UNITED STATES DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
1200 New Jersey Avenue, SE
West Building, W41-326
Washington, DC 20590

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

AMERICAN HONDA MOTOR CO., INC.'S
AMENDED AND SUPPLEMENTAL RESPONSE
TO NHTSA'S GENERAL ORDER DIRECTED TO MANUFACTURERS

This report amends and supplements Honda's response to the General Order to Manufacturers issued by NHTSA on November 18, 2014 "[a]s part of NHTSA's ongoing investigation and oversight of defective Takata airbag inflators" (General Order at 1).

In the short period of time provided to respond to this General Order, Honda has interviewed numerous witnesses, and reviewed a substantial number of files. The results of Honda's investigation thus far are reflected in this Amended and Supplemental Response, and in the documents Honda is producing herewith. Given the time constraints, Honda still is in the process of reviewing files in an effort to identify additional responsive materials. Honda will supplement this response as additional responsive materials are identified.

To the extent reasonably practical under the circumstances, information and documents provided in this response are current as of December 13, 2014.

As instructed in the General Order, we are setting forth the request above our response. Except as otherwise noted, the source of the information being produced is

Honda's files and the last date on which the information was gathered was December 13, 2014. To the best of Honda's knowledge, there were no responsive documents that were lost or destroyed.

Over the past seven years Honda has been made aware of extensive testing and analysis of driver and front passenger airbag inflators conducted by TK Holdings, Inc. ("Takata"). The objective of this testing and analysis has been to identify the root cause of airbag inflator ruptures as they have occurred in consumers' vehicles as a result of crashes that caused the airbags to deploy. Takata has shared its efforts and analyses with Honda through presentations at a series of meetings between Honda and Takata. Many of these presentations have also been shared with NHTSA's Office of Defects Investigation. The Takata technical materials, including testing, from these meetings have formed the basis of Honda's own analysis of the causes of field ruptures, identification of recall populations, and have informed Honda's field action decision-making from 2008 until today.

Takata has also shared with Honda, through the Fault Tree Analysis (FTA) review process, results from its ongoing analysis of Takata's manufacturing records related to the propellant used in the inflators involved in rupture events, inflators, and modules, as well as records from non-event and non-suspect lots, used as a reference point for root cause analysis. Takata has analyzed historical lot acceptance data from production of airbag inflator propellant, housings and completed assemblies, including characteristics such as propellant density, inflator housing hydro-burst tests, helium leak tests and other production quality checks for event and non-event lots. These analyses include component and process data, which allows comparison of propellant characteristics and potential effects of manufacturing process differences. Additional testing of returned inflators has

been done using other indicators of the physical and chemical properties of the propellant and other inflator components.

In addition to Honda's field action decision-making being informed by Takata's above-described testing, analyses and expertise, each of Honda's prior recalls of its vehicles with Takata driver and front passenger airbag inflators was based on Takata's identification of production process failures during its manufacture of inflators. To date, Takata has not identified any design defect either in the propellant or the overall inflator designs. As a result, many of the countermeasures for the identified manufacturing failures were the result of routine manufacturing process and control improvements reflecting a philosophy of continuous improvement. The ongoing quality control processes, including Takata's line acceptance testing of airbag inflator propellant and other components, is used to validate manufacturing process changes, which were applied to the production of replacement parts. Honda is aware that Takata conducts quality control testing on its inflators; however, the details of the methodology, timing, and results of those tests are generated and maintained by Takata. Honda and Takata have been working closely together for the last seven years to investigate these issues.

From 2008 through June of 2014, all safety recall decisions made by Honda involving driver and passenger airbag inflators have been on a national basis. In light of that, all testing and analysis has been outside of the high absolute humidity areas identified by NHTSA in this General Order.

In June of 2014 NHTSA, based on information provided by Takata, requested that Honda support the PE14-016 investigation of driver and passenger airbag inflator ruptures outside of already recalled vehicle populations through regional safety improvement campaigns in high absolute humidity areas. Only since receiving that request from

NHTSA earlier this year has Honda focused activity on geographic areas of high absolute humidity, and even then, Honda decided to address a larger geographic area than had been identified by NHTSA and Takata. Specifically, NHTSA and Takata requested that the regional safety improvement campaigns be conducted in Florida, Hawaii, Puerto Rico and the US Virgin Islands to collect inflators, and Honda added Alabama, California, Georgia, Hawaii, Louisiana, Mississippi, South Carolina and Texas.

Honda is also aware of testing of inflators performed by third party entities at the request of Takata, including Stork CTS, Inc., Fraunhofer ICT and the High Pressure Combustion Laboratory of the Pennsylvania State University ("Penn State Study"). Stork CTS conducted metallurgical and chemical analysis of one of the field event inflators. Fraunhofer and Penn State both performed examinations of the chemical properties and performance of the inflator propellant.

Finally, in addition to Takata's testing of inflators related to field events, Takata tested inflators after a rupture of a passenger-side airbag inflator occurred during pre-production Instrument Panel testing at the Marysville, Ohio factory (Honda of America Manufacturing, Inc., or HAM) on August 29, 2012. Based upon Takata's analysis of that non-field event rupture, Honda concluded that this was a manufacturing anomaly unrelated to propellant concerns, and any affected population (two inflators) had been identified prior to any potentially affected vehicles being sold. Other non-field events examined by Takata and any resulting testing are identified and discussed herein.

The request seeks information regarding testing "of Takata inflators outside of the HAH [high absolute humidity] Region." As discussed herein, all of the testing done to date on inflators has been performed by Takata. Other than the information contained in the presentations by Takata produced herein, Honda has not located any raw test data

related to this testing. Consequently, it is not possible – unless specifically identified in Takata's reports or presentations – to state whether the inflators tested are in fact "outside of the HAH Region." Rather, the vast majority of the inflators about which Honda has knowledge of testing were collected by Honda either as part of one of the national recalls or a healthy parts collection without limitation to any geographic area. Because Honda cannot state that the inflators tested were not outside of the HAH Region, Honda has endeavored to include what it believes may be responsive information regarding testing of Takata inflators performed in the United States from 2004 to the present regarding airbag ruptures.

Honda employees and counsel have been working to gather documents from various Honda entities that may be responsive to this Request and, in fact, produced on December 5, 2014 a substantial amount of data. However, Honda reasonably anticipated that there would be responsive documents that would not have been collected or reviewed due to the time constraints imposed. Honda is producing additional responsive documents with this report. In addition, Honda continues to work diligently to collect and review documents and to interview individuals who may have relevant information responsive to the Request and will supplement this production in a timely manner as appropriate.

REQUEST

1. File a report that describes, in detail, all completed, ongoing or planned testing of Takata inflators outside of the HAH Region. At a minimum, your report must include, but should not be limited to, the following:

a. All documents regarding or relating to the testing contained in your report;

b. The location of the testing; the dates of the testing; whether the testing is completed, in progress, or planned; anticipated date of completion of testing; the nature and objective of the testing; and, testing protocols;

c. A roster of all vehicles where the inflator was tested which includes: the model; model year; vehicle build date; VIN; the vehicle's registration history, by location; inflator serial number; inflator type; dealership location with zip code where the inflator unit was returned; whether any deaths, injuries or claims are associated with the inflator in the vehicle; and, product specifications for the airbag and inflator modules in each vehicle.

d. If testing of inflators has been completed, describe in detail the results 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 Region, 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 person(s) related to the conclusion that no safety defect exists in inflators outside of the HAH Region.

e. Sub-part (e) is directed to BMW, Chrylser, Ford, GM, Honda, Mazda, Mitsubishi, Nissan, Subaru and Toyota: State in your report whether or not Takata has performed testing of inflators used in your vehicles outside of the HAH Region. If so, describe in detail what Takata has communicated to you about the testing and/or test results. Produce all documents related to Takata's testing, test

results and your communications, internal and external, related to the testing. State whether you have requested additional information from Takata concerning its testing of inflators outside of the HAH Region which you believe would assist in your determination of whether a defect exists. Identify and describe any information, documents or categories of information and documents that you reasonably believe that Takata has or reasonably should have concerning inflators or testing of inflators used in your vehicles that Takata has not provided you and which you believe would assist you in testing inflators to determine whether a safety defect exists in inflators outside of the HAH Region.

f. Provide the name, title and complete contact information for each and every manager or supervisor (at all levels of management or supervisory responsibility) involved in your investigation and decision-making process concerning rupturing airbag inflators manufactured, in whole or in part, by Takata.

g. Provide the name, title and complete contact information for each and every person who prepared and/or provided input and/or data included in the report contained in Request No. 1, including but not limited to inside or outside counsel, accountants, engineers, employees and other professionals.

RESPONSE

Over the past seven years Honda has been made aware of extensive testing and analysis of driver and front passenger airbag inflators conducted by TK Holdings, Inc. ("Takata"). The objective of this testing and analysis has been to identify the root cause of consumers' airbag ruptures as they have occurred in the field. Takata has shared its efforts and analyses with Honda through presentations at a series of meetings between Honda and

Takata. Many of these presentations have also been shared with NHTSA. The Takata technical materials, including testing, from these meetings have formed the basis of Honda's own analysis of the causes of field ruptures, identification of recall populations and have informed Honda's field action decision-making from 2007 until today. In Honda's ongoing dialogue with NHTSA about Takata airbag inflator ruptures, Honda has disclosed all field events to the Agency, and has also provided many of the Takata presentations to the Agency so that the technical basis for each field action could be understood.

In this investigation, Honda has necessarily relied on Takata's expertise and facilities for testing and analysis of Takata's proprietary propellant technology. Takata and Honda discussed and agreed upon steps to be taken at various stages of these investigations. Honda gathered modules from the field as needed by Takata for inspection, testing and analysis. Using these data, as well as their own manufacturing and quality records, Takata provided Honda with causation analysis including detailed fault tree analyses. Honda reviewed the test results and analyses with Takata in presentations made by Takata. Honda and Takata agreed on further investigative actions to be taken. Honda used these analyses to identify risk and inform its decisions to take appropriate field actions. As Honda's knowledge of these technologies increased over time its involvement in the direction of the investigations increased. However, due to Takata's expertise and proprietary technology, Takata has continued to be the source of manufacturing data, testing and physical and chemical analysis of its propellant. As a result, Honda does not believe that it was provided, and has not located in its document collection process thus far for this response, the raw test data or the testing protocols for this testing other than the descriptions in the various presentations and reports provided to Honda by Takata. If

Honda locates any such responsive information, however, it will supplement this Report and production as appropriate.

As a threshold matter, the General Order seeks information regarding testing "of Takata inflators outside of the HAH Region." In providing this response and accompanying documents, Honda does not mean to suggest that all of the testing contained in this Report was "of Takata inflators outside of the HAH Region." Prior to June of 2014, the focus of the investigation into this issue was not defined or limited by geographic scope. To the contrary, when asked to collect inflators for analysis either through its healthy parts collection or the recall process, Honda's efforts were national in scope. Honda did not limit its collection efforts to any particular region of the country, but instead gathered nationwide unless otherwise noted in the documents. Except as otherwise mentioned herein, all of the testing done to date on inflators has been performed by Takata. Other than the information contained in the presentations by Takata, Honda has not located any raw test data related to this testing, including the identification of the inflators. Consequently, it is not possible for Honda to state whether the inflators tested are in fact "outside of the HAH Region." Moreover, to the extent the presentations from Takata identify the inflators by serial numbers, Honda does not have information from which it can "match" the inflator serial number to any particular vehicle. Because Honda cannot state that the inflators tested were not outside of the HAH Region, Honda has endeavored to include what it believes may be responsive information regarding testing of Takata inflators performed in the United States from 2007 to the present regarding airbag ruptures.

Takata has shared with Honda, through the Fault Tree Analysis (FTA) process, results from its ongoing analysis of Takata's manufacturing records related to event

propellants, inflators, and modules, as well as records from non-event and non-suspect lots. Takata has analyzed historical lot acceptance data from density and crush tests, hydro-burst tests, helium leak tests and other quality checks for event and non-event lots. These analyses include component data, which allows comparison of propellant characteristics and potential effects of manufacturing process differences.

In addition to Honda's field action decision-making being informed by Takata's above-described testing, analyses and expertise, each of Honda's prior recalls of its vehicles with Takata driver and front passenger airbag inflators was based on Takata's identification of production process failures during its manufacture of inflators. Takata has not disclosed any design defect either in the propellant or the inflator designs. As a result, many of the countermeasures for the identified manufacturing failures were manufacturing process improvements and controls. The ongoing quality control processes, including Takata's lot acceptance testing of airbag inflator propellant and other components, are used to validate manufacturing process changes, which were used for replacement parts production. Honda is aware that Takata conducts quality control testing on its inflators; however, the details of the methodology, timing, and results of those tests are maintained by Takata. Although Honda and Takata have been working closely together for the last seven years to investigate these issues, Honda has recently retained Exponent, Inc., to conduct an independent evaluation of the root cause of airbag inflator ruptures in Takata airbags supplied to Honda. By letter dated November 17, 2014, Honda has requested that Takata provide relevant documents and components to Exponent for analysis, including ruptured inflators and Takata documents provided in response to NHTSA's Special Order.

Honda is also aware of testing performed by third-party entities retained by Takata at the request of Honda, including Stork CTS, Inc., Fraunhofer ICT and the High Pressure Combustion Laboratory of the Pennsylvania State University. Stork CTS conducted metallurgical analysis of one of the field event inflators. Fraunhofer and Penn State both performed examinations of the chemical properties and performance of the inflator propellant. Takata also retained a metallurgist from the University of California, Berkeley to perform materials analysis on the module in conjunction with the Penn State Study. Documents related to each of these studies and a peer reviewed paper from this research are included in this production.

In addition to Takata's testing of inflators related to field events, Honda is aware that Takata tested inflators after a rupture of a passenger-side airbag occurred during Instrument Panel testing at the Marysville, Ohio factory (Honda of America Mfg, Inc., or "HAM") on August 29, 2012. Based upon its analysis of that non-field event rupture, Takata concluded that this was a manufacturing anomaly unrelated to underlying issues. Finally, Honda has announced its intention of participating in a joint industry project to retain the services of an outside expert consulting firm to evaluate the root cause of these failures.

Honda employees and counsel have been working to gather documents from various Honda entities that may be responsive to this Request. Indeed, Honda made a substantial document production in response to this request on December 5, 2014. However, Honda reasonably anticipated then that there would be responsive documents that may not have been collected or reviewed due to the time constraints imposed. Honda has located additional responsive documents, and is providing them today in a supplemental document production. Honda continues to work diligently to collect and

review documents and to interview individuals who may have relevant information responsive to the Request and, if additional responsive documents or information is identified, Honda will supplement this production in a timely manner as appropriate.

Takata testing of inflators from 2007 – present

In the first half of 2007, Honda became aware of three incidents in which the Takata driver frontal airbag in a Honda vehicle ruptured during deployment in a crash and injured the driver.

Honda notified its supplier Takata of these 2007 incidents and, with Honda's support and cooperation, Takata began an investigation to determine the root cause of the failures. Since this investigation began in July of 2007, Takata has conducted a variety of tests and extensive analyses, including analysis of inflators from outside the HAH region collected by Takata from salvage yards both healthy and suspect inflators collected by Honda through the recall and SIC processes and healthy parts collection process. Through the recall process and SIC processes, Honda has collected through its dealerships thousands of frontal driver and passenger airbag module inflators, including inflators from event lots and surveillance lots both in and primarily outside of the HAH region, that have been provided to Takata for analysis and testing to determine the root cause of these failures. As a result of the tests performed by Takata on these inflators and Takata's shared analysis of that testing and the supplier's own manufacturing processes, Honda initiated a series of recalls for driver frontal airbags in certain Honda and Acura vehicles, and later for passenger frontal airbags.

Honda has worked continuously to identify recall and campaign populations based upon our analysis of evidence obtained from testing, inspections, and detailed

analyses provided by Takata of airbag inflator product and process records.[1] These tests and analyses began almost immediately after reports of the three events occurring in 2007 and continue to this day. On Tuesday, December 2, 2014, Honda called for coordinated, industry-wide third-party testing of Takata airbag inflators with the goal of ensuring that all inflators requiring replacement are accurately identified and fixed as quickly as possible.

As noted, to facilitate this testing and analyses, Honda has collected and provided to Takata various component parts for testing. Specifically, Honda has recovered recall and SIC parts, both from the event lots and surveillance lots and provided those to Takata through the recall processes. As part of that process, Honda instructs all Honda and Acura dealerships through the relevant Service Bulletin to return the original inflator to the supplier, Takata, within 48 hours of removal in the return shipping box in which the new inflator was shipped. Honda is aware that some of these parts have been used in destructive teardown inspections, and some have been deployed. These parts have been subjected to chemical analysis of materials, metallurgical analysis, microscopic analysis of fracture surfaces, weld seam analysis, tape seal analysis, analysis of the degree of and effect of moisture gain, recreated failure mode testing, leak tests, propellant density, crush testing, air leak testing after thermal cycling, and recreation of the failure modes seen in field events. Analysis of recovered components has considered the time from propellant manufacture to rupture and environmental characteristics of the region of origin. These analyses have been integrated into Takata's fault tree analyses for both driver and passenger rupture root cause analysis and shared with Honda. Honda has relied upon Takata's testing and detailed analyses of component parts and its manufacturing

[1] Honda initiated Recall 10V-401 based upon its review of Takata records.

process to determine the initiation and scope of its field actions. These detailed fault tree analyses have been previously shared with NHTSA.

Additionally, Honda has collected "healthy parts" from the market at Takata's request for both driver and passenger frontal airbags at various times during its root cause investigations. Also, as they are reported to Honda, rupture event component parts that Honda has been able to obtain are being collected and sent to Takata for inspection. (See letter dated November 5, 2014 from J. Joseph to F. Borris.)

Beginning in June of 2014, Honda joined Safety Improvement Campaigns (SIC), for driver airbag inflators and passenger airbag inflators, along with other manufacturers who use Takata airbags, and in cooperation with NHTSA and Takata. Honda's SIC area is broader than that requested by NHTSA and includes areas beyond the HAH region as defined by NHTSA. As part of these campaigns, Honda is collecting driver and passenger frontal airbag inflators removed from vehicles through the two regional SICs and providing those inflators to Takata for testing. Last month Honda converted the passenger airbag regional SIC into a regional safety recall, and on December 3, 2014, Honda announced its intention to expand its regional driver airbag SIC into a nationwide SIC.

Inflator testing prior to 08V-593 Recall

Takata and Honda began holding a series of information exchange meetings beginning in July of 2007, after a series of three incidents involving the rupture of airbag inflators assembled between October 31 and November 15, 2000. Takata informed Honda that given the narrow time period during which these three faulty inflators were produced, it initially focused on inflators and propellant produced during that time period, and attempted to identify any process issues in and around that time period that could have led to the malfunctions. Takata explained the production history of the incident modules and

created an initial Fault Tree Analysis. See "Information Review with Honda of America: Civic Issue" dated July 23, 2007 incorporated herein by reference. Takata subsequently shared its analysis of its ballistic data, weld data and hydro-burst data. Takata also intentionally created a high energy deployment and compared it to the field event, concluding that it was not similar. In this initial meeting, Takata also proposed destructive testing on the one ruptured field inflator received from Honda. See "Information Review with Honda of America: Civic Issue" dated July 31, 2007 incorporated herein by reference.

In a presentation on August 20, 2007, Takata informed Honda of the results of the metallurgical analysis conducted at Takata's request by third party Stork CRS, Inc. on the airbag inflator component recovered from Case 1. Case 1 involved a driver frontal airbag inflator of a 2001 Honda Civic. The vehicle was registered in the state of Arizona at the time of the event on February 9, 2007. The crash caused personal injuries to the driver of the vehicle. Stork concluded – consistent with Takata's previously stated position – that a material defect in the canister was not the likely cause of the event. Rather, the part fractured because it experienced forces during testing that exceeded its load-bearing ability. For a detailed discussion of the testing methodology, objectives, and results see "Stork CRS Report Number 07-08-0612" dated August 13, 2007; see also Takata's presentation entitled "Information Review with Honda of America: Civic Issue" dated August 20, 2007; "Information Review with Honda of America" dated August 10, 2009. Based in part on this testing, Takata focused on density degradation due to moisture.

In August of 2007, Takata collected 43 samples of Civic and Accord driver frontal airbag modules with May 2000 to September 2002 inflator manufacturing dates from salvage yards across the country. Takata performed helium leak checks on all the parts,

and determined moisture and density readings for each part. All parts passed the helium leak check and the propellant moisture and density readings were within expectations.

Takata devised a salvage yard deployment/teardown procedure for the 43 samples. Half of the 43 samples were deployed by Takata, and half were disassembled for analysis. None of the deployed parts failed. Based upon the limited identifying information provided by Takata, it appears that many of these salvage yard inflators collected by Takata were gathered from outside the HAH region. Identifying information for these salvage yard inflators and details of the testing proposal, objectives, and results are contained in Takata's presentation entitled "Information Review with Honda of America: Civic/Accord Issue" dated September 6, 2007 and "Information Review with Honda of America" dated August 10, 2009.

After completing its analysis of the production records and its limited component analysis, Takata identified two processes that, taken together, could have resulted in elevated moisture levels in the propellant. First, Takata had instituted 100 percent inspection of the wafers at Moses Lake facility resulting in potential exposure of the wafers to moisture. Second, inflators produced at Takata's LaGrange, Georgia, facility were subject to tape hold time wherein parts were assembled and welded on one day, and leak-checked typically one or more days later. Takata hypothesized that combined exposure during the tape hold and 100 percent inspection resulted in unintended additional moisture growth and subsequent propellant degradation. Takata presented this hypothesis and a proposal for inflator testing to Honda at a briefing on September 28, 2007. At this meeting, Takata also provided further results of its "salvage yard" field returns analysis and its proposal for moisture study tests. See Takata's presentation entitled "Accord/Civic Issue Information Review with Honda" dated September 28, 2007.

Takata conducted a series of induced moisture tests on the recovered salvage yard inflators to assess whether moisture could cause the observed field condition. On November 2, 2007, Takata presented its moisture matrix proposal, objectives, and test results at the November 2 meeting. The testing showed that the inflators demonstrated increased aggressiveness with increasing moisture and increasing exposure times. The details of Takata's testing protocol, objectives, and results of this moisture testing is more fully explained in Takata's presentations "PSDI Discussion" dated November 2, 2007 and "Information Review with Honda of America" dated August 10, 2009.

To further test its hypothesis, in January of 2008, Takata proposed that Honda collect 85 field units from event lot(s) propellant, i.e., October 30 – November 15, 2000, for further study. Takata's testing proposal for the collecting of modules is detailed in presentations "Accord/Civic Issue Information Review with Honda: Module Recovery" dated January 22, 2008; "Module Recovery Proposal" dated January 25, 2008; "Accord/Civic Issue Information Review with Honda: Module Recovery" dated April 2008 incorporated herein by reference.

Honda collected 86 driver airbag module samples from the event lots of the propellants from the three malfunctioning inflators. Takata statically deployed a total of 40 recovered inflators to assess whether they would malfunction. Deployments of event lot inflators from the field recovery resulted in three energetic deployments and one high output deployment. It is Honda's understanding that Takata's testing found no malfunctioning inflators produced with propellant outside of the event lot inflators. Takata also performed live dissections to evaluate the dimensions, density, strength/crush, hardness, and gloss of the event lot propellant. Examination of the batwings from the Honda-supplied field return parts from the event lots showed clear separation of certain

characteristics between event lots and non-event lots. Takata analyzed the recovered inflators and found that propellant from the event lots was less dense, softer, and less glossy than propellant from outside of those lots. Takata determined that each of these factors could be an indicator of potential degraded propellant performance in the event lots. This separation formed the basis for the surveillance criteria. See "Information Review with Honda of America" dated August 10, 2009.

Based upon all of the aforementioned information available at that time, including the results of the salvage yard and event lot part testing, Takata proposed a preliminary causation theory and suspect range to Honda. Takata attributed the defect to handling of the propellant during inflator assembly that could have yielded increased moisture levels that, when coupled with thermal cycling over time, led to reduced propellant density and subsequent overly aggressive combustion during airbag deployment, leading to overpressurization and module rupture. Based upon the information presented by Takata, Honda submitted a Part 573 report to NHTSA initiating Recall 08V-593.

In addition, Honda further agreed that it would use the recall process to collect additional inflators that were manufactured around this time period (surveillance lots) for additional analysis to confirm the root cause hypothesis espoused by Takata. Takata's proposal for additional field recovery is outlined in its "Presentation to Honda American Manufacturing" dated October 10, 2008.

Inflator testing prior to Recall 09V-259

On March 12, 2009, Takata presented Honda with its proposed Propellant Analysis Procedure and the initial results from surveillance lot returns. The Surveillance Return Analysis Procedure and the results of Takata's field surveillance testing and analysis can be found in the presentation entitled "2001 Accord/Civic Driver Inflator

Recall Status" dated March 12, 2009; and "Information Review with Honda of America" dated August 10, 2009.[2]

On June 12, 2009, Takata presented the results of its propellant lot analysis which showed density differences by lot identified, especially differences between the Stokes and Gladiator propellant presses. More specifically, Takata observed that there appeared to be distinct populations of propellant tablets depending on the compaction press that was used to produce them. The density of tablets recovered from the field that were produced using the Stokes press exhibited a significantly lower mean density than the tablets produced using the Gladiator presses. Takata's testing of the collected inflators also showed density difference between "new" and "reprocessed" propellant lots. As a result of Takata's testing and analysis of the propellant in the surveillance inflators, Takata concluded and Honda agreed, after reviewing the information provided by Takata, that Takata's initial theory of causation was incorrect.

Takata's continuing investigation into the cause of the airbag ruptures, including extensive analysis of numerous inflators gathered from the field, revealed that the cause of the airbag ruptures was not due to the handling of the propellant during assembly as previously thought, but appeared to be related to the process of pressing the propellant into wafers that were later installed into the inflator modules. Takata arrived at this conclusion primarily on the basis of its analysis of the propellant in the surveillance inflators obtained by Honda in connection with Recall 08V-593. Takata's conclusion was confirmed by its analysis of the surveillance inflators later obtained in connection with

[2] Takata also completed a data analysis of the 2002 Healthy Car Recoveries from lots related to Case 0. (Case 0 was the 2004 rupture of a driver airbag inflator in a 2002 Honda Accord.) The 2002 Healthy Car Evaluation Plan consisted of conducting the same analysis of 10 driver side modules from Case 0. The analysis led Takata to conclude that Case 0 had distinctly different characteristics than the other events involving propellant manufactured in the fall of 2000. See "Information Review with Honda of America" dated August 10, 2009 and "Analysis of Event 0 MY02 Accord."

Recall 09V-259. Honda refers NHTSA to Takata's June 12, 2009 presentation entitled "2001 MY Accord/Civic Trouble Report" and "Information Review with Honda of America" dated August 10, 2009.

As a result of the information provided to Honda by Takata regarding its testing and analysis, Honda determined that the VIN range for recall 08V-593 should be expanded and initiated Recall 09V-259. Honda's decision was based upon Takata's analysis of airbag inflators and the occurrence of additional deployments similar to those that led Honda to initiate the 08V-593 campaign, but outside of the range of the recall population for that campaign.

Additional testing of surveillance inflators after 09V-259 recall

As with the first recall, Honda continued its collection of returned inflators from the 09V-259 recall. Honda dealerships continued to ship original modules removed during the recall process to Takata for examination and testing. These inflators were not limited to any specific geographic area; rather, all inflators removed during the national recall process were provided to Takata. The proposal for the collection of surveillance inflators is detailed in Takata's June 12, 2009 presentation entitled "2001 MY Accord/Civic Trouble Report" and September 1, 2009 presentation entitled "PSDI Meeting: TKH Auburn Hills." The purpose of the collection and testing of these surveillance inflators – primarily those manufactured with propellant produced after February 28, 2001 – was to allow an assessment of whether the second recall in fact addressed all vehicles that could possibly have a problematic inflator.

In October, November, and December of 2009, Takata and Honda had a series of meetings wherein Takata presented details related to its testing and analysis of surveillance modules. Takata indicated to Honda that it concluded that the surveillance

lot airbag inflators received were within design specifications or, if deployed, performed as designed. These tests and analyses are detailed in the series of presentations by Takata to Honda. See FTA Test Main Compaction Force; FTA G3 Worst Case; PSDI Manufacturing Process; 2004 Propellant Properties: Low Density: Pressed vs. Post-TC; Binding Forces in Propellant Powder Compacts; Burn Rate; 60K Moisture Studies; Contamination Test; Takata US Temperature Zones and Stokes G1 G2 & G3 Measurements; TKH Analysis of Weight and Dimensions of Stokes Wafers; TKH Change in Density in Stokes Lots by Month; TKH Contamination Test; TKH Density Analysis by Date of Manufacture; TKH Length vs. Density Histogram; TKH Low Density Propellant FTA; TKH Moisture in Event Lots; TKH Monthly Dimension Measurements; TKH PreCompaction FTA; TKH Scanning Electron Microscope Density Analysis; TKH Stokes and Gladiator Comparison; TKH US Temperature Zones; TKH Analysis of Stokes & G1 Wafers by US Temperature Zone; TKH Density vs. Length After Thermal Cycle & Shock; TKH Density vs. Length After Thermal Cycle & Shock No. 2; TKH Moses Lake Moisture Analysis; TKH New vs. Recycled Lots; TKH New vs. Recycled Lots – October to December 2000; TKH Study of Moisture I Event Lots 1-11; TKH Study of G3 Wafers after Thermal Cycle and Shock; TKH Study of G3 Wafers after Thermal Cycle; TKH Study of Length and Density of Event Lots; TKH Lot Density Analysis; TKH Method of Phase Stabilization of PSAN; TKH Low Density Propellant FTA Discussion; TKH Comparison of Stokes and Gladiator; TKH Comparison of Gladiators; TKH Assurance of Hardness of G1 Wafers.

While the inflator tests confirmed Takata's root cause analysis and conclusion, Honda's review of the manufacturing records for all of the airbag inflators led Honda to focus on one process involved in the manufacture of the inflator propellant. There were

two manufacturing processes used in preparing the inflator propellant. One process automatically verified all propellant as being within specification. Honda did not have the same confidence, however, that the other process was as reliable. Therefore, despite testing that showed proper performance of inflators that were collected from the surveillance lot range, Honda decided that it could not entirely rule out the possibility that parts in the expanded population could be out of specification and thus potentially perform improperly. Consequently, Honda decided to expand the scope of its second recall and initiate what became Recall 10V-041.

The same test results and analysis that caused Honda to initiate Recall 10V-041 led to Recall 11V-260. The June 2009 and February 2010 recall expansions included vehicles that had received replacement service part driver's airbag modules that were produced in the same time frame as the potentially affected airbag modules that were installed as original manufacturer equipment. From March 2010 through March 2011, Honda continued to analyze the sales transaction history of potentially affected driver's airbag module service parts to determine how many parts could not be accounted for and thus captured through the prior recall expansions and associated notices. After an exhaustive analysis, Honda determined that a number of potentially affected replacement service part driver's airbag modules had been sold through dealers, but could not be accounted for using the controlled parts system and, therefore, Honda felt it was necessary to initiate Recall 11V-260 whereby owners were instructed to return their vehicle for inspection of the airbag module serial number to determine if it came within the recall range. While Honda continued its efforts to investigate the root cause of airbag ruptures, testing regarding the manufacturing defects that resulted in Recalls 08V-593, 09V-259, 10V-041, and 11V-260 had been completed.

Fraunhofer ICT Report

Honda understands that Takata, through its counsel, retained Fraunhofer ICT (Institut for Chemische Technologie) to perform chemical analysis and characterization on PSDI propellant recovered from the field and to compare against new propellant provided by Takata to Fraunhofer. The Fraunhofer report was dated March 1, 2010, and Honda received the report from Takata no later than May 12, 2010.

According to the report, Fraunhofer analyzed the internal gas samples from five driver side inflators manufactured in 2000, and five new driver side inflators provided by Takata. These gas samples did not identify any abnormal levels of ammonium nitrate decomposition byproducts. Fraunhofer performed X-ray diffraction on propellant manufactured in 2000 at temperatures from room temperature to 100 degrees Celsius. The X-ray diffraction did not identify any temperature related phase transition of the propellant through this temperature range. Fraunhofer compared the heat of explosion from new propellant and propellant manufactured in 2000; no significant changes were observed. Fraunhofer also conducted thermal gravimetry and differential scanning calorimetry testing on new propellant and propellant manufactured in 2000; no change in thermal behavior in any propellant up to 100 C was observed.

Fraunhofer concluded the report by noting: "All investigations performed concerning phase stability, chemical stability and performance showed no significant changes between newly produced propellant and propellant recovered from disassembled inflators." Honda's understanding of the Fraunhofer test results is that Fraunhofer observed no changes in the propellant between room temperature and 100 degrees Celsius.

Honda does not believe that it was provided, and has not located in its document collection process thus far for this response, the raw test data or the testing protocols other than the descriptions in the report. If Honda discovers or receives responsive information regarding the Fraunhofer report or work, it will provide this supplemental information to NHTSA.

HPCL Work

At the request of Honda, Takata began discussions with professors affiliated with the High Pressure Combustion Laboratory (HPCL) at Pennsylvania State University (Penn State) and the Department of Civil Engineering at the University of California, Berkeley as early as 2010. Honda was included in some of the discussions that led to a scope of work for the HPCL which included an examination of the burn pattern behavior of the propellant in PSDIs included in the previous recalls. Dr. Ken Kuo led the work for the HPCL.

As part of that process, Takata also retained Dr. Sanjay Govindjee to consult with Honda and the HPCL on the material properties of the inflator canister. Dr. Govindjee completed a Finite Element Model for the canister, but then Dr. Govindjee's involvement lessened as the HPCL focused on the propellant as the source of energetic deployments.

HPCL provided a proposed test program to Takata in January 2011 and provided Takata with a list of requested materials in February 2011. By May 2011, Takata provided HPCL with new-production propellant, new-production PSDIs, recovered PSDIs, new manufactured batwings at specification density, new-production batwings at lower than specification density, and assorted components and batwings recovered from Northern and Southern regions.

On June 17, 2011, Takata provided the HPCL with an analysis of estimated vehicle interior temperature under a variety of geographic and thermal exposure conditions (the Vehicle Interior Temperature Study) and the March 2010 Fraunhofer study, discussed *infra*. The Vehicle Interior Temperature Study included the locations of known field events, calculated maximum and minimum temperatures for vehicle cabins in Madison, Wisconsin and Phoenix, Arizona, and data on vehicle cabin temperatures for various locations within the United States.

From time to time during 2010 to 2012, Honda employees provided technical support for the HPCL research and participated in technical exchanges with HPCL. This support included answering questions, reviewing presentations and asking questions about the testing protocol and observed results. Honda also sent technical questions to Takata, particularly about specific issues related to propellant testing.

Documents dated July 20, 2011 note the HPCL was still working on the setup for testing of PSDI units. Beginning in the second half of 2011, HPCL conducted the following types of testing: PSDIs were deployed in a 60-L instrumented chamber; propellant batwings were deployed in an HPCL-created instrumented secondary chamber (ISC), propellant was burned on a strand burner, PSDIs from suspect production lots were tested in open-air environments, dynamic burning measurements were done on Takata's 2004 Propellant formula, and material analysis was done on new and recovered batwings.

During the testing process, HPCL provided Takata and Honda with periodic updates on the progress of the test setup and the experimental observations. These periodic updates included presentations by HPCL in December 2011, March 2012, April 2012 and June 2012, which are all attached. In early July 2012, Honda and Takata reviewed a draft paper discussing some of the work undertaken at the HPCL. Earlier, the

paper had been edited for comments by Takata. The draft circulated in early July described a dynamic burning behavior for phase-stabilized ammonium nitrate propellant slugs under the test conditions.

In October 2012, Honda asked Takata for answers to questions regarding dynamic burning theories advanced by the HPCL researchers. In response, Takata noted that it was exploring options other than continuing work with the HPCL, and that the HPCL was still gathering data. Takata expected to review conclusions from the HPCL and explore follow on activities in the next month. HPCL provided Takata Holdings with a draft final report in November 2012. See Final Report, November 16, 2012. The main conclusion was that the proximate cause of the energetic deployment events was over-pressurization of the PSDI, not a structural flaw in the PSDI.

In the report, HPCL included discussion of a number of test results. Two cases of runaway pressure (simulating energetic deployment) events occurred in the ISC testing of recovered Southern batwings. As the density of batwings decreased, the maximum pressure during ISC testing increased. During the 60-L testing, four energetic deployment events occurred in PSDIs from production lots known to exhibit anomalous behavior and recovered from production vehicles.

HPCL also made a number of observations. First, materials analysis of the propellant indicated that "known bad" propellant (propellant from the primary combustion chamber where the secondary chamber deployed with higher than expected pressure) had higher porosity compared with new-production propellant. Second, the strand burning testing indicated that a dynamic burning effect could occur during rapid pressurization, leading to chamber over-pressurization. Third, the pressure observed during ISC deployment appeared to increase as the propellant density decreased.

HPCL further hypothesized that the maximum temperature the propellant could encounter might exceed previously tested temperature values. In particular, HPCL hypothesized that the maximum temperature could exceed 115 degrees Celsius, leading to changes in the propellant microstructure and burning behavior.

Honda and Takata held a joint meeting to discuss the status of the HPCL work in January 2013. At that presentation, Takata employees provided the current testing status, their analysis of the test data and a summary as part of the HPCL Draft Final Report Review PowerPoint. Takata made a number of statements in the presentation. Deployment of inflators produced by Takata from production lots known to exhibit anomalous behavior resulted in four energetic deployment events, but deployment of new-production inflators did not result in energetic deployment events. The HPCL data confirmed that the burning rate of propellant increases as propellant density decreases. Takata also agreed that two runaway pressure events occurred during testing of recovered Southern batwings. There were no energetic deployment events observed during testing of new-production batwings and recovered Northern batwings.

Takata disagreed with HPCL's conclusion that dynamic burning rate enhancement actually occurred in the propellant. Takata's disagreement centered on the consistency of the data, analysis of field performance and measured performance in test conditions other than the HPCL strand burner device. At the presentation, Takata also reported that the materials analysis testing as described in the November 2012 report was incomplete and future work on X-ray diffraction and porosity testing would continue.

Honda's current understanding is that Takata planned to discuss further potential analysis and testing with HPCL in the summer of 2013. Honda is not aware of any current testing being done by HPCL.

Analysis of inflators after IP Testing rupture

In August 2012, HAM began production of the seamless instrument panel ("IP") for the 2013 Honda Accord. During that time period, HAM conducted a series of passenger side airbag deployments at its Marysville, Ohio facility to confirm the performance of the seamless IP. Specifically, HAM deployed 24 modules with PSPI-X inflators in its pre-production IP testing. The testing involved simultaneously deploying the primary and secondary inflators (0 ms delay) at room temperature on a test IP. The testing was not performed in an actual vehicle. During testing on August 29, 2012, an inflator used in the testing ("HAM test inflator") experienced an energetic deployment. The serial number for the module used in that test was P0R1K00C4 and the serial number for the HAM test inflator was TXBGC6W1739. See August 30, 2012 Meeting Minute and October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis".

HAM collected the majority of the test inflator components and submitted them to Takata for analysis. As set forth fully below, Takata determined the root cause of the HAM test inflator energetic deployment was excessive crimping to the inflator bulkhead, which occurred during the manufacturing process when a bolt dislodged from the manufacturing equipment and was caught in the operation area. This resulted in excessive crimping to two inflator bodies, one of which was rejected during the manufacturing process, the other of which was utilized in HAM's seamless IP testing described above. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis" and May 15, 2013 presentation entitled "Assistant SRS Unusual Deployment Performance Confirmation Test Failure Investigation Report".

With respect to the history of the involved components, the HAM test module was shipped from Takata to HAM on July 6, 2012. Information from Takata indicates it passed the electrical testing and that the inflator body assembly material met the required materials standards. The HAM test inflator was manufactured on June 29, 2012, with an inflator body manufactured March 13, 2012 by Miyata. Takata provided trace data for the HAM test inflator components. Lot Acceptance Test (LAT) values were within expected limits. All of the propellant data was within specification and consistent with the inflators manufactured before and after the HAM test inflator (that is, serial numbers TXBGC6W1738 and TXBGC6W1740). Takata also determined all propellant moisture readings were within specification, including those from the HAM test inflator. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis" and September 5, 2012 presentation entitled "Unusual PSPI-X Deployment Initial Analysis".

Takata performed FTA for the HAM test inflator rupture. Takata eliminated "Pressure Too High" as the cause of the test inflator rupture. Takata did not see any evidence that the propellant was of concern based on LAT and sister unit test results since all values (weight, diameter, height, density, and moisture) were within expected limits. The outlet area was not a concern based on examination of post-event hardware and testing with holes blocked by a damaged filter, which did not produce an anomaly. Takata did not disclose that it found any evidence of a high pressure ignition system, nor indicate that it found anything unusual with the environment or deployment condition. Takata tested an additional 30 inflators from the event lot at +85 degrees Celsius and all functioned normally. Takata also tested additional inflators and measured chamber pressure characteristics, and all appeared to be normal. These tests supported normal

operating pressures in the inflators. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis."

Takata then analyzed "Strength Too Low" in its FTA. Takata ruled out an inadequate tube weld as the cause since it was intact after the event. In addition, Takata ruled out inadequate body material since the material certifications were normal, chemical and hardness analysis by Element Materials Technology ("Element") was normal, and Hydro-burst testing of sister units was normal. Takata considered inadequate partition material, but indicated it found no evidence the partition material contributed to the event since the partition thickness was normal and the partition was in good condition post-incident. With respect to inadequate crimping, Element's analysis ruled out the body crimp as the source of the anomaly. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis."

Takata's investigation focused on inadequate bulkhead crimps and the coining process. Element analyzed the primary fracture face and the cross-sections of the secondary chamber at the bulkhead. Their analysis confirmed an unusual structural situation related to the partition crimp, which was the region where the fracture originated. Element's preliminary assessment was that the failure initiated along the bulkhead crimp and the HAM test inflator had an area of thinned metal in the crimped region. The HAM test inflator also had a sharp edge in the crimp profile. None of the samples from the event lot had a similar sharp edge profile. In addition, Element measurements revealed evidence of a slanted partition. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis."

Takata conducted Re-creation Testing as part of its analysis, including at least 85 re-creation tests in 34 different configurations. There were no energetic deployments in

normally loaded inflators at normal temperatures. There were five energetic deployments in samples deliberately loaded to create moderately high pressures. Hydro-burst testing resulted in failure at the partition crimp, which identified the concern with the sharp-edged partitions. Takata also evaluated the potential for and effect of body crimp damage from deformation force during the manufacturing process through FTA, and performed PSPI-X Partition Crimp Failure FTA Testing and Re-creation Trials. See October 1, 2012 presentation entitled "Unusual PSPI-X Deployment Summary of Event and Analysis".

Takata ultimately determined the following with respect to the HMA test inflator:

> On March 13th 2012, when partition was being crimped to the inflator body of the passenger side airbag inflator, a bolt (foreign material) came off and was caught in the operation area of equipment. This caused excessive crimping. Too much load was added to the crimping area and inflator body strength decreased.

Specifically, Takata determined excessive crimping occurred in two inflators. The excessive crimping occurred when a fixed bolt from the press head fell and dropped on the cam slider, and bolt tucking occurred between the press head and cam slider during crimping machine operation. The crimping left two screw marks on both the press head and cam slider, meaning the crimping with the bolt tucking only occurred during two press cycles. An operator rejected one of the inflators based on a visual check during the manufacturing process, but the other overly-crimped inflator was not detected during the visual inspection and was ultimately packaged. This is the inflator that HAM used in its IP testing. See May 15, 2013 presentation entitled "Assistant SRS Unusual Deployment Performance Confirmation Test Failure Investigation Report."

Takata contemplated countermeasures to reduce the likelihood of this occurring in the future, including visual checks for bolt looseness on the equipment, annual overhauls to molds and bolt changes, and the installation of foreign material detection sensors for the crimp matching operation area. Takata also planned countermeasures to prevent outflow to the market in the event it does occur, including but not limited to visual checks of the crimping profile and 100 percent inspection of crimping diameter by a no-go gauge. Takata did not conduct a field action as a result of this incident since both parts affected by this issue did not enter the marketplace. See May 15, 2013 presentation entitled "Assistant SRS Unusual Deployment Performance Confirmation Test Failure Investigation Report".

Testing Related to Passenger Airbag Modules

On February 3, 2012, Honda confirmed a rupture of a Takata passenger airbag inflator in Puerto Rico on October 20, 2011. On March 14, 2012, using the ongoing driver's airbag recall, Honda proposed to NHTSA the collection of healthy passenger airbag inflators to provide to Takata to study the condition. NHTSA did not object. Honda began collecting healthy passenger airbag modules from vehicles being brought in for the existing national driver airbag recalls.

Takata conducted an analysis of the Puerto Rico event inflator and tested multiple healthy passenger airbag modules in an attempt to identify the root cause of the incident. Takata hypothesized multiple possible event scenarios based upon the very limited hardware recovered. Takata presented its FTA and Testing Analysis to Honda. Takata conducted initial re-creation testing and proposed four test protocols targeted at evaluating the first level FTA items. Takata conducted a moisture and density margin study to determine sensitivity as to the as-manufactured condition on collected healthy modules.

Takata also conducted an aggressive propellant simulated propellant damage effects on healthy passenger airbag modules collected by Honda. Takata indicated that the testing with simulated compromised propellant (substituting 3/16" x 0.090" tablets for wafers) showed the expected trend – increasing fractions of tablets increased output to the point of ED (1 of 2 ruptured at 50% weight fraction). Takata did testing to verify that the closure rupture mode due to high internal pressure is different from the closure rupture mode observed in the recovered inflators. Finally, Takata proposed to conduct a build condition margin study to determine the effect of a missing bulkhead crimp on the inflator. After a series of tests, Takata concluded that while the re-creation testing had duplicated the appearance of the Puerto Rico event inflator, the cause remained unidentified. See Puerto Rico PSPI Event Discussion dated April 23, 2012 for details regarding Takata's protocol, objectives, and test results.

On July 28, 2012 a rupture event occurred in Japan during the controlled dismantling of a 2001 Honda Fit's single stage SPI passenger's airbag inflator (as opposed to the dual-stage PSPI passenger airbag inflator used in the U.S.) The "dismantler" processes airbags for disposal. In Japan, when a vehicle reaches the end of life, all airbags are deployed and disposed of by a certified dismantler. This process is assured by the collection of an airbag bounty fee when a vehicle is originally sold. The fee is returned upon disposal of the airbags. This process prevents undocumented reuse of airbags, which would otherwise complicate recalls when salvage parts have been installed in vehicles that remain in use, with no traceability of the salvage airbag. Subsequently, three other SPI inflator ruptures occurred in Japan during the same dismantling process of 2001 Fit passenger airbag inflators on August 21, 25, and 27, 2012.

These four events occurred outside the U.S. after Honda proposed to NHTSA the collection of healthy passenger airbag inflators in the U.S. to provide to Takata for testing as a result of the rupture event on October 20, 2011 in Puerto Rico (discussed *supra*), but Honda and Takata analyzed the Puerto Rico and Japan incidents collectively because there were common elements, such as the propellant and inflator manufacturing facilities between the 2001 Fit and the Puerto Rico event. See Honda's December 5, 2014 Response to NHTSA's General Order Directed to Manufacturers p. 32 ("Testing Related to Passenger Airbag Modules").

Takata' s analysis and re-creation testing of propellant production using the same methods as the 2001-2002 production periods indicated that it was possible for propellant produced during 2001-2002 to be manufactured out of specification without the manufacturing processes correctly identifying and systematically removing the out of specification low density propellant. Takata also determined that the propellant at issue may have absorbed moisture during storage that could affect the performance of these airbags. On April 4, 2013, Honda completed its investigation and determined that a safety related defect existed and initiated safety recall 13V-132 for passenger side airbags in certain Honda vehicles. The same analyses and conclusions were also presented to the NHTSA Office of Defects Investigation on April 4, 2013. See Honda Passenger Airbag Inflator Investigation Summary, Presentation to NHTSA ODI April 4, 2013 for a discussion of the Puerto Rico and Japan dismantler investigations.

Again, Honda does not believe that it was provided and has not located in its document collection process for this response the raw test data or the testing protocols used by Takata other than the descriptions in the report. If Honda discovers or receives

responsive information regarding this work, it will provide this supplemental information to NHTSA.

Takata subsequently confirmed abnormal combustion of propellant from the healthy parts collected and Honda reported such to NHTSA on November 21, 2012, though the cause could not be determined at that time. Later study revealed that the automatic rejection system was not properly activated at Takata's Moses Lake facility, and therefore, failed parts flowed out to the market after the press load became low and low density propellant was produced. On February 8, 2013, a meeting was held between NHTSA and Honda to discuss the ongoing investigation into passenger airbags.

On March 6, 2013, re-creation testing by Takata of propellant production using the same methods as were used during 2001-2002 production periods indicated that it was possible for propellant produced during 2001-2002 to be manufactured out of specification without the manufacturing processes correctly identifying and removing the out of specification low density propellant. Honda was also informed by Takata that the propellant at issue may have absorbed moisture during storage that could affect the performance of these airbag modules. On April 4, 2013, Honda completed its investigation and determined that a safety related defect existed and initiated safety recall 13V-132 for passenger side airbags in certain Honda vehicles. This was a national campaign because a re-creation of production methods used during 2001-2002 indicated it was possible for propellant produced during 2001-2002 to be manufactured out of specification without the manufacturing processes correctly identifying and removing the out of specification propellant.

On May 14, 2013, Honda was notified of a single-stage passenger airbag inflator rupture outside of the United States. The type of inflator involved had not been installed

on Honda or Acura vehicles in the United States. On June 4, 2014, Takata notified Honda of three occurrences of passenger airbag inflator rupture involving vehicles manufactured by other OEMs. On June 11, 2014 Takata notified Honda that there was a possibility that the production records of the auto-reject function used in determining the 13V-132 recall range may have been incorrect or incomplete and that the methodology used to identify the range of affected airbag inflators was inadequate. On June 19, 2014, based upon information supplied by Takata, Honda determined safety recall 13V-132 required expansion to include passenger airbag inflators on all potentially affected vehicles including 2002-2003 model year Honda Civic, CR-V and Odyssey automobiles, and 2003 model year Honda Accord, Element and Pilot, and 2003 Acura MDX vehicles. This expansion was subsequently identified as safety recall 14V-349. This expansion was also a national campaign. On July 3, 2014, Honda submitted a list of vehicles affected and on July 11, 2014 Honda updated the VIN range and total number of potentially affected vehicles for 14V-349.

Honda refers NHTSA to its presentation to NHTSA entitled "NHTSA ODI PSPI Final" dated February 8, 2013, for details of Honda's investigation into passenger airbag events, Takata's healthy part analysis and results, and fault tree analysis confirmation results related to passenger airbag events and Analysis results of recovery under PSPI market measures presentation dated September 20, 2013. These presentations include limited identification of various inflators collected from healthy parts collection that were tested by Takata.

Sympathetic Inflator Ignition and Recall 13V-412

On September 18, 2013, Honda initiated safety recall campaign 13V-412, following Honda's investigation in connection with NHTSA's EA 12-001 into vehicles

with certain SRS electronic control units (ECUs) from TRW Automotive. Recall 13V-412 covered certain 2003-2004 model year Honda Odyssey and 2003 model year Acura MDX vehicles and was initiated after Honda determined that for those vehicles there may be variation in the ASIC chip within the SRS ECU causing some to have low toughness against electrical noise surges. If the vehicle produces high levels of electrical noise through normal operation, the ASIC in the SRS ECU could become damaged and result in an airbag deployment signal being issued without a crash. See Recall Notification to NHTSA dated September 18, 2013.

During its investigation into the SRS ECU condition, Honda became aware of three particular instances of inadvertent deployment in which the airbag inflator also ruptured. Two of the incidents involved 2003 Honda Odysseys; one occurred on March 25, 2013 in Connecticut and one occurred on May 29, 2013 in Texas. (The third incident is described below.) Honda worked with both TRW and Takata to investigate the potential cause of the inadvertent deployment and the inflator rupture. According to the accounts of vehicle occupants, the ruptures occurred significantly after the inadvertent passenger airbag deployment occurred, ranging from several seconds to tens of seconds after initial passenger airbag deployment. This is unlike any other alleged or confirmed airbag rupture incident, to the knowledge of Honda. Takata performed some recreation testing on similar PSPI-L inflators that demonstrated these inflator ruptures were a result of the faulty signal sent by the SRS ECU that caused the inadvertent deployment. Takata's testing showed that an inadvertent deployment signal from the SRS ECU could trigger the primary chamber alone, neglecting to send any deployment signal to the secondary chamber. This imbalanced deployment resulted in the secondary chamber continuing to contain un-combusted propellant. The heat generated by the deployment of the primary

chamber would, over the course of several seconds, propagate to the secondary chamber, eventually igniting the auto-ignition material of the secondary chamber, causing deployment that could yield a rupture, due to the imbalanced deployment of the airbag inflator. See Honda Presentations to NHTSA on September 12, 2013, titled "SRS Electronic Control Unit Malfunction (TRW)" and "Odyssey Airbag Inadvertent Deployment." This condition is referred to as a "sympathetic ignition" or "one-side ignition."

Prior to the Odyssey incidents, on December 7, 2010, a rupture occurred involving a Honda Pilot passenger airbag inflator during an internal demonstration – not during normal operation. The rupture also was the result of sympathetic ignition. In a sympathetic ignition, the primary chamber alone is triggered for ignition but the sequencing for the intended burning of the secondary chamber is disrupted by electrical noise, which causes a pressure build-up that causes the inflator to rupture. See Rupture Event Analysis due to PSPI-L One-Side Ignition in 2003 M Odyssey. Takata subsequently identified the sympathetic ignition in the Honda Pilot as having common characteristics as the TRW ECU rupture events discussed above and thus the Pilot incident was analyzed and tested in conjunction with that issue. A similar "first one-side ignition" rupture also occurred in a 2003 Odyssey during certification testing at Honda's Sayama facility in Japan due to an operating sound.[3]

[3] On August 26, 2002, a 2003 Honda Odyssey experienced an abnormal deployment of the passenger side frontal airbag during a FMVSS 208 crash test. The inflator was a PSPI-L design, which is not used in the US market, with 3110 Propellant. Honda requested that Takata investigate the deployment, which involved a ruptured inflator. Takata completed its investigation by September 24, 2002. After conducting testing, including reproduction and margin testing, Takata determined the cause of the abnormal deployment was weld breakage due to insufficient propellant in the AIM (auto-ignition material) assembly. Takata concluded the condition occurred during module ignition recycling treatment with one-side ignition and insufficient propellant. As a countermeasure, Takata told Honda it would review its manufacturing process to consider changes to prevent a reoccurrence even under these limited conditions.

Testing Related to Driver Airbag Modules[4]

A rupture of a driver's airbag inflator in a 2004 Accord occurred in Saudi Arabia on February 20, 2012. The inflator in this vehicle was not subject to any prior recall. Honda learned of the accident on March 14, 2012, and began collecting healthy field parts from Saudi Arabia vehicles, which Takata then tested and analyzed. See HAM Meeting Agenda Presentation dated 12/17/2012. Takata determined that the rupture occurred due to propellant over-packing, which occurred when an additional propellant wafer was loaded into the inflator during the manufacturing process.

Under normal operation, the manufacturing press that loads the propellant has a height inspection device that should detect and reject an inflator that contains an improper number of batwing wafers, whether too few or too many. See PSDI + PSPI Review Meeting Presentation and HONDA Meeting Agenda dated April 23, 2012. Takata determined that the height inspection device may have variations in friction width and speed. Takata conducted height inspection testing with various friction widths and speeds using one extra propellant wafer in the inflator to recreate the extra propellant installed condition. This recreation testing confirmed that there are possible settings in the height inspection device that could crack the extra propellant and allow an improperly manufactured inflator to pass inspection. The recreation testing resulted in a similar failure mode as the Saudi Arabia field event sample. Takata determined that the Saudi Arabia event occurred due to the combination of extra propellant installation caused by

[4] On November 4, 2001, an incident occurred in which the passenger side airbag with a Programmable Non-Azide Passenger Inflator ("PNAPI") inflator in a 2000 Accord ruptured during a crash. Component inspection and recreation testing was done to evaluate and investigate this incident. Through inspection of the recovered parts, Takata ultimately determined that although there were depressions in the inflator body for spot welds to adhere the filter to it, the filter was not sufficiently welded to the inflator body. As a result, the filter covered the body orifices, which led to increased pressure and the subsequent rupture. This condition resulted in Recall 02V-080, applicable to certain 2000 Honda Accords and Acura TLs.

variations in the height inspection device. Takata indicated that this was a rare event. See PSDI + PSPI Review Meeting Presentation.

On August 6, 2013, Honda received a claim via a NHTSA Hotline complaint of energetic deployment of a 2005 Honda Civic driver's airbag inflator in Florida. On October 22, 2013, Honda and Takata began a joint investigation of the deployment with the manufacturer of the airbag inflator. On January 22, 2014, Honda and Takata provided an interim investigation report to NHTSA ODI and continued investigating potential causes of inflator rupture. See "NHTSA PSDI Inflator Interim Report" dated January 22, 2014.

From January to June of 2014, Honda collected parts and Takata conducted analysis, focusing on the same production lot as the ruptured inflator from the Florida driver's airbag deployment. Most of Takata's testing involved inflators harvested from the North American market, both within and outside the HAH region. Some Takata testing data provided to Honda identified tested units that were within the HAH region or potentially within those regions (i.e., when only part of the state of origin is in the HAH region). Takata measured a number of characteristics of inflators or inflator components. Takata reported tests for helium and air leaks, moisture level, several measurements of propellant wafer density, weld depth, chamber pressure, tank pressure, CT and microCT scanning. See Verification of the Girth welding parts of the recovered PSDI healthy cars dated April 1, 2014; Final Report PSDI Healthy Car Recovery dated May 30, 2014.

In May of 2014, Takata received permission from the customer who experienced the 2005 Honda Civic inflator rupture to conduct material testing and other analysis on the parts retrieved from the vehicle. In June 2014, Honda presented the results of Takata's analysis of the Florida incident to NHTSA. The protocols, objectives, and results of

Takata's testing of the subject inflators and healthy parts are detailed in this report entitled "2005 Civic Driver's Airbag Inflator Energetic Deployment Investigation." This deployment, coupled with other deployments in other manufacturer's vehicles, provided the impetus for the opening of Preliminary Evaluation 14-016 on June 11, 2014 for the purpose of collecting all known facts from Takata and the vehicle manufacturers that have experienced airbag ruptures in the field.

On June 13, 2014, NHTSA contacted Honda to discuss the possibility of conducting safety improvement campaigns to support the ongoing investigation of the cause of the energetic deployments of driver and passenger airbag inflators, focusing on locations in the U.S. that experience high absolute humidity levels and high temperatures. On June 19, 2014, Honda agreed to conduct regional safety improvement campaigns for the driver and passenger airbag inflators for certain model year Honda and Acura vehicles originally sold in or ever registered in geographic regions known for high absolute humidity: Alabama, Florida, Georgia, Hawaii, Louisiana, Mississippi, South Carolina, Texas, Puerto Rico, and the U.S. Virgin Islands. These safety improvement campaigns were not conducted under the Safety Act because Honda had not made a determination that a safety defect existed; however, Honda chose to participate in the collection of parts in order to support the ongoing investigation. The SIC relating to certain driver airbag inflators was subsequently identified as 14V-351. The safety improvement campaign relating to certain passenger airbag inflators was subsequently identified as 14V-353.

On June 26, 2014, Honda learned of an allegation of an energetic deployment of a driver airbag inflator in California. On July 1, 2014, Honda decided to add California to the other geographic locations specified in 14V-351 and 14V-353. These safety improvement campaigns were not conducted under the Safety Act because Honda had not

made a determination that a safety defect existed, however Honda chose to participate in the collection of parts in order to support ongoing investigation. On August 20, 2014, Honda updated the VIN range and total number of potentially affected vehicles for 14V-351 and 14V-353.

On September 9, 2014, Honda confirmed the rupture of the driver airbag module inflator of a 2003 MY Honda City in Sibu, Malaysia, on July 27, 2014. See Abnormal Deployment of Driver Side Airbag dated 10/30/2014. Honda was not notified of this event until late August 2014. See Email correspondence regarding the Malaysia event dated August 26, 2014. Unlike prior incidents, this event involved an SDI inflator – a driver airbag module inflator not installed in vehicles sold in the United States.

Honda collected the driver side SRS inflator for analysis without disassembly. During the course of the investigation, Takata indicated that among Honda inflators produced on conveyor lines at its inflator factories, the humidity control was not proper at some lines. If a line stopped temporarily, the propellants may have been exposed to air and absorbed moisture. Propellants expand as time passes and the combustion area increases, causing the combustion speed increases rapidly. Internal pressure of inflator increases abnormally; then the inflator ruptures.

The ruptured SDI inflator in the Malaysia event was produced at Takata's LaGrange, Georgia factory "Line F." If SDI inflators produced at LaGrange factory "Line F" were retained on the roller conveyor, the propellants were exposed in a humid environment. The average temperature of LaGrange city when the event part was assembled was 9.8℃ and the average humidity was 71%RH. Takata determined that if propellants were exposed under that environment, the absorbed moisture may have been above 0.4wt%. If moisture content of propellants is over 0.4wt%, as the propellant ages,

abnormal combustion is possible, resulting in increased internal pressure. See SRS Technical Explanation dated May 11, 2014.

On October 27, 2014, at the request of Honda and NHTSA, Takata conducted testing of inflators recovered from Florida (inside the HAH region) through recall 13V-132 and the regional safety improvement campaign 14V-353. Takata informed Honda of the results of these tests, including abnormal deployment in a small number of passenger airbag inflators. On October 29, 2014, Honda reported the results of the tests to NHTSA and based on the results of Takata's testing of recovered parts, on November 3, 2014, Honda decided to conduct a safety recall campaign for certain passenger airbag inflators based on the information from Takata. The vehicles being recalled were certain model year Honda and Acura vehicles that were originally sold or ever registered in geographic locations known for high absolute humidity and high temperatures: Alabama, Florida, Georgia, Hawaii, Louisiana, Mississippi, South Carolina, Texas, Puerto Rico, U.S. Virgin Islands, Saipan, Guam, American Samoa. This recall campaign was subsequently identified as 14V-700.

In April of 2014, Takata reported the results of its testing of PSDI-5 inflators to Honda. Healthy parts from 15 vehicles were collected from the North American market and the seal performance and fragment inspection were carried out by Takata. Takata noted that the PSDI-5 is different from the PSDI and PSDI-4. Takata reported no air leaks in the healthy cars, the average density values of each recovered healthy car was appropriate, and the moisture content of the 2004 tablet was very low. On December 1, 2014, Takata presented Honda with its PSDI-5 Healthy Vehicle Recall Final Report. Takata reported that of 32 pieces of healthy vehicle recall product, there was no air leaking product discovered; density reduction was not confirmed; and water content of

2004 tablets was very low. See PSDI-5 Healthy Vehicle Recall Final Report dated December 1, 2014 for the analysis and test results.

The National Safety Improvement Campaign and Honda's continued investigation into airbag rupture

In response to NHTSA's inquiry regarding the existence of any inflator safety defect outside the HAH region, the answer depends upon the inflators at issue.

Honda previously concluded that a potential safety defect existed in inflators of Honda vehicles that were the subject of prior Recalls 08V-593, 09V-259, 10V-041 and 11V-260 involving certain driver frontal airbag inflators. Those recalls were based upon a specific manufacturing defect discussed above involving a deficient process wherein propellant created by the Stokes press experienced low density as a result of imperfect compaction of the propellant. Recalls 13V-132 and 14V-349 were similarly initiated as a result of the discovery of a specific manufacturing defect whereby it was possible for propellant produced during 2001-2002 to be manufactured out of specification without the manufacturing processes correctly identifying and removing the out of specification propellant. Honda believes that the driver airbag inflators or passenger airbag inflators in the vehicles subject to the aforementioned recalls potentially present an unreasonable risk to motor vehicle safety, regardless of their location in the United States.

On June 19, 2014, Honda initiated a SIC for the driver airbag inflator in additional model year Honda and Acura vehicles (Recall 14V-351), and a SIC for passenger airbag inflators in certain model Honda and Acura vehicles (Recall 14V-353). At that time, Honda had not made a determination that a safety defect existed for those inflators. Honda, however, wanted to participate in the collection of parts through the SIC.

In late October 2014 Takata informed Honda that tests of passenger airbag inflators returned from areas of high absolute humidity resulted in abnormal deployments

in a small number of passenger inflators. Consequently, in consultation with Takata and the NHTSA, Honda decided to transition from an investigatory effort to a formal recall of passenger airbag inflators in states and territories which consistently experience high absolute humidity while the investigation continues (Recall 14V-700). The geographic area of this recall is limited because Takata's testing of passenger frontal airbag inflators only uncovered a correlation between long term, consistent exposure to high absolute humidity and abnormal deployments of passenger frontal airbag inflators.[5]

With regard to the model year vehicles included in regional Safety Improvement Campaign SIC 14V-351 and SIC 14V-353/Recall 14V-700 that were not included in prior national campaigns, Honda does not believe that there is sufficient evidence to determine that a safety defect exists in these vehicles outside the HAH region. The basis for Honda's conclusion is recent testing by Takata on both driver's and passenger's frontal airbag inflators removed from vehicles repaired under the SIC.

Tests of passenger airbag inflators returned from vehicles located outside the HAH region have not had results that would support the conclusion that those inflators present an unreasonable risk to motor vehicle safety. Similarly, tests of driver airbag inflators recovered from regional SIC 14V-351 have not resulted in any abnormal deployments. Indeed, Takata recently disclosed in its December 2, 2014 letter to NHTSA that as of November 30, 2014, Takata had tested a total of 1057 inflators, both passenger and driver, from locations outside of the four identified States without a single rupture. The testing has included 665 PSDI and PSDI-4 inflators without rupture regardless of location.

[5] California is not included in the formal recall of passenger airbag inflators because it does not consistently experience high absolute humidity, unlike the states and territories that are covered by the formal recall. Honda voluntarily added California to the SIC after there was a single abnormal deployment of a driver airbag inflator in a vehicle not covered under an existing inflator recall. California was added to investigate the potential causes of a single event.

These findings are consistent with (1) the high concentration of events that have occurred in high absolute humidity and high heat regions of the United States; and (2) the consistent results of testing done over the last seven years indicating that the introduction of moisture into Takata's 2004 Propellant formula could cause the propellant density to decline over time, and such a decline in density could lead to overly energetic combustion during deployment of the airbag.

Nevertheless, because of increasing customer concern about the Takata driver airbag inflators, on December 3, 2014, Honda announced its intention to expand its regional driver airbag inflator SIC to a national SIC.

Current Testing of Inflators

In September of 2014, Takata retained Honda North America, Inc. ("HNA") and Honda R & D Americas, Inc. ("HRA") to conduct computerized tomography (also known as CT scanning) and measuring of recalled airbag inflators manufactured by Takata.

Takata contracted with HNA and HRA to conduct these CT scans because HNA and HRA each own large, industrial state of the art CT scanning machines designed to image automotive componentry. HNA/HRA has a license to analyze the CT scans using a software program called VG Studio MAX 2.2 made by Volume Graphics from Germany. (The cost of the software license was approximately $33,000 USD.) HNA/HRA's version of this software has a Coordinate Measuring Machine ("CMM") module that allows detailed measurements to be taken.

Takata has its own CT scanning machine but it needed to scan and measure approximately 10,000 recalled inflators – a number that exceeded Takata's own imaging capacity. As part of the contract with HNA and HRA, Takata controlled all CT scanning and measuring procedures. At the initiation of the project, Takata even sent HNA and

HRA sample inflators that Takata had previously scanned and measured. HNA and HRA each were required to image and measure the sample inflators to ensure that their machines produced results identical to Takata's.

CT scans created during this imaging process are comprised of two electronic files: a ".vgi" or ".vgl" file, and a ".vol" file. The VG Studio Max software causes the .vgi/.vgl file and the .vol file to work in tandem to produce a three dimensional electronic image of each individual inflator. The image can be manipulated in a virtual three dimensional space. The CT scan also allows a viewer to see numerous cross sections of the inflator.

HNA and HRA's process for the Takata project is as follows: (1) the technician removes the inflator from the box Takata sent; (2) the technician scans the inflator's barcode (the inflator's serial number) which electronically creates filenames for the ".vgi/.vgl" and ".vol" files (i.e., their filenames match the serial number); (3) the technician places the inflator into the machine and starts the scanning process; (4) the machine scans each inflator by taking an x-ray and then rotating the inflator slightly less than one-quarter (¼) of a degree before taking the next x-ray, which is repeated until the inflator has been rotated 360 degrees; (5) the machine exports 1513 individual images created during the scanning process to a computer; (6) a technician loads the 1513 images into "CT Pro software," which processes the images and creates the .vgi/.vgl and .vol files (a process that is also known as "reconstruction"); (7) the .vgi and .vol files are loaded into VG Studio Max 2.2 software; (8) the technician processes the CT scan in VG Studio Max 2.2 so that accurate measurements can be taken; and (9) the technician measures the wafers/batwings of the subject inflator in VG Studio Max 2.2. Steps 7-9 are the analytic

steps where measurements are taken and data is generated and captured in a report for Takata.

Due to the differences in the size and shape of driver ("PSDI" and "PSDI-4") and passenger ("PSPI") airbag inflators, as well as their constituent formed propellant (batwings for driver airbag inflators and wafers for passenger airbag inflators), the process generates different measurements of the propellant batwing/wafers for each device. The technician takes five measurements of each PSDI or PSDI-4 batwing – the height, the width, the center thickness, the right side thickness, and the left side thickness. Only one measurement of each PSPI wafer is taken – the diameter at the widest point. Because each inflator contains 10 batwings or wafer, this results in 50 measurements of each driver side inflator and 10 measurements of each passenger side inflator.

After completing the measurements, the technician creates a report for each PDSI-4, PDSI, and PSPI inflator. The report electronically compares the batwing/wafer measurements to Takata's pre-set measurement values and color-codes the results as green, yellow or red. Once the report is complete, the technician saves the CT scan images to a folder bearing the serial number of the scanned part to be sent to Takata. The technician places the scanned inflator in the same box it came in from Takata. S/he seals the box and places it in the area designated for completed inflators being shipped back to Takata. The technician then begins the scanning process for the next inflator.

For both passenger side and driver side inflators, the scanning process takes approximately 10 minutes and reconstruction takes 10 minutes. "Analysis" for PSDI-4 and PSDI inflators takes approximately 45-50 minutes and approximately 10 minutes for PSPI inflators.

The contract and work being completed is ongoing and will continue for some additional time. As of December 1, 2014, HNA has fully scanned and analyzed 1,069 inflators: 274 Honda passenger side inflators, 531 Toyota passenger side inflators, and 264 Honda driver side inflators. As of December 1, 2014, HRA has fully scanned and analyzed 640 inflators: 434 Toyota passenger side inflators, 170 Honda passenger side inflators, and 36 Honda driver side inflators.

Decision-Making

All decisions regarding the initiation, type, and scope of field actions by Honda are determined by Honda Motor Co., Ltd.'s Global Quality Committee (GQC f/k/a JQC). For potential North American market actions, the GQC considers recommendations from the North American Steering Committee (NASC) , and then determines the ultimate course of action for the company both in the United States and abroad.

In response to Subparagraph (f), Honda provides the following listing of managers and supervisors primarily involved in Honda's investigation and decision-making process concerning rupturing airbag inflators manufactured by Takata. Honda has segregated the listings between those supervisors and managers involved in Honda's investigation process, and those involved in Honda's decision-making process as they relate to rupturing airbag inflators manufactured by Takata.

All individuals listed below may be contacted through Honda's counsel of record, Mayer Brown LLP, c/o Erika Jones.

Managers and Supervisors Primarily Involved in Honda's Investigation Process		
Name	Division	Title
[redacted]		
	Honda North America – Market Quality	Staff Engineer

[redacted]	Honda North America – Market Quality	Staff Engineer
	Honda North America – Market Quality	Engineering Coordinator
	American Honda Motor Co., Inc., Product Regulatory Office	Assistant Vice President
	Honda R&D Co., Ltd.	Executive Chief Engineer
	Honda North America – Market Quality	Engineering Coordinator
	Honda R&D Co., Ltd.	Chief Engineer
	Honda of America Manufacturing, Inc.	Associate Chief Engineer
	American Honda Motor Co., Inc., Parts, Service & Technical Division	Sr. Engineer/Technologies
	American Honda Motor Co., Inc., Environmental Business Development Office	Advisor/Environmental Business Development Office
	American Honda Motor Co., Inc., Product Regulatory Office	Manager

Managers and Supervisors Involved in Honda's Decision-Making Process (NASC)		
Name	Division	Title
[redacted]	Honda Canada Inc.	Senior Manager/Service
	American Honda Motor Co., Inc., Parts, Service & Technical Division	Vice President
	American Honda Motor – SPPC	Manager – Quality Assurance/SPPC
	American Honda Motor Co., Inc., Parts, Service & Technical Division	Senior Vice Present

[redacted]	American Honda Motor Co., Inc., Parts, Service & Technical Division	Sr. Engineer/Technologies
	Honda North America	
	American Honda Motor Co., Inc., Parts, Service & Technical Division	Vice President
	American Honda Motor Co., Inc., Parts, Service & Technical Division	Manager – Auto Technologies Operations
	Honda R&D Americas, Inc.	Division Director/Technical Evaluation
	American Honda Motor Co., Inc., Product Regulatory Office	Vice President
	American Honda Motor Co., Inc.,Environmental Business Development Office	Advisor/Environmental Business Development Office

Managers and Supervisors Involved in Honda's Decision-Making Process (GQC)		
Name	Division	Title
[redacted]	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Chief Inspection Engineer
	Honda R&D Co., Ltd.	Executive Vice President
	Honda Motor Corporation	Chief Inspection Engineer
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda R&D Co., Ltd.	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Product Engineering Strategic Chief
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda R&D Co., Ltd.	Chairman of Technical

[redacted]		Evaluation Committee
	Honda Motor Corporation	General Manager
	Honda R&D Co., Ltd.	Chairman of Technical Evaluation Committee
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Production Engineering Strategic Chief
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Chief Inspection Engineer
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	SSE
	Honda Motor Corporation	Assistant Chief Inspection Engineer
	Honda Motor Corporation	General Manager
	Honda R&D Co., Ltd.	Chairman of Technical Evaluation Committee
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	General Manager
	Honda Motor Corporation	Manager

In response to Subparagraph (g), Honda responds as follows:

In preparing its responses to this General Order, Honda was assisted by inside and outside counsel, who conducted interviews of numerous Honda employees in an effort to obtain and identify relevant information and responsive documents.

ADDITIONAL STATEMENTS

Honda is not providing privileged documents that may be responsive to this General Order. These include (a) communications between outside counsel and employees of Honda's Law Department, other Honda employees, or employees of parties represented by Honda in litigation or claims; (b) communications between employees of Honda's Law Department and other Honda employees or employees of parties represented by Honda in litigation or claims; (c) notes and other work product of outside counsel or employees of Honda's Law Department, including work product of employees or consultants done for or at the request of outside counsel or Honda's Law Department. Honda is not claiming a legal privilege for any documents provided with this response; however, Honda 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, Honda 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, Honda has identified numerous documents in the Japanese language. Consistent with the instructions in the General Order, Honda is arranging for translations of each such document into English. For those documents that have not yet been translated, but that have been identified as responsive due to connected family documents, the original foreign-language document will be included in this Response. However, Honda will supplement this response with the Japanese documents and the English translations when those have been completed. As is the case with all the

Requests herein, Honda's efforts to identify responsive documents in both the United States and Japan remain ongoing.

Although Honda is responding to all of the requests posed by the agency and has endeavored to identify and provide all responsive documents (efforts which are ongoing), Honda is objecting to certain of the definitions, instructions and requests contained in the General Order:

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

Honda objects to the definition of "You" and "Your" to the extent it purports to include outside counsel. It would be unduly burdensome to require Honda 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 Honda. 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, Honda has not asked its outside counsel to search for responsive documents.

Honda 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.