

**UNITED STATES DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**
1200 New Jersey Avenue SE
Washington, D.C. 20590

In re:)
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EA15-001)
Air Bag Inflator Rupture)
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)
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AMENDMENT TO NOVEMBER 3, 2015 CONSENT ORDER

This Amendment to the November 3, 2015 Consent Order (the “Amendment”) is issued pursuant to the authority of the National Highway Traffic Safety Administration (“NHTSA”), an operating administration of the U.S. Department of Transportation, to resolve issues raised in the above-captioned investigation, to mitigate and control risks of harm, and to promote public safety. This Amendment is entered by the parties under Paragraph 49 of the November 3, 2015 Consent Order between NHTSA and TK Holdings Inc. (“Takata”), for the purpose of amending the terms of that Consent Order. This Amendment sets forth additional requirements and performance obligations of Takata in connection with its prior agreement to initiate recalls relating to air bag inflators in which confirmed field or testing ruptures have occurred and to fulfill the requirements of the National Traffic and Motor Vehicle Safety Act of 1966, as amended and recodified (the “Safety Act”), 49 U.S.C. § 30101, *et seq.*, and applicable regulations thereunder.

Unless otherwise expressly modified herein, the terms and conditions of the May 18, 2015 and November 3, 2015 Consent Orders, issued by NHTSA in this matter and agreed to by Takata, remain in full force and effect.

I. FINDINGS AND BASIS FOR AMENDMENT

1. Three independent research organizations have undertaken scientific evaluations of non-desiccated frontal Takata air bag inflators, containing a phase-stabilized ammonium nitrate-based propellant (“PSAN”) (collectively, the “non-desiccated frontal Takata PSAN inflators”), that may rupture during air bag deployment (the “third-party evaluations”). *See* Expert Report of Harold R. Blomquist, Ph.D. at ¶¶ 13-15 (attached hereto as Exhibit A). Such ruptures have, in some instances, resulted in death or serious injury to vehicle occupants.¹

2. NHTSA has been briefed on the third-party evaluations and the conclusions drawn by the three research organizations regarding root cause. The findings of all three research organizations are consistent with previous theories that most of the inflator ruptures are associated with a long-term phenomenon of PSAN propellant degradation caused by years of exposure to temperature fluctuations and intrusion of moisture present in the ambient atmosphere.² *See* Exhibit A at ¶ 17. The temperature fluctuations and moisture intrusion are more severe in warmer climates with high absolute humidity. *See* Exhibit A at ¶ 18.a.

3. The Agency has reviewed determinations experts have made regarding the rate of climate-induced propellant degradation in non-desiccated frontal Takata PSAN inflators – *i.e.*, the amount of time and exposure to heat cycling and humidity before the inflator propellant may show signs of degradation associated with the risk of rupture. *See* Exhibit A at ¶¶ 28-29.

4. In consultation with its expert, Harold R. Blomquist, Ph.D., the Agency has thoroughly reviewed the work of these three research organizations, as well as the results of ballistic testing and other testing and analysis to predict the service life of PSAN inflators

¹ No field ruptures have yet been reported involving those non-desiccated frontal PSAN inflators not already subject to recalls in the U.S.

² A limited number of the Takata inflator ruptures have been due to identified manufacturing issues, rather than the propellant degradation process analyzed and identified in the third-party evaluations.

conducted by Takata. *See* Exhibit A. Most of the expert analysis has focused on non-desiccated passenger Takata PSAN inflators.

5. Based upon this review, the Agency has concluded that the likely root cause of the rupturing of most non-desiccated frontal Takata air bag inflators is a function of time, temperature cycling, and environmental moisture.

6. The purpose of the present amendment is to address the potential for safety risks to develop in non-desiccated frontal Takata PSAN inflators that have not previously been subject to recalls in the United States. The Agency has concluded that the rate at which propellant degradation may occur in non-desiccated frontal Takata air bag inflators varies based upon geographic factors of environmental heat and humidity. Based upon its own testing and analysis, Takata further believes that the potential for propellant degradation and the expected rate of degradation will also vary considerably depending on the type of inflator at issue and the specific vehicle makes and models in which the inflators are installed. The safety and service life of the non-desiccated frontal Takata PSAN inflators may also be affected by manufacturing variability.³

7. Considering the critical factors of temperature and absolute humidity, the United States can generally be divided into the following three zones:

a. Zone A comprises the states and U.S. territories with the greatest temperature cycling and absolute humidity. These are the states and territories previously

³ There are several makes and models of vehicles equipped with non-desiccated frontal Takata PSAN inflators in which to date there have been no reported inflator ruptures associated with long-term degradation of PSAN propellant.

identified as the high absolute humidity (“HAH”) region⁴ plus the states of California and South Carolina.

b. Zone B comprises states with moderate temperature cycling and absolute humidity. It includes the following states: Arizona, Arkansas, Delaware, District of Columbia, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia, and West Virginia.

c. Zone C comprises states with lower temperature cycling and absolute humidity. It includes the following states: Alaska, Colorado, Connecticut, Idaho, Iowa, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New York, North Dakota, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin, and Wyoming.

8. As a general matter, the expert testing and analysis indicate that the service life expectancies of non-desiccated frontal Takata PSAN inflators will vary in each of the three geographic zones described above. Based on this analysis, NHTSA estimates that the service life expectancies of these inflators range from 6 to 25 years, depending on environmental exposure, among other factors. *See Exhibit A at ¶ 32.* The Agency has concluded that these non-desiccated frontal Takata PSAN air bag inflators do not pose an unreasonable risk to safety under the Safety Act until they reach a certain level of propellant degradation.

9. The Agency’s assessments regarding root cause and rates of propellant degradation are supported by the opinions in Dr. Blomquist’s report. *See Exhibit A.*

⁴ The previously defined HAH region includes the following states and territories: Alabama, Florida, Georgia, Hawaii, Louisiana, Mississippi, Texas, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands (Saipan), and the U.S. Virgin Islands. *See Coordinated Remedy Order at ¶ 38 n.8 (Nov. 3, 2015).*

10. NHTSA understands that the three research organizations have begun to investigate the safety and service life of *desiccated* Takata air bag inflators that contain a phase-stabilized ammonium nitrate-based propellant (the “desiccated Takata PSAN inflators”).⁵

II. LEGAL AUTHORITY

11. NHTSA issues this Amendment pursuant to its authority under the Safety Act, 49 U.S.C. § 30101, *et seq.*, as delegated by the Secretary of Transportation, 49 C.F.R. § 1.95, including, but not limited to, its authority to inspect and investigate, 49 U.S.C. § 30166(b)(1); compromise the amount of civil penalties, 49 U.S.C. § 30165(b); ensure that defective vehicles and equipment are recalled, 49 U.S.C. §§ 30118-30119; ensure the adequacy of recalls, 49 U.S.C. § 30120(c)(1); accelerate remedy programs, 49 U.S.C. § 30120(c)(3); and require any person to file reports or answers to specific questions, 49 U.S.C. § 30166(g). It is AGREED by Takata and ORDERED by NHTSA as follows:

III. DEFECT INFORMATION REPORT SCHEDULE

12. In light of the Agency’s findings, set forth in Paragraphs 2 through 10 above, NHTSA has concluded that at some point in the future all non-desiccated frontal Takata PSAN inflators will reach a threshold level of degradation that could result in the inflator becoming unreasonably dangerous.

13. As described above, NHTSA has concluded that the data and root cause explanations presented to the Agency by the three research organizations, and verified by NHTSA’s independent expert, provide a determination of root cause by “credible source[s]” under Paragraph 29(d) of the November 3, 2015 Consent Order. The Agency therefore invokes its authority under Paragraph 29, and orders Takata to file certain Defect Information Reports

⁵ To date, there have been no test failures or field ruptures of desiccated Takata PSAN inflators, with the exception of two ruptures of desiccated side impact Takata PSAN inflators (*i.e.*, SSI-20), which were caused by an identified manufacturing issue.

(DIRs) to address the potential for future safety issues that may arise specifically from environmental exposure of vehicles in the United States. Subject to the terms of this amendment, Takata will not object to the issuance of this order and will comply with the terms contained herein.

14. To mitigate and control the risk of serious injury or death due to an air bag inflator rupture, and in light of the significant population of vehicles containing non-desiccated frontal Takata PSAN inflators not yet under recall, as well as the Agency's conclusions regarding root cause and the length of time required for the propellant to degrade to the point where the inflator may become unreasonably dangerous, the Agency concludes there is a reasonable and appropriate basis to require Takata to submit DIRs on a rolling basis, as set forth in the following schedule:

DIR Dates	Zone A Population	Zone B Population	Zone C Population
May 16, 2016	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2011 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2008 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2004 & older
December 31, 2016	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2012 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2009 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2008 & older
December 31, 2017	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2013 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2010 & older	All vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators - MY 2009 & older
December 31, 2018	All remaining vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators	All remaining vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators	All remaining vehicles not currently under recall containing non-desiccated frontal Takata PSAN inflators
December 31, 2019	All like for like non-desiccated frontal Takata PSAN replacement parts	All like for like non-desiccated frontal Takata PSAN replacement parts	All like for like non-desiccated frontal Takata PSAN replacement parts

15. The length of time required for the propellant to degrade to the point where the inflator may become unreasonably dangerous and therefore defective is, in some cases (especially for Zone C), understood to be quite long, and not all non-desiccated frontal Takata PSAN inflators will have reached the point where they pose an unreasonable risk to safety before December 31, 2019. Nevertheless, out of an abundance of caution, and in light of the significant challenges the automotive industry faces in remedy completion efforts as vehicles age, the

Agency has concluded that all vehicles containing non-desiccated frontal Takata PSAN inflators should be under recall by December 31, 2019.

16. The filing of DIRs by Takata will trigger the vehicle manufacturers' obligations to file DIRs and conduct recalls under 49 C.F.R. Part 573, and as set forth in Paragraph 46 of the November 3, 2015 Coordinated Remedy Order. In accordance with Paragraph 45 of that Coordinated Remedy Order, the vehicles covered by such DIRs will become part of the Coordinated Remedy Program, and the remedy of such vehicles will be completed in accordance with priority schedules established through the Coordinated Remedy Program. In prioritizing the remedy for vehicles subject to the recalls described in Paragraph 14, the Coordinated Remedy Program will consider the estimated service lives of the inflators at issue and variations in service life demonstrated among different vehicle makes and models.

17. Based on the presentation of additional test data, analysis, or other relevant and appropriate evidence, by Takata, an automobile manufacturer, or any other credible source, NHTSA may, after consultation with Takata, alter the schedule set forth in Paragraph 14 to modify or amend a DIR or to defer certain inflator types or vehicles, or a portion thereof, to a later DIR filing date. Any such evidence must be submitted to NHTSA no later than one-hundred-twenty (120) days before the relevant DIR filing date. This paragraph applies only to the DIRs scheduled to be issued on or after December 31, 2016 under the schedule established by Paragraph 14 of this Amendment.

18. NHTSA reserves the right to accelerate or otherwise revise the deadlines in Paragraph 14 above, if NHTSA determines such alteration is necessary to mitigate an unreasonable risk to safety within the meaning of the Safety Act, based on the occurrence of future field ruptures, testing, or other changed facts or circumstances. Takata also reserves its

right to present further evidence to NHTSA related to the schedule of DIRs set forth in Paragraph 14 above.

IV. TESTING

19. Paragraph 27 of the November 3, 2015 Consent Order is hereby amended to relieve Takata from its obligation to continue testing of non-desiccated frontal Takata PSAN inflators, except as may be specifically requested by NHTSA on an ad hoc basis. Takata shall continue its efforts to test non-desiccated side inflators.

20. As soon as possible, Takata shall shift its testing focus to desiccated Takata PSAN inflators in accordance with Paragraph 28 of the November 3, 2015 Consent Order. To that end, Takata shall provide a testing plan to NHTSA no later than sixty days from the date of this Amendment.

V. MISCELLANEOUS

21. For purposes of clarity, Paragraph 42 of the November 3, 2015 Consent Order is hereby amended as follows:

42. Reports to NHTSA.

(a) The Monitor shall keep records of his activities, including copies of all correspondence and telephone logs, as well as records relating to actions taken in response to correspondence or telephone calls. If potentially illegal or unethical conduct is reported to the Monitor, the Monitor may, at his option, conduct an investigation, and/or refer the matter to NHTSA and/or the U.S. Department of Justice.

(b) The Monitor may report to NHTSA whenever requested or appropriate but, in any event, shall file written reports not less often than every

four months regarding: the Monitor's activities; whether Takata is complying with the terms of the Consent Orders dated May 18, 2015 and November 3, 2015, this Amendment, and any other amendments thereto; any changes that are necessary to foster Takata's compliance with the Safety Act and/or any regulation promulgated thereunder; and any developments associated with the Coordinated Remedy Program, potentially including vehicle recall prioritization and availability of replacement parts. Sixty days prior to the scheduled expiration of his term, the Monitor shall submit a closing report to NHTSA assessing Takata's record of compliance with the requirements of the Consent Order.

(c) The reports from the Monitor to NHTSA under subpart (b) will likely include proprietary, financial, confidential, and competitive business information. Public disclosure of these reports could discourage cooperation, or impede pending or potential agency investigations, the Coordinated Remedy Program, and/or other agency decision-making, thereby undermining the objectives of the monitorship. For these reasons, among others, the reports and contents thereof are intended to remain and shall remain non-public, except, and to the extent: (i) NHTSA determines that disclosure would be appropriate in furtherance of the discharge of its duties and responsibilities, following consultation with third parties as required under existing laws; (ii) otherwise agreed to by the parties in writing; or (iii) otherwise required by law.

APPROVED AND SO ORDERED:

NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION,
U.S. DEPARTMENT OF TRANSPORTATION

Dated: May 4, 2016

By: // ORIGINAL SIGNED BY //

Mark R. Rosekind, Ph.D.
Administrator

Dated: May 4, 2016

By:

Paul A. Hemmersbaugh
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Dated: May 4, 2016

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AGREED:

TK HOLDINGS INC.

Dated: May 3, 2016

By: 

Kevin M. Kennedy
President

Dated: May 3, 2016

By: 

Eric J. Laptook
General Counsel, Chief Safety Officer &
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Dated: May , 2016

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Andrew J. Levander
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Dated: May __, 2016

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Kevin M. Kennedy
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