# **VOLKSWAGEN**

GROUP OF THE COUNSEL RECEIVED

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Paul Hemmersbaugh, Acting Chief Counsel Office of Chief Counsel National Highway Traffic Safety Administration West Building, W41-326 1200 New Jersey Aveneue S.E. Washington D.C. 20590 Christopher T. Sandvig NAME
General Manager Title
Group Customer Protection Department
248-754-5000 Phone
248-754-5093 Fax
October 30, 2015 Date

Re:

EA15-001 Air Bag Inflator Rupture

Special Order Directed To Volkswagen Group of America, Inc.

VOLKSWAGEN GROUP OF AMERICA, INC 3800 HAMLIN ROAD AUBURN HILLS, MI 48326 PHONE +1 248 754 5000

Dear Mr. Hemmersbaugh:

Please find attached Volkswagen's November 01, 2015 supplemental response to the <u>Special Order Directed To Volkswagen Group of America, Inc.</u>, in reference to EA15-001, Air Bag Inflator Rupture, dated October 01, 2015, requesting information concerning a SSI-20 air bag inflator rupture in a 2015 MY Volkswagen Tiguan, on June 7, 2015, as reported to the agency on July 15, 2015.

Volkswagen will continue to meet the requirement for 30 day supplemental submissions as outlined in the Special Order.

Per the Special Order direction, each request is restated verbatim and followed by our response.

Please contact me if you have any questions regarding this response.

Sincerely,

Christopher T. Sandvig

General Manager, Group Customer Protection

Volkswagen Group of America, Inc.

**Enclosures** 

The following constitutes supplemental Volkswagen Group responses to the Department of Transportation, National Highway Traffic Safety Administration.

# SPECIAL ORDER DIRECTED TO VOLKSWAGEN GROUP OF AMERICA, INC.

In re: EA 15-001 (Formerly PE14-01(6) Air Bag Inflator Rupture, Dated August 13, 2015 and Received by Volkswagen AG on Monday, August 17, 2015.

Most of the information required to respond to this special order is in the possession of or can only be secured with the technical and logistical assistance of Volkswagen AG in Wolfsburg, Germany.

Volkswagen will continue to meet the requirement for 30 day supplemental submissions as outlined in the Special Order.

Volkswagen restates the request and follows with its response.

1. Provide a detailed, narrative explanation, including a timeline of events and knowledge, and supporting documentation (including police reports), of your understanding of the SSI-20 air bag inflator rupture in the Volkswagen Tiguan on or about June 7, 2015.

#### Response 1

No additional information available in response to Request 1.

2. Provide a detailed, narrative explanation, including a timeline of events and knowledge, and supporting documentation (including police reports), of your understanding of any confirmed or alleged SSI-20 air bag inflator rupture in any Volkswagen vehicle (other than the incident identified in Request No. 1), or during any Volkswagen testing, including testing conducted by any third party on behalf of, or at the direction of, Volkswagen.

### Response 2

Volkswagen has not identified nor has been informed of any alleged or confirmed SSI-20 air bag inflator rupture events beyond those previously reported. The following chronology relates to the ongoing analysis of SSI-20 inflators, including the 2010 LAT test incident that Takata notified Volkswagen about on August 25, 2015.

#### Tuesday, September 22, 2015

Definition of increased sampling program. [refer to document: 20150922\_150922 WE Prüfanweisung Freiberg (2)]

#### Wednesday, September 23, 2015

Volkswagen received first written notice of the additional 2010 failed LAT incident. [refer to document: 20150923 doc05987320150923123427]

#### Friday, September 25, 2015

Takata stated significant influence of crush strength to inflator performance. [refer to document: 20150925\_SSI-20\_Analysis\_crush\_strength\_21092015]

#### Monday, September 28, 2015

Takata reported testing with manipulated ceramic cushions to replicate the failure from the reported failed LAT test. [refer to document: 20150928 SSI-20 Fishbone testing summary 2015-9-25A]

### Wednesday, September 30, 2015

Takata reported an inflator test with 4 tablets of little crush strength inserted into one inflator. During the test, no rupture occurred.

#### Friday, October 2, 2015

The additional Takata LAT failure from 2010 was reported to Volkswagen's product safety committee. Takata reported that 2 ceramic cushions may have been assembled into the inflator as sister parts were detected with 2 cushions assembled. Company records have been searched to find side airbags deployments from this lot, searching specifically for additional reports of a ruptured inflator. No indication for an additional incident/rupture was found. [refer to documents: 20151002\_Info an APS zu Fall in 2010; 20151002\_Info an APS zu Fall in 2010\_KGQP; 20151002\_Info\_an\_APS\_GG\_SAB\_Takata\_02102015; 20151002\_Risikobetrachtung\_GQX-G]

#### Tuesday, October 13, 2015

Meeting between Takata and Volkswagen to discuss new findings. Average crush strength detected to have influence on inflator performance. Takata acknowledges correlation between humidity measures and LAT failures, yet root cause remains unknown.

[refer to document: 20151013\_VW20151007\_r12]

### Wednesday, October 14, 2015

Takata reported new information about density measurements. When disassembling sister parts from one LAT failure, no change in density could be observed. Both measurements were conducted in Moses Lake. When comparing Freiberg measurements to Moses Lake, Takata concludes that there must be a difference in measurement method, so that results cannot be compared. Takata is re-evaluating the measurement methodology to ensure accuracy between locations. [refer to document: 20151014\_2015\_10\_13\_SSI-20\_2004\_Propellant\_Tablet\_Analysis\_Mod\_04 (3) (2)]

Continuous reporting to Volkswagen's product safety committee evaluates findings on high level regarding potential fault paths, timeline and options. LAT incidents occur with implementation of measures against humidity. It was reported that a high number of inflators from a failed LAT test were available from Shanghai. These parts shall be tested and evaluated as they were part of a lot with a failed test. [refer to document: 20151014\_Info\_an\_APS\_GG\_SAB\_Takata\_13102015]

Information has been acquired and reviewed through Friday, October 16, 2015, in preparation of Volkswagen's November 01, 2015 supplemental response.

3. Other than as previously disclosed in response to Requests No. 1 and 2 above, provide a detailed, narrative explanation, including a timeline of events and knowledge, and supporting documentation (including police reports), regarding any confirmed or alleged rupture of any air bag inflator in any Volkswagen vehicle.

### Response 3

Volkswagen reconfirms it has not received any additional reports of an alleged or confirmed rupture of any air bag inflator in any Volkswagen vehicle since the October 01, 2015 supplemental response.

4. For each incident identified in your responses to Request Nos. 1 - 3, provide a copy of all documents that refer to, relate to, discuss, or concern Takata's assessment of the incident, and all documents that Volkswagen gathered as part of its investigation (including any police accident reports).

# Response 4

All Takata related documents, identified to date, in response to Requests 1 and 2 are being provided in a folder entitled, "REQUEST NUMBER FOUR" on the enclosed disc.

# Exhibit to Request 4

Data is provided in the specified file format in the REQUEST NUMBER FOUR folder on the Special Order Re: EA15-001 – Air Bag Inflator Rupture November 01, 2015

Volkswagen Group of America, Inc. Response Material

5. For each incident identified in your responses to Request Nos. 1 - 3, provide a copy of all documents that refer to, relate to, discuss, or concern Volkswagen's assessment of the incident, and all documents that Volkswagen gathered as part of its investigation (including any police accident reports), other than those already identified or provided in your response to Request No. 4.

### Response 5

All Volkswagen related documents, identified to date, in response to Requests 1-3 are being provided in a folder entitled, "REQUEST NUMBER FIVE" on the enclosed disc.

# Exhibit to Request 5

Data is provided in the specified file format in the REQUEST NUMBER FIVE folder on the Special Order Re: EA15-001 – Air Bag Inflator Rupture November 01, 2015

Volkswagen Group of America, Inc. Response Material

6. For all side air bag inflators installed in any vehicle produced by Volkswagen, provide the Lot Acceptance Testing (LAT) failure rates, number of inflators that failed, and total number of inflators tested, for each inflator type broken down by LAT group. For any other type of testing conducted by Volkswagen, or by a third party on your behalf or at your direction, on side air bag inflators state what type of testing was conducted (including how a group or test category is defined) and the failure rates, number of inflators that failed, and total number of inflators tested.

#### Response 6

Volkswagen has assembled internal Conformity of Production (CoP) testing regarding the SSI-20 side airbag inflator. Numerous tests have been performed in various models without any inflator rupture. A complete overview is provided as Attachment to Response 6 and will be updated through future submissions.

7. Provide a list of all vehicles ever produced by Volkswagen that contained an air bag inflator that in any way utilized phase stabilized ammonium nitrate as a propellant. Include the vehicle model (M), vehicle model year (MY), total number of vehicles produced for each MMY identified in response to this Request, inflator supplier, and inflator type. Organize the information chronologically based on inflator supplier and type.

### Response 7

Volkswagen is providing a table with current production volumes through October 28, 2015, related to air bag inflators which utilize phase stabilized ammonium nitrate. A complete overview is provided as Attachment to Response 7.

As 2016 Model Year US production information is updated by Volkswagen, it will be included in subsequent updates to the Special Order.