fasteners that attach the floor carpet to the underlying padding. The loop side of the fastener is made from material that may not comply with some portions of FMVSS No. 302. Paragraph S4.2 states that “Any portion of a single or composite material which is within 13 mm of the occupant compartment air space shall meet the requirements of S4.3.” Paragraph S4.3(a) requires that such material “shall not burn, nor transmit a flame front across its surface, at a rate of more than 102 mm per minute” when tested in accordance with S5. Because the fastener material is within 13 mm of the occupant compartment air space and “does not adhere to other material(s) at every point of contact,” each must meet the requirements of S4.3 when tested separately [S4.2.1]; when tested separately from the floor carpet, the loop side of the fastener does not meet the burn rate requirement. The remaining parts of the floor carpet assembly which surround the loop side of the fastener, including the floor carpet, underling padding, and hook side of the fastener, all meet the FMVSS No. 302 requirements. Improvements have been implemented as of March 28, 2019 to assure new vehicles sold by Toyota meet all FMVSS No. 302 requirements.

Based on the analysis of the nature and extent of the noncompliance and the investigation results described below, Toyota has determined that the burn rate of the loop fastener by itself is insignificant, because it is attached to the floor carpet and layered between materials that comply with FMVSS 302. When tested as a composite with the floor carpet, it meets the required burn rate of FMVSS 302. In addition, the loop fastener material is a very small portion of the overall mass of the soft material portions comprising the carpet assembly (i.e., 0.037% or less), and is significantly less in relation to the entire vehicle interior surface area that could potentially be exposed to flame.

In similar situations, NHTSA has granted inconsequentiality petitions in the past.

In this document, Toyota provides its data, views, and arguments in support of this petition. For the reasons set forth below, Toyota believes this noncompliance is inconsequential as it relates to motor vehicle safety.

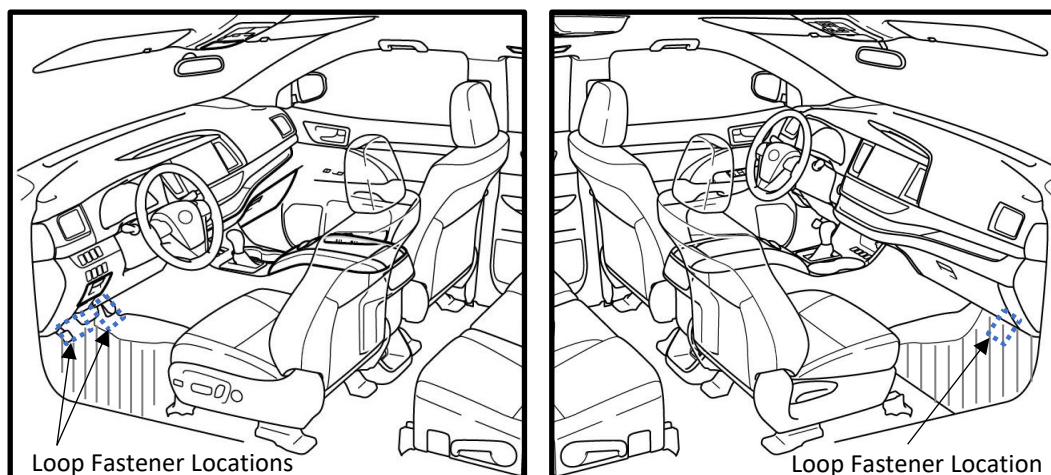
Summary of the Noncompliance

The carpets in the subject vehicles are attached to the underlying padding using hook and loop fasteners. As noted in the attached Noncompliance Information Report, Toyota's first notice of a possible noncompliance of the loop fastener material was from the carpet supplier. The supplier was performing flammability testing on the material in preparation for consideration of using it for another program. In this testing, the test results indicated that the burn rate did not meet the FMVSS standard. In addition, Toyota conducted internal tests of the loop fastener material; when tested separately from the carpet, some of the samples were nonflammable and some complied with the FMVSS 302 burn rate. However, four of the samples had noncompliant burn rates with a maximum of 133mm/min, exceeding the FMVSS No. 302, Paragraph S4.3(a) requirement. See Attachment 2 - Toyota FMVSS 302 Testing of Loop Fastener Material. As a result, the affected vehicles may not conform to FMVSS No. 302, Paragraph S4.3(a).

Carpet Assembly Construction

The carpet in the subject vehicles is molded to fit the vehicle body. Small (50x20mm) nylon hook and loop fasteners are used in the front footwell areas to attach the carpet to the underlying padding. See Figures 1 and 2. The Highlander models have two fasteners located in the driver's side footwell area behind the brake and accelerator pedals and one located in the passenger footwell area under the glove box area. See Figure 1. The RAV4 models are similar in construction and have three fasteners on the driver side footwell area. See Figure 2. The fasteners are completely covered by the carpet and layered between the carpet and underlying padding. The loop side of each fastener is attached to the back side of the carpet using a 10mm adhesive strip in the center and two staples near the ends. The hook side of the fastener is attached to the underlying padding. The loop side of the fastener is the only material that does not comply with FMVSS 302 requirements. See Figure 3.

**Fig. 1: General Locations of the Loop Fasteners in Highlander Vehicles
(2 Loop Fasteners on Driver Side and 1 on the Passenger Side)**



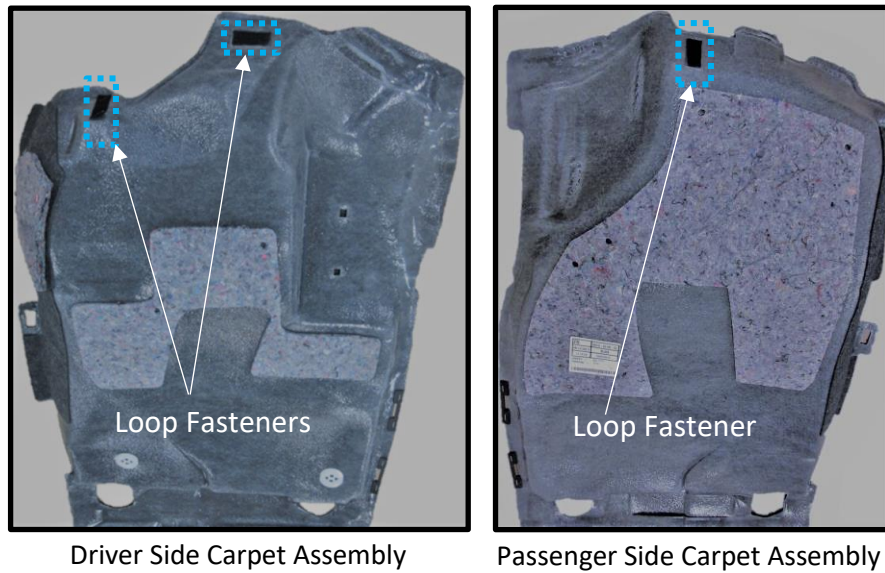


Fig. 2: General Locations of the Loop Fasteners in RAV4 Vehicles
(3 Loop Fasteners on the Driver Side)

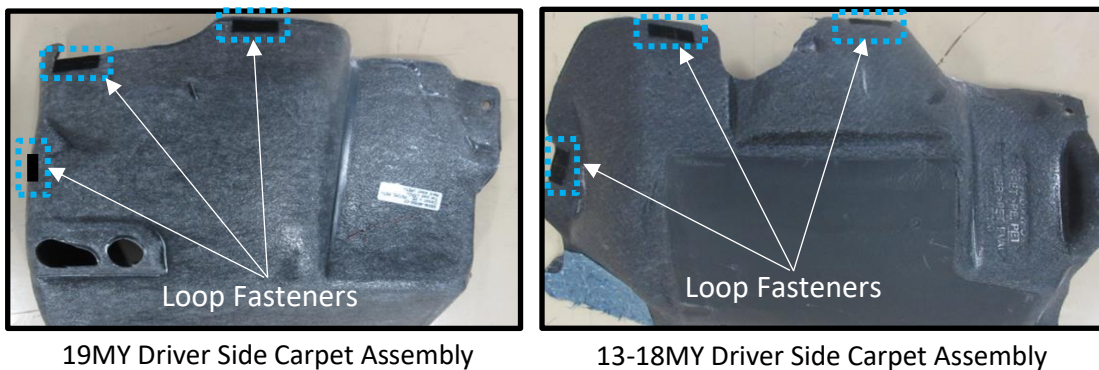
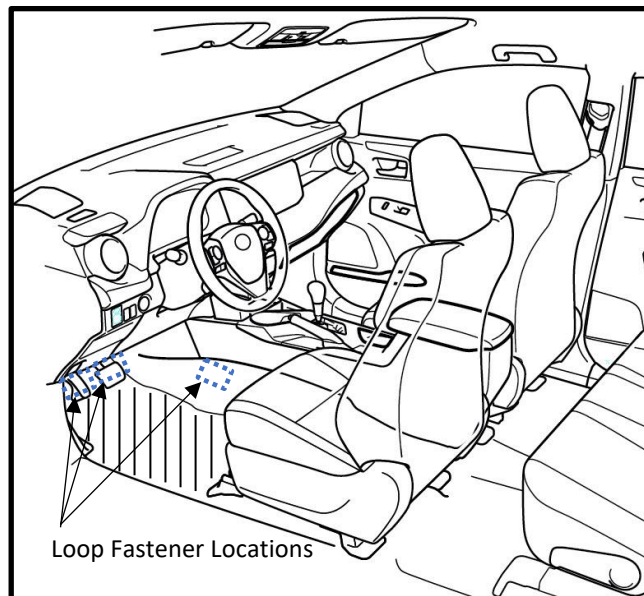
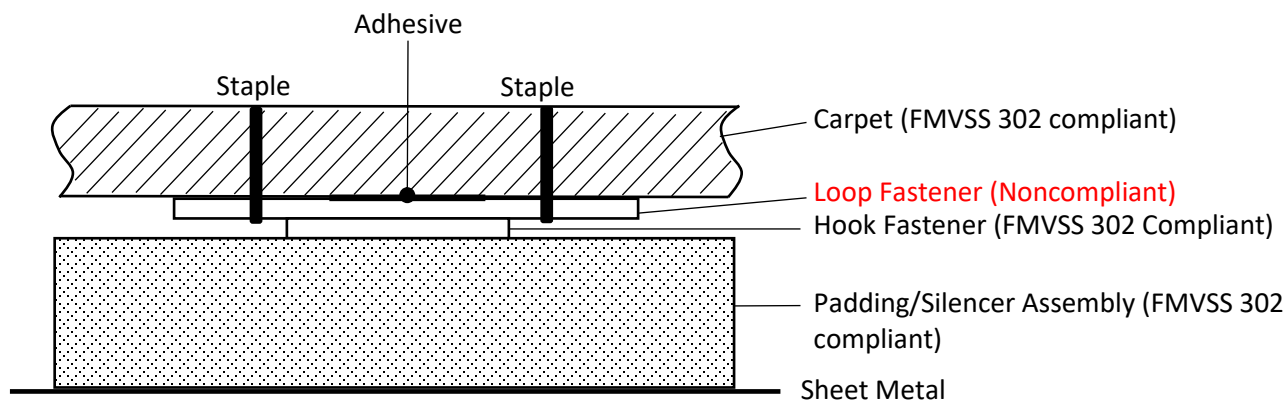


Fig. 3: Section Cut through Hook and Loop Fastener



Technical Root Cause of the Noncompliance

During pre-production evaluations of the new model Highlander (2020MY) the supplier found that the loop fasteners might not meet the burn rate requirement of FMVSS No. 302. These same fasteners are used on the subject vehicles; they are attached to the underside of the carpet near the front footwell area. Toyota conducted testing of the loop side of the fastener, in accordance with FMVSS 302; when tested separately from the carpet, the burn rate of the loop side of the fastener was 133mm/min (worst of ten tests). See Attachment 2. The loop fastener material did not have flame retardant coating, and therefore the burn rate requirement specified on the drawing was not met.

The Noncompliance is Inconsequential as it relates to Motor Vehicle Safety

Toyota believes that the noncompliance is inconsequential to motor vehicle safety for the following reasons:

- I. The loop fastener material complies with FMVSS No. 302 when tested as a “composite” as installed to the FMVSS 302 compliant carpet assembly.
- II. The purpose of FMVSS No. 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.”¹ The noncomplying loop fastener material would normally not be exposed to open flame or an ignition source (like matches or cigarettes) in its installed application, because it is installed beneath and completely covered by the carpet material which complies with FMVSS No. 302.

¹ S2. of FMVSS No 302; Flammability of Interior Materials

- III. The loop fastener material is a very small portion of the overall mass of the soft material portions comprising the carpet assembly (i.e., 0.037% or less), and is significantly less in relation to the entire vehicle interior surface area that could potentially be exposed to flame. Therefore, it would have an insignificant adverse effect on the interior material burn rate and the potential for occupant injury due to interior fire.
- IV. Toyota is not aware of any data suggesting that fires have occurred in the field in connection with the installation of the noncomplying loop fastener material.
- V. In similar situations, NHTSA has granted petitions for inconsequential noncompliance relating to the subject requirement of FMVSS No. 302.

Information concerning each of these reasons is discussed further below.

I. When Tested as a “composite”, FMVSS No. 302 Criteria Are Met

Toyota conducted FMVSS 302 burn testing of the loop fastener when assembled to the carpet as a “composite.” Toyota chose configurations to evaluate that were the most conservative in determining the material burn rate performance.

Toyota conducted burn rate testing using composite samples that were cut from mass production parts. Although the loop fasteners are not installed directly at the edge of the carpet, in order to test at the worst-case position for burn rate, Toyota tested with the fasteners aligned at the edge of the carpet. The burn rates for each sample is shown in Attachment 3 - Toyota Carpet and Loop Fastener Composite Burn Rate Test Results.

As evidenced by the attached test data, the loop material complies with FMVSS 302 when tested as a “composite” as installed in the vehicle.

II. The loop fastener is not exposed directly to the occupant compartment air space

As noted previously, the purpose of FMVSS No. 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 noncomplying loop fastener material would normally not be exposed to open flame or an ignition source (like matches or cigarettes) in its installed application, because it is installed beneath and completely covered by the carpet material which complies with FMVSS 302.

The loop fastener is layered between other FMVSS 302 compliant materials. The fastener is attached to the underside of the carpet for the purpose of attaching it to the underlying padding. No portion of the loop fastener material is visible or directly exposed to the occupant compartment as installed in the vehicle. As constructed, it would be highly unlikely that the loop fastener material would ever be exposed to ignition sources such as matches or cigarettes, identified in S2. of FMVSS No. 302 as a stated purpose of the standard. Because the loop fastener material is covered and layered between FMVSS 302-compliant materials, it would be

extremely unlikely that a vehicle occupant would ever be exposed to a risk of injury as a result of the noncompliance. See Figure 3, above.

Given the stated purpose of FMVSS 302, Toyota believes that the noncompliant loop fastener material as installed in the vehicle does not present a safety risk, and the chance of fire or flame propagation is essentially zero.

III. The loop fastener is a very small portion of the carpet assembly

The loop fastener material is only a very small part of the overall mass of the soft material comprising the carpet assembly (i.e., up to a maximum of 0.037% depending on the vehicle model), and is significantly less in relation to the entire vehicle interior surface area that could potentially be exposed to flame. Therefore, it would have an insignificant adverse effect on interior material burn rate and the potential for occupant injury due to interior fire.

IV. There are no relevant field incidents

Toyota conducted a search of consumer complaints, field reports, dealer reports, Vehicle Owner Questionnaires (VOQs), and legal claims for the subject vehicles and found no reports relating to ignition of the loop fastener. As of July 10, 2019, Toyota is not aware of any fires, crashes, or injuries in connection with this component in the subject vehicles.

V. In similar situations, NHTSA has granted petitions for inconsequential noncompliance relating to the subject requirement of FMVSS No. 302

NHTSA has previously granted at least ten FMVSS 302 petitions for inconsequential noncompliance – one of which was for a vehicle's seat heater assemblies, one of which was for a vehicle's console armrest, one of which was for large truck sleeper bedding, one of which was for seating material, and six of which were for issues related to child restraints.² A brief summary of each issue is provided below:

- Paccar (57 Fed. Reg. 45868, October 5, 1992) – Noncompliant tape edging surrounding otherwise compliant bedding materials in a large truck sleeper bed was deemed by the agency to be inconsequential given its low relative volume to the otherwise complying surrounding material, as well as the fact the tape edging passed bedding industry fire standards. Unlike the Toyota loop fastener material in the subject vehicles, which is not exposed directly to the occupant compartment air space, the tape edging of the sleeper bed was exposed. Nonetheless, the agency granted the petition on the basis that, as with the loop material in the subject vehicles, the noncompliant material was surrounded by

² FMVSS 302 does not in itself apply to child restraint systems, but paragraph S4 of FMVSS 302 is invoked by reference in FMVSS 213; therefore, the child restraint petitions are relevant precedents.

compliant material and was of a low relative volume compared to the compliant material.

- Fischer Price (60 Fed. Reg. 41152, August 11, 1995) – Noncompliant fabric used in CRS shoulder straps was deemed to be inconsequential by the agency, due to factors which included that the margin of noncompliance was small; the shoulder straps that do not comply are a small part of the CRS itself and a minimal part of the fabric present in a vehicle’s interior; the absence of reports in which the noncompliance exists supported the agency’s decision that the noncompliance is inconsequential. The subject Toyota loop fastener material is also a small part of the vehicle carpet and a minimal part of the materials in the interior of the subject vehicles. In addition, there are no known field events in connection with the loop material.
- Century (60 Fed. Reg. 41148, August 11, 1995) – Noncompliant seat covers were determined unlikely to pose a flammability risk when securely sewn to the seat (i.e., the “normal condition”), based on some additional flammability testing conducted by Century as a composite, and on previous petitions granted by the agency, including Paccar. Unlike the Toyota loop fastener material in the subject vehicles, which is not exposed directly to the occupant compartment air space in the “normal condition,” the CRS covers were exposed. Similarly, the Toyota subject loop material also passes the FMVSS 302 requirements when tested as a “composite.” The agency also noted that (as is the case with the subject Toyota loop material) “the absence of fires originating in these child restraints supported the agency’s decision that the noncompliance does not have a consequential effect on safety.”
- Cosco - (60 Fed. Reg. 41150, August 11, 1995) - Noncompliant fabric used in CRS shoulder straps was deemed to be inconsequential by the agency due the similarity to the Fisher Price request for inconsequentiality and the reasons set out in the notice granting Fisher Price’s appeal (see above). FMVSS 302 does not in itself apply to child restraint systems, but paragraph S4 of FMVSS 302 is invoked by reference in FMVSS 213; therefore, the child restraint petitions are relevant precedents.
- Kolcraft (63 Fed. Reg. 24585, May 4, 1998) – One or more of the fitting, face, or backing materials of CRS seat covers were noncompliant. NHTSA determined the noncompliance to be inconsequential when testing showed that, when tested as a composite (i.e., in the “normal condition”), the covers met FMVSS 302. Similarly, the Toyota subject loop fastener material passes the FMVSS 302 requirements when tested as a “composite.” NHTSA noted it granted the Century petition for “identical” circumstances (see above).
- Cosco (63 Fed. Reg. 30809, June 5, 1998) - NHTSA found that the noncomplying fiberfill incorporated into a pillow located in a child restraint was inconsequential to safety due to the unlikelihood of exposure to an ignition source for various reasons: that the noncompliant material was encased in materials which complied with FMVSS 302, and that the fiberfill was only a limited quantity of noncompliant material used in the CRS. Similarly, the subject Toyota loop fastener material also passes the 302 requirements when tested as a composite, is unlikely to be exposed to a direct ignition

source, is surrounded by materials which comply with FMVSS 302, and is only a limited quantity of noncompliant material in the carpet assembly. The agency also noted that (as is the case with the subject Toyota loop material) “the absence of fires originating in these child restraints supported the agency’s decision that the noncompliance does not have a consequential effect on safety.”

- Ford (63 Fed. Reg. 40780, July 30, 1998) – A noncompliant center console armrest “plus pad” was determined by the agency to be inconsequential to safety in that, because of its location under an exterior cover, it was unlikely to pose a flammability risk due to the unlikelihood of its exposure to an ignition source. The agency was unaware of any occupant injuries in vehicle post-crash fires that were caused by burning of the console armrests in those vehicles. Similarly, the subject Toyota loop fastener material is unlikely to be exposed to an ignition source, and there are no known field ignition events in connection with this material. Ford undertook “composite” testing similar to Toyota’s described above to support its petition.
- Graco (77 Fed. Reg. 14055, March 8, 2012) – Certain noncompliant warning labels attached to the outside of detachable accessory pillows were deemed inconsequential by the agency due to the relatively small size of the label, together with its proximity to other materials on the CRS that were treated with flame retardant materials, rendering the likelihood of ignition of the label extremely low. The subject Toyota loop fastener material is surrounded by compliant materials, is not exposed to the occupant compartment air space, and is a small part of the vehicle carpet assembly and a minimal part of the otherwise compliant materials in the interior of the subject vehicles.
- Toyota (80 Fed. Reg. 4035, January 26, 2015) – Certain noncompliant front and rear seat back and seat cushion seat heaters were determined by the agency to be inconsequential to safety in that the seat heaters were unlikely to pose a flammability risk. The agency was unaware of any occupant injuries regarding these seat heaters in the subject vehicles. The seat heaters would not accommodate a flame rate beyond what is permitted by FMVSS No. 302 when exposed directly to an open flame in the installed condition (as a composite). It was also demonstrated that the seat heater was a very small portion of the overall mass of the seat assembly. Similarly, the subject loop fastener material is unlikely to be exposed to an ignition source in the installed condition, it does not accommodate a flame beyond what is permitted by FMVSS No. 302 when exposed directly to an open flame in the installed condition (as a composite), the loop material is only a very small portion of the overall mass of the carpet assembly, and there are no known field ignition events in connection with this material.
- Toyota (83 Fed. Reg. 16433, April 16, 2018) – Certain noncompliant needle punch felt material used in the front and rear seat covers and rear center armrest assemblies was determined by the agency to be inconsequential to safety. The agency stated that: 1) the needle punch felt material is covered by other materials that do comply with FMVSS No. 302, thus, the needle punch felt material is protected from the occupant compartment where it could directly come into contact with an ignition source such as a

match or cigarette; 2) when the needle punch felt material is tested as a composite with the FMVSS No. 302 compliant materials (i.e., seat cover, cover pad, foam pad, seat heater, carpet, and storage bin) that cover the punch felt material, the requirements for burn rate are met accordingly; and 3) the noncompliant material is approximately 0.32 percent of the total mass of the soft material of the front seat assembly and between 0.48 percent and 0.55 percent (less than 1 percent) of the total mass of the soft material of the rear seat assembly. Therefore, the noncompliant material represents an insignificant quantity of material compared to the total quantity of interior vehicle material. The loop fasteners in the subject vehicles share these same characteristics.

Conclusion

For the reasons set forth above, Toyota believes this noncompliance is inconsequential as it relates to motor vehicle safety and seeks an exemption from the notice and remedy requirements of 49 U.S.C. Chapter 301 for the subject vehicles.

Attachment 1

TOYOTA

Toyota Motor North America, Inc.

Vehicle Safety & Compliance
Liaison Office
Mail Stop: W4-2D
6565 Headquarters Drive
Plano, TX 75024

June 19, 2019

NONCOMPLIANCE INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing Canada Inc. ["TMMC"]
1717 Dundas Street, Woodstock, Ontario, Canada N4S 0A4

Toyota Motor Manufacturing, Indiana, Inc. ["TMMI"]
4000 Tulip Tree Drive, Princeton, IN 47670-4000

Affiliated U.S. Sales Company

Toyota Motor North America, Inc. ["TMNA"]
6565 Headquarters Drive, Plano, TX 75024

Manufacturer of the floor carpet assembly

TOYOTA BOSHOKU INDIANA, LLC
Location: 1698 S. 100 W. Princeton, Indiana 47670
Country of Origin: U.S.A

TOYOTA BOSHOKU CANADA, INC.
Location: 230 Universal Rd., Woodstock, Ontario, N4S 7W3
Country of Origin: Canada

2. Identification of Involved Vehicles:

Based on production records, we have determined the involved vehicle population to be the vehicles listed in the table below.

Make/Car Line	Model Year	Manufacturer	Production Period
Toyota RAV4	2013 - 2019	TMMC	December 21, 2012 through March 28, 2019
Toyota Highlander / Highlander HV	2014 - 2019	TMMI	November 20, 2013 through March 28, 2019

Applicability	Part Number	Part Name	Component Description
Toyota RAV4	58510-0R040 58510-0R041 58510-0R090 58510-0R130 58510-0R150	Carpet Assy, Floor, Fr	Floor Carpet Assembly
Toyota Highlander / Highlander HV	58510-0E180 58510-0E190 58510-0E200 58510-0E210 58510-0E220		

Note: (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S.

(2) Only vehicles in the above production range which have loop fasteners that do not have a flame-retardant coating could be affected.

3. Total Number of Vehicles Involved:

Toyota RAV4:	1,106,094
Toyota Highlander / Highlander HV:	1,038,123
Total:	2,144,217

4. Percentage of Vehicles Estimated to Actually Contain the Noncompliance:

100%

5. Description of Noncompliance:

The carpets in the subject vehicles are attached to the underlying padding using hook and loop fasteners. The loop side of these fasteners that are attached to the carpet may not meet the burn rate requirements of FMVSS No. 302, paragraph S4.3(a) when tested separately from the floor carpet. As a result, the affected vehicles may not conform to FMVSS No. 302, paragraph S4.3(a).

6. Test Results and Other Information:

During pre-production evaluations of the new model Highlander (2020MY), the supplier found that certain loop fasteners, might not meet the burn rate requirement of FMVSS No. 302. These same fasteners are used on the subject vehicles which are attached to the underside of carpet near the front footwell area. It was thought that the carpet and the loop fastener could be tested together for FMVSS certification, because the fastener is attached to the carpet. When tested together the materials meet the burn rate requirement. However, it was later determined that, because the loop fastener is not adhered at every point of contact, but is attached to the carpet with a 10mm adhesive strip at the center and two staples, it should be tested separately from the carpet. To confirm the supplier's test results, Toyota procured the carpet and loop material and sent it to Japan for testing. On June 13, 2019, it was determined, based on testing of the loop material in accordance with FMVSS No. 302, that the subject vehicles may not fully conform to FMVSS No. 302, paragraph S4.3(a).

7. Description of Corrective Repair Action:

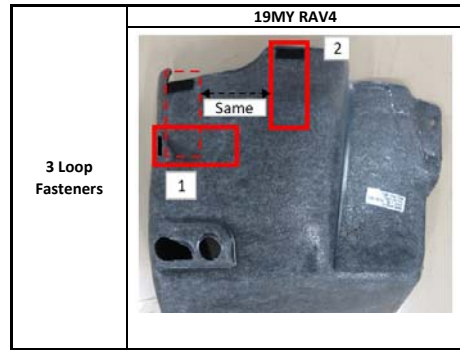
Pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, Toyota intends to petition NHTSA for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential to motor vehicle safety.

Attachment 2 - Toyota FMVSS 302 Testing of Loop Fastener Material

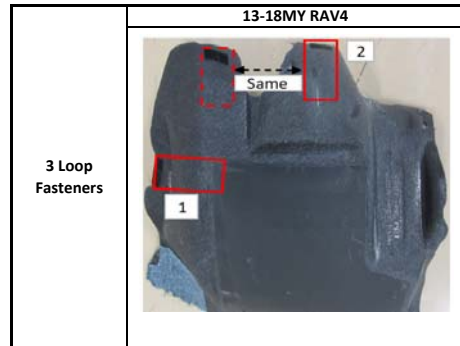
Direction	Sample No.	Burn Distance (mm)	Burn Times (sec)	Burn Rate (mm/min)
Warp	1	0	0	Non-Flammable
	2	254	134	114
	3	254	133	115
	4	254	115	133
	5	0	0	Non-Flammable
Weft	1	0	0	Non-Flammable
	2	254	137	112
	3	0	0	Non-Flammable
	4	254	259	59
	5	254	323	48

Attachment 3 - Toyota Carpet and Loop Fastener Composite Burn Rate Test Results

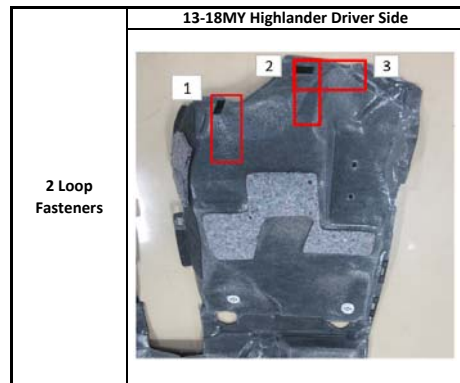
19MY RAV4				
Location	Sample No.	Distance (mm)	Time (sec)	Burn Rate (mm/min)
1	1	0	0	Non-Flammable
	2	0	0	Non-Flammable
	3	0	0	Non-Flammable
	4	0	0	Non-Flammable
	5	0	0	Non-Flammable
2	1	0	0	Non-Flammable
	2	0	0	Non-Flammable
	3	0	0	Non-Flammable
	4	0	0	Non-Flammable
	5	0	0	Non-Flammable



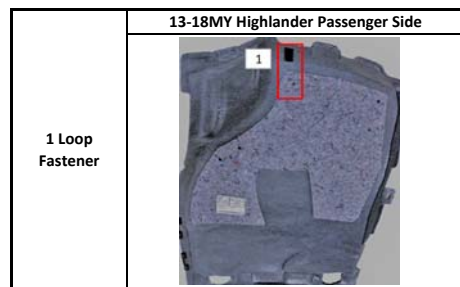
13-18MY RAV4				
Location	Sample No.	Distance (mm)	Time (sec)	Burn Rate (mm/min)
1	1	0	0	Non-Flammable
	2	0	0	Non-Flammable
	3	0	0	Non-Flammable
	4	0	0	Non-Flammable
	5	0	0	Non-Flammable
2	1	0	0	Non-Flammable
	2	30	92	20
	3	0	0	Non-Flammable
	4	0	0	Non-Flammable
	5	15	17	Self-Extinguished



13-18MY Highlander Driver side				
Location	Sample No.	Distance (mm)	Time (sec)	Burn Rate (mm/min)
1	1	254	468	33
	2	254	302	51
	3	254	347	44
	4	254	257	60
	5	105	185	34
2	1	36	103	21
	2	254	544	28
	3	254	572	27
	4	0	0	Non-Flammable
	5	154	349	27
3	1	0	0	Non-Flammable
	2	0	0	Non-Flammable
	3	0	0	Non-Flammable
	4	254	319	48
	5	0	0	Non-Flammable



13-18MY Highlander Passenger side				
Location	Sample No.	Distance (mm)	Time (sec)	Burn Rate (mm/min)
1	1	14	57	Self-Extinguish
	2	254	494	31
	3	254	414	37
	4	254	563	27
	5	254	534	29





Toyota Motor North America, Inc.

Vehicle Safety & Compliance

Liaison Office

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6565 Headquarters Drive

Plano, TX 75024

August 13, 2019

Heidi King
Deputy Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Supplement to Petition for Exemption from Notification and Remedy Requirements
Inconsequential Noncompliance with FMVSS 302 - Certain MY 2013-2019 Toyota Vehicles

Dear Deputy Administrator King:

On July 12, 2019, pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, Toyota submitted a petition to the National Highway Traffic Safety Administration seeking an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that a noncompliance in certain MY 2013-2019 Toyota vehicles is inconsequential as it relates to motor vehicle safety. This letter supplements that petition and provides additional information in its support.

The noncompliance relates to carpets in the subject vehicles that are attached to the underlying padding using hook and loop fasteners. The loop side of these fasteners that are attached to the carpet may not meet the burn rate requirements of FMVSS No. 302, paragraph S4.3(a) when tested separately from the floor carpet. As a result, the affected vehicles may not conform to FMVSS No. 302, paragraph S4.3(a).

Toyota's petition asserted that the noncompliance is inconsequential to motor vehicle safety for the following reasons:

- The loop fastener material complies with FMVSS No. 302 when tested as a "composite" as installed to the FMVSS 302 compliant carpet assembly.
- The purpose of FMVSS No. 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."¹ The noncomplying loop fastener material would normally not be exposed to open flame

¹ S2. of FMVSS No 302; Flammability of Interior Materials

or an ignition source (like matches or cigarettes) in its installed application, because it is installed beneath and completely covered by the carpet material which complies with FMVSS No. 302.

- The loop fastener material is a very small portion of the overall mass of the soft material portions comprising the carpet assembly (i.e., 0.037% or less), and is significantly less in relation to the entire vehicle interior surface area that could potentially be exposed to flame. Therefore, it would have an insignificant adverse effect on the interior material burn rate and the potential for occupant injury due to interior fire.
- Toyota is not aware of any data suggesting that fires have occurred in the field in connection with the installation of the noncomplying loop fastener material.
- In similar situations, NHTSA has granted petitions for inconsequential noncompliance relating to the subject requirement of FMVSS No. 302.

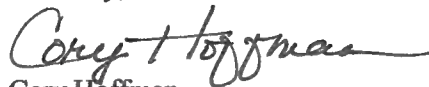
On July 31, 2019 Transport Canada ("TC") notified Toyota Canada, Inc. (TCI") that it had evaluated information supplied by TCI in connection with a Notice of Noncompliance submitted to TC involving the same facts that gave rise to the Part 573 Report that is subject of this Inconsequentiality Petition. A copy of the letter received from TC is attached. TC had been provided with Toyota's July 12, 2019 Inconsequentiality Petition to NHTSA.

Transport Canada concluded that "there is no real or implied degradation to motor vehicle safety" presented by the noncompliance with CMVSS 302, and indicated that no further notification or remedy action is required.

For the reasons stated above and for those outlined in the July 12, 2019 petition, we continue to believe that this petition should be granted.

Please contact me should you have any questions.

Sincerely,



Cory Hoffman
General Manager
Toyota Motor North America, Inc.

Attachment:
Transport Canada Letter

cc: Jeffrey M. Giuseppe, Otto Matheke



Transport
Canada

Safety and Security

Motor Vehicle Safety
330 Sparks Street
Place de Ville, Tower C
Ottawa, ON K1A 0N5

Transports
Canada

Sécurité et sûreté

Sécurité des véhicules automobiles
330, rue Sparks
Place de Ville, Tour C
Ottawa, ON K1A 0N5

July 31, 2019

Mr. Roger Ebanks
Director, Product Quality and Customer Service
Toyota Canada Inc.
1 Toyota Place
Toronto, ON M1H 1H9

Subject: Notice of Noncompliance – 2013-19MY Toyota RAV4 and 2014-19MY Toyota Highlander & Highlander HV CMVSS No.302 Floor Carpet Assembly

Dear Mr. Ebanks,

Thank you for your letters of June 19, 2019 and July 12, 2019 in which you provided information regarding the 2013-19MY Toyota RAV4 and 2014-19MY Toyota Highlander & Highlander HV vehicles non-compliant to the requirement of CMVSS 302- Flammability.

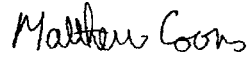
Specifically, Toyota Canada has determined that a total of 327,373 vehicles may not comply with some portions of CMVSS No. 302 when the loop side of the fastener that attach the floor carpet to the underlying padding is tested separately. Toyota Canada has demonstrated that the hook and loop fasteners meets the required burn rate of CMVSS 302 when tested as a composite with the floor carpet. Despite the fact that the loop fastener is not adhered at every point of contact, Toyota Canada has advised that the loop fastener is a very small portion of the overall mass of the soft material portions comprising the carpet assembly (i.e., 0.037% or less), and is significantly less in relation to the entire vehicle interior surface area that could potentially be exposed to flame. Toyota has indicated that the noncompliant loop fastener material as installed in the vehicle does not present a safety risk, and the chance of fire or flame propagation is essentially zero. Toyota has also provided additional rationale why this condition is inconsequential to motor vehicle safety and has indicated that a production change has been implemented to ensure vehicles in production conform to CMVSS 302.

Canada

www.tc.gc.ca

The Compliance Engineering, Vehicle and Equipment Testing Division has reviewed your submission and concurs that in this particular and limited situation, there is no real or implied degradation to motor vehicle safety. We therefore accept your above referenced letter and Notice of Non-Compliance sent to Transport Canada as meeting your obligation for notification under the Canada Motor Vehicle Safety Act. No further action is required on the part of Toyota Canada Inc.

Sincerely,

A handwritten signature in black ink that reads "Matt Coons". The signature is written in a cursive, slightly slanted style.

Matt Coons, P. Eng
Chief, Compliance Engineering,
Vehicle and Equipment Testing

Part 573 Safety Recall Report

19V-468

Manufacturer Name : Toyota Motor Engineering & Manufacturing

Submission Date : JUN 19, 2019

NHTSA Recall No. : 19V-468

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Toyota Motor Engineering & Manufacturing

Address : 6565 Headquarters Drive

Plano TX 75024

Company phone : 1-800-331-4331

Population :

Number of potentially involved : 2,144,217

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2013-2019 Toyota RAV4

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S. (2) Only vehicles in the above production range which have loop fasteners that do not have a flame-retardant coating could be affected.

Production Dates : DEC 21, 2012 - MAR 28, 2019

VIN Range 1 : Begin :

NR

End : NR

☐ Not sequential

Vehicle 2 : 2014-2019 Toyota Highlander / Highlander HV

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S. (2) Only vehicles in the above production range which have loop fasteners that do not have a flame-retardant coating could be affected.

Production Dates : NOV 20, 2013 - MAR 28, 2019

VIN Range 1 : Begin :

NR

End : NR

☐ Not sequential

Description of Noncompliance :

Description of the Noncompliance : The carpets in the subject vehicles are attached to the underlying padding using hook and loop fasteners. The loop side of these fasteners that are attached to the carpet may not meet the burn rate requirements of FMVSS No. 302, paragraph S4.3(a) when tested separately from the floor carpet. As a result, the affected vehicles may not conform to FMVSS No. 302, paragraph S4.3 (a).

FMVSS 1 : 302 - Flammability of interior materials

FMVSS 2 : NR

Description of the Safety Risk : Pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, Toyota intends to petition NHTSA for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential to motor vehicle safety.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Supplier Identification :**Component Manufacturer**

Name : Toyota Boshoku

Address : 1698 S. 100 W.
Princeton INDIANA 47670

Country : United States

Chronology :

During pre-production evaluations of the new model Highlander (2020MY), the supplier found that certain loop fasteners, might not meet the burn rate requirement of FMVSS No. 302. These same fasteners are used on the subject vehicles which are attached to the underside of carpet near the front footwell area. It was thought that the carpet and the loop fastener could be tested together for FMVSS certification, because the fastener is attached to the carpet. When tested together the materials meet the burn rate requirement. However, it was later determined that, because the loop fastener is not adhered at every point of contact, but is attached to the carpet with a 10mm adhesive strip at the center and two staples, it should be tested separately from the carpet. To confirm the supplier's test results, Toyota procured the carpet and loop material and sent it to Japan for testing. On June 13, 2019, it was determined, based on testing of the loop material in accordance with FMVSS No. 302, that the subject vehicles may not fully conform to FMVSS No. 302, paragraph S4.3(a).

Description of Remedy :

Description of Remedy Program : Pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, Toyota intends to petition NHTSA for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential to motor vehicle safety.

How Remedy Component Differs from Recalled Component : Not Applicable.

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : Pursuant to 49 U.S.C. 30118(d) and 30120(h), and the provisions of 49 CFR Part 556, Toyota intends to petition NHTSA for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential to motor vehicle safety.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

* NR - Not Reported