

**United States Department of Transportation
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

In re:)
)
PE14-016)
Air Bag Inflator Rupture)
)

**BMW of North America's First Supplemental Response to General Order
Directed to Manufacturers**

BMW of North America hereby submits its first supplemental response to NHTSA's General Order directed to manufacturers. BMW of North America is continuing to investigate these matters and expects to supplement further the responses provided herein as new information responsive to this request becomes available. BMW of North America's basis for responding to several of the questions below is based on, and thus limited to, such information as provided to it by Takata and by BMW AG.

Specifically, this first supplemental response provides additional information regarding BMW's response to Question 1.d., which is repeated here:

1.d. If testing of inflators has been completed, describe in detail the result of the testing and the conclusions you have reached based upon the test results. If your conclusion is that a safety defect does not exist in inflators outside of the HAH Regions, describe in detail the basis for that conclusion and when the decision was made and by whom. Provide a copy of all documents to or from any persons related to the conclusion that no safety defect exists in inflators outside of the HAH Region.

Passenger Airbag Inflator

As described in BMW of North America's initial response, one rupture occurred during Takata's testing of passenger airbags taken from BMW vehicles. Takata reviewed that rupture on December 9th, 2014. As the attached test report notes, Takata has not been able to reproduce the cause of the rupture but it remains most likely a test anomaly. We understand that Takata is or will be noting this rupture in test summary reports.

Driver Airbag Inflator

In its December 5, 2014 response to the General Order, BMW of North America identified tests that were completed in 2003 with driver inflators related to a field incident in Switzerland, and committed to providing additional information when it was

compiled. This response supplements the December 5, 2014 response with additional information regarding those tests.

Information regarding the 2003 field incident in Switzerland was reviewed and it was confirmed that an inflator rupture occurred. No occupant was injured. The vehicle and airbag module details are as follows:

- Vehicle E46/5, VIN [REDACTED]
- Production date: January 4, 2002.
- Airbag Module Number: 01B3522T0428, PSDI-4 Inflator, Production date: December 11, 2001.

The propellant (wafer) was produced in Moses Lake, Washington. The inflator manufacture and module assembly took place in La Grange, Georgia. Takata inflator production started on December 7, 2001.

Takata's analysis at the time determined that the most likely root cause was overfilling the inflator with excessive wafers. This root cause was confirmed by Takata's testing:

- Extra Wafer – 50% of inflators ruptured.
- 2 Extra Wafers – 100% of inflators ruptured.

Any overfilling should have been identified by Takata in production with a visual inspection and a subsequent measurement check of the propellant filling. Takata advised that during the first few days of production it became apparent that the measurement process was not 100% robust and it could be possible that too many wafers could be added to the inflator.

The measurement station was modified by Takata on March 1, 2002 to ensure process robustness by adding an air pressure regulator and a volume reducer to lower the force of the mechanical sensing element.

According to Takata, the ruptured inflator was built on the 4th day of production of this product. During the first 8 days of production a large number of tests were carried out by Takata, these tests account for 5.1% of the total volume produced:

- 665 X-Rayed (3.48% of total produced volume in first 8 days).
- 224 Ballistic tests (1.17% of total produced volume in first 8 days).
- 80 Module tests (0.42% of total produced volume in first 8 days).

Per Takata, in none of these tests did an inflator rupture (Ballistic) nor was any found with an overfilled propellant (X-Ray).

BMW of North America understands that a total of 180,000 inflators were produced before the March 1, 2002 modification on the measurement station. A further change

was made to the manufacturing process during August 2003. This change added an additional weight control of the propellant.

No inflator rupture occurred in the above mentioned or subsequent manufacturing periods from Conformity of Production Testing.

Following the investigation of the original field event and subsequent root cause analysis, Takata has concluded that the Switzerland event is unlikely to be related to the current humidity issues.

BMW of North America expects to produce additional documents responsive to this General Order. BMW of North America reserved its right not to produce privileged documents that may be responsive to this General Order. BMW of North America is not claiming a legal privilege for any documents provided with this response, but it does not waive the legal privilege or work-product protection with respect to other documents that may have been prepared in connection with a specific litigation or claim. In addition, BMW of North America may assert the attorney-client privilege or claim protection under the work-product doctrine for analyses or other documents that may be prepared in connection with litigation or claims in the future.

In its search for responsive materials, BMW of North America anticipates that it may identify responsive documents in the Japanese or German languages. Consistent with the instructions in the General Order, BMW of North America will arrange for translations of each such document into English. As is the case with all the Requests herein, BMW of North America's efforts to identify responsive documents in the United States, Germany, and Japan are continuing.

BMW of North America objects to certain of the definitions, instructions and requests contained in the General Order as follows:

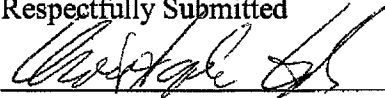
BMW of North America objects to the definition of "documents" in the General Order because it exceeds a reasonable understanding of the term "documents."

BMW of North America objects to the definition of "You" and "Your" to the extent it purports to include outside counsel. It would be unduly burdensome to require BMW of North America to request that outside counsel search files for responsive documents. Moreover, it is highly unlikely that outside counsel would possess any non-privileged documents responsive to this General Order that are not already being produced by BMW of North America. In light of the significant burden and cost associated with canvassing outside counsel for potentially responsive documents and the very low probability of identifying any non-privileged document not already being produced, BMW of North America has not asked its outside counsel to search for responsive documents.

BMW of North America understands that NHTSA will protect any private information about persons that is contained in this response, based on privacy considerations. Such private information includes data such as names, addresses, phone or fax numbers, email addresses, license plate numbers, driver's license numbers, and the last 6 digits of the vehicle's VIN.

Dated: January 10, 2015

Respectfully Submitted

A handwritten signature in black ink, appearing to read 'Christoph Huss', written over a horizontal line.

Christoph Huss
Vice President, Engineering
BMW of North America, LLC
300 Chestnut Ridge Road
Woodcliff Lake, New Jersey 07675