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[1] The final rule fulfilled the mandate of the “Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU),” which was signed by President George W. Bush in August 2005. Evidently aware of the agency’s then-pending notice of proposed rulemaking to upgrade FMVSS No. 214, Section 10302 of the Act directed the agency “to complete a rulemaking proceeding under chapter 301 of title 49, United States Code, to establish a standard designed to enhance occupant protection, in all seating positions, in side impact crashes.”

[2] These different side air bag systems are described in a glossary in Appendix A to the September 11, 2007 final rule (72 FR at 51054).

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<table>
<thead>
<tr>
<th>Subsector or industry code</th>
<th>Exceptions and/or limitations</th>
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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Parts 571 and 585

[Docket No. NHTSA–2008–0104]

RIN 2127–AK27

Federal Motor Vehicle Safety Standards; Occupant Protection in Interior Impact; Side Impact Protection; Side Impact Phase-In Reporting Requirements

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Final rule; response to petitions for reconsideration.

SUMMARY: This document responds to petitions for reconsideration of a September 11, 2007 final rule that substantially upgraded Federal Motor Vehicle Safety Standard (FMVSS) No. 214, “Side Impact Protection,” by incorporating a vehicle-to-pole test into the standard, adopting technically-advanced test dummies and enhanced injury criteria, and incorporating the advanced dummies into the standard’s moving deformable barrier test. To respond to petitioners’ concerns about lead time as quickly as possible, the agency is publishing its response to the petitions in parts. Today’s document addresses lead time issues, and other matters that need to be resolved or clarified concerning lead time and the phasing-in of the new requirements. A second document will be published subsequently that addresses the other issues raised by the petitions.

DATES: Effective date: August 8, 2008. If you wish to petition for reconsideration of this rule, your petition must be received by July 24, 2008.

ADDRESSES: If you wish to petition for reconsideration of this rule, you should refer in your petition to the docket number of this document and submit your petition to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., West Building, Washington, DC 20590.

The petition will be placed in the docket. Anyone is able to search the electronic form of all documents received into any of our docket by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78).


SUPPLEMENTAL INFORMATION:

I. Background

On September 11, 2007, NHTSA published a final rule that substantially upgraded Federal Motor Vehicle Safety Standard (FMVSS) No. 214, “Side impact protection.” (72 FR 51908, Docket No. NHTSA–2008–0104). Until the final rule, FMVSS No. 214 provided only thoracic and pelvic protection in a test using a moving deformable barrier (MDB) to simulate an intersection collision with one vehicle being struck in the side by another vehicle. NHTSA upgraded FMVSS No. 214 to require all light vehicles with a gross vehicle weight rating (GVWR) of 4,536 kg or less (10,000 lb. or less) to protect front seat occupants in a vehicle-to-pole test simulating a vehicle crashing sideways into narrow fixed objects, such as utility poles and trees. By doing so it required vehicle manufacturers to assure head and improved chest protection in side crashes for a wide range of occupant sizes and over a broad range of seating positions. It ensured the installation of new technologies, such as side curtain air bags and torso side air bags, which are capable of improving head and thorax protection to occupants of

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[1] Earning Credits for Early Compliance
[3] Definition of Limited Line Manufacturer

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[3] Definition of Limited Line Manufacturer
vehicles that crash into poles and trees or of vehicles that are laterally struck by a higher-riding vehicle. The side air bag systems installed to meet the requirements of the final rule also reduce fatalities and injuries caused by partial ejections through side windows.

Under the September 11, 2007 final rule, vehicles will be tested with two new, scientifically advanced test dummies representing a range of occupants from mid-size males to small females. A test dummy known as the ES–2re represents mid-size adult male occupants. The ES–2re has improved biofidelity and enhanced injury assessment capability compared to all other mid-size adult male dummies used today. A test dummy known as the SID–IIs, the size of a 5th percentile adult female, represents smaller stature occupants. This dummy better represents occupants 5 feet 4 inches (163 cm) or less, which crash data indicates comprise 34 percent of all serious and fatal injuries to near-side occupants in side impacts.3

The September 11, 2007 final rule also enhanced FMVSS No. 214’s MDB test by specifying the use of the ES–2re dummy in the front seat and the SID–IIs dummy in the rear seating position. Through use of both test dummies, vehicles must provide head, enhanced thoracic and pelvic protection to occupants ranging from mid-size males to small occupants in vehicle-to-vehicle side crashes.

After reviewing the comments to the notice of proposed rulemaking (NPRM)4 preceding the final rule, the results of the agency’s FMVSS No. 214 fleet testing program and manufacturers’ production plans which showed installation of side air bags in vehicles ahead of the schedule proposed in the NPRM, the September 11, 2007 final rule adopted a two-year lead time prior to the beginning of the phased-in pole test requirements. We provided for a four-year phase-in period, made allowance for use of advanced credits towards meeting the new requirements, and made other adjustments to the schedule for heavier vehicles, to enhance the practicability of meeting the new requirements and provide additional flexibility to manufacturers to meet the requirements. We also adopted a phase-in for the MDB test and aligned the phase-in schedule with the oblique pole test requirements, providing also for the use of advance credits.

II. Petitions for Reconsideration

The agency received petitions for reconsideration of the September 11, 2007 final rule from: the Alliance of Automobile Manufacturers (Alliance),5 General Motors North America (GM), Toyota Motor North America, Inc. (Toyota), American Honda Motor Co., Inc. (Honda), Nissan North America, Inc. (Nissan), Porsche Cars North America, Inc. (Porsche), the National Truck Equipment Association (NTEA), and Robert Bosch LLC (Bosch). The issues raised by the petitioners are summarized below.

a. Alliance

The Alliance stated that it supports the goal of improving side impact occupant protection beyond that already accomplished and generally supports the changes to FMVSS No. 214. The Alliance petitioned for agency reconsideration of the following issues:6

1. Lead time. The final rule specifies that manufacturers must begin meeting the upgraded pole and MDB test requirements on a phased-in schedule beginning September 1, 2009. The petitioner asked NHTSA to begin the start of the phase-in on September 1, 2011.

2. Lower bound on speed range for the pole test. The final rule specifies that vehicles must meet the requirements of the pole test when tested at any speed up to and including 32 km/h (20 mph). The petitioner asked that the pole test speed be specified as 26 to 32 kilometers per hour (km/h) (16 to 20 miles per hour) (mph).

3. Clarification of phase-in requirements. The final rule adopted a phased-in compliance schedule for the MDB test, aligned the phase-in schedule with the oblique pole test, and provided for the use of advance credits to meet the MDB requirements. The Alliance asked us to clarify that for each production year, the agency meant to have separate, concurrent phase-in requirements for the MDB and pole tests.

4. Convertibles. The final rule applied the pole test requirements to convertible vehicles after the agency had made a determination that it was practicable for the vehicles to meet the requirements. The Alliance petitioned the agency to allow convertible vehicles to follow the lead time requirements applicable to vehicles with a GVWR between 8,500 and 10,000 pounds, i.e., 100 percent of vehicles manufactured on or after September 1 of the fifth production year after the start of the phase-in.

5. SID–IIs pelvic criterion. The final rule adopted a pelvic force injury assessment reference value of 5,525 Newtons (N) for the SID–IIs small female dummy. The petitioner asked that this value be changed to 8,550 N.

6. Rear seat dummy arm positioning in the MDB test. The final rule specifies that the SID–IIs dummy in the rear seat of the vehicle has its upper arm in the down position. The petitioner asked that the arm be set in the detent representing a 45 degree angle between the torso and the arm.

7. Multi-stage and altered vehicles, including vehicles with partitions. The petitioner recommended that NHTSA “exempt” multi-stage/altered vehicles (including vehicles with partitions behind the front seats) from the oblique pole test requirements.

8. FMVSS No. 301 dummy application. The petitioner asked that the wording of FMVSS No. 301, “Fuel system integrity,” be revised to specify that the agency will conduct the side crash test of that standard using whichever dummies the manufacturer has used to certify the vehicle to FMVSS No. 214.

9. Corrections of test procedures and typographical errors. The petitioner cited omissions or errors in the regulatory text in need of correction.

b. General Motors (GM)

GM, an Alliance member, expressed support for the Alliance’s petition and elaborated on its concern about the lack of a lower bound for the speed of the pole test. The petitioner stated that attempts to comply with the “up to” 32 km/h (20 mph) test speed will require vehicles to sacrifice significant immunity from unwanted deployments which will increase the frequency of unnecessary air bag deployments. GM petitioned NHTSA to either bound the pole test speed at a lower speed of 26 km/h (16 mph) or 23 km/h (14.3 mph), or delay implementation of the “up to” aspect of the requirement until the end of the phase-in to allow for additional sensing technology development.

c. Toyota

Toyota, an Alliance member, expressed support for the Alliance’s petition and elaborated on its concern about lead time and the pole impact test speed of “up to” 32 km/h (20 mph). Toyota requested that the phase-in be
effective from September 1, 2011. The petitioner noted that though side air bags have advanced in the years since NHTSA’s NPRM, they are only one portion of the system and their deployment depends heavily on the capability of the sensors. The petitioner stated that the typical side air bag sensor is a deceleration sensor, or G sensor. Toyota said that the state of technology for G sensors, while highly advanced, is limited by deployment “gray zones” that denote the measurement tolerance of the sensor. The petitioner noted that real-world evidence of inadvertent deployments exist. In late 2006, the 2005-late 2006 model year Scion tC vehicles were recalled when complaints were received of inadvertent deployment of the side air bag when the door was slammed. It noted there have been other investigations by NHTSA into complaints for other manufacturers’ vehicles as well. Toyota recommended that NHTSA require 26 km/h as the lowest limit of impact velocity in the pole test, since bounding the lower impact velocity in that way would make it possible to distinguish the G sensor output necessary for side air bag deployment from the output characteristic of a door slam or minor impact event.

d. Honda

Honda supported the upgraded FMVSS No. 214 and sought correction and clarification with respect to referenced materials and test procedures, such as making FMVSS No. 214 consistent with cross-references to the test dummy used in the FMVSS No. 301 and 305 crash tests, providing for adjustment of telescopically steering columns, and clarifying adjustment of seat belt shoulder anchorages.

e. Nissan

Nissan requested additional lead time before the start of the phase-in period. The petitioner stated that the upgraded FMVSS No. 214 requirements will necessitate a redesign of the side impact air bag system, and that the pending rulemaking activity in the area of ejection mitigation raises concerns that a near-term rulemaking on ejection mitigation will put significant additional strain on Nissan’s engineering resources and increase costs of compliance for both regulations.7 The petitioner requested that NHTSA begin phasing-in the requirements on September 1, 2010. Further, the petitioner requested that we delay the effective date for convertible vehicles until a year after completion of the phase-in for other vehicle types, i.e., under the schedule of the September 11, 2007 final rule, until September 1, 2014.

f. Porsche

Porsche, an Alliance member, expressed support for the Alliance’s petition and elaborated on its concern about lead time, the rear seat dummy arm position, and the pole impact test speed. The petitioner stated that two years of lead time is inadequate because the final rule imposes new crash test requirements, incorporates new test dummies with unresolved issues and new injury criteria, and “compliance with all of the requirements, plus adequate compliance margins, has not been demonstrated by NHTSA.”

g. Volkswagen (VW)

VW, an Alliance member, expressed support for the Alliance’s petition and elaborated on its belief that convertible models should be excluded from the pole test due to practicability issues.

h. National Truck Equipment Association (NTEA)

NTEA requested that NHTSA “exempt multi-stage produced vehicles such as specialized work trucks from the new requirements of this regulation.” Alternatively, NTEA requested that NHTSA “consider amending the phased-in effective dates such that the effective date for multi-stage produced vehicles with a gross vehicle weight rating greater than 8,500 lbs is September 1, 2014 (one year later than the effective date for single stage produced vehicles).”

i. Bosch

Bosch stated that it fully supported the pole test but asked that NHTSA “modify the test set-up by optionally allowing information being made available from the Electronic Stability Control [ESC] on the vehicle CAN-bus.” This would allow advanced restraint electronics to achieve the same performance and occupant protection as in real world accidents.” Bosch stated that in the test set-up specified in the final rule, no ESC signals are communicated on the vehicle CAN-bus, since the vehicle is not sliding laterally with wheels moving on the ground. As a result, the petitioner stated, “advanced restraint triggering algorithms cannot utilize any ESC data, resulting in significantly later TTF [time-to-fire] and thus reduced occupant protection.” Bosch believed that certain sensor information should be used to trigger the side curtain air bags and torso side air bags as soon as possible. Bosch recommended that the agency should “directly feed-in the lateral velocity of 20 mph cos (15°),” or feed in “the ESC-data communicated on the CAN-bus during a real lateral pole crash (with 20 mph under 75°)” provided by the original equipment manufacturer.

III. To Which Issues From the Petitions for Reconsideration Does This Rule Respond?

To respond to petitioners’ concerns about lead time as quickly as possible, the agency is publishing its response to the petitions for reconsideration in parts. Today’s document addresses lead time issues, and other matters that need to be resolved or clarified concerning lead time and the phasing-in of the new requirements. A second document will be published subsequently that addresses the other issues raised by the petitioners.

This final rule:
a. Extends the lead time period before manufacturers must begin phasing in vehicles to meet the upgraded FMVSS No. 214 requirements to September 1, 2010 and amends the percentages of manufacturers’ vehicles that are required to meet the new requirements of 20/50/75/all to 20/40/60/80/all;8
b. Specifies the test speed for the pole test as “26 km/h to 32 km/h” (16 mph to 20 mph) until the end of the phase-in, at which time vehicles must meet the requirements of the pole test when tested “at any speed up to and including 32 km/h (20 mph)”;
c. Delays the effective date for convertible vehicles until after completion of the phase-in for other vehicle types, i.e., until September 1, 2015;
d. Delays the effective date for multi-stage vehicles and alters until after completion of the phase-in for all other vehicle types, i.e., until September 1, 2016; and,
e. Corrects the omissions and minor errors found in the regulatory text relating to the earning of credits for early compliance, the SID–II’s dummy arm positioning, the definition of limited line manufacturer, and the reinstatement of the seat adjustment procedure for the SID dummy.

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7 NHTSA has announced that it is developing a proposal for an ejection mitigation containment requirement. (“NHTSA Vehicle Safety Rulemaking Priorities and Supporting Research: 2003–2006.” July 2003, Docket 15505.) Additionally, Sec. 10301 of SAFETEA-LU requires the Secretary to issue by October 1, 2009 an ejection mitigation final rule

8 ‘All’ vehicles must meet the requirements without the use of advance credits.
Each of these issues is discussed below in this preamble.

IV. The Issues To Be Addressed in a Later Document

The issues from the petitions for reconsideration that we will be resolving in a later notice are listed below. We will address requests pertaining to:

a. The SID–IIIs pelvic criterion;

b. Whether vehicles manufactured in more than one stage, particularly with partitions, should be excluded from the pole test;

c. The specification as to which test dummy will be used in FMVSS No. 301 and FMVSS No. 305 crash tests;

d. Bosch's suggestion to optionally allow sensor information to be fed into the restraint triggering algorithms; and,

e. Further correction of typographical and other minor errors in the regulatory text set forth in the September 11, 2007 final rule.

V. Response to Petitions

a. Extension of Lead Time and Phase-In Percentages

The Alliance, GM, Nissan, Porsche and Toyota petitioned the agency to revise the lead time schedule. There was general concern regarding the technical and practical challenges of meeting the new requirements with two years of lead time.

NHTSA specified a two-year lead time in the September 11, 2007 final rule based on an analysis of product plans submitted by seven vehicle manufacturers, whose combined production accounted for approximately 90 percent of all light vehicle sales. The data on planned side air bag installations and projected sales through model year (MY) 2011 indicated that 90 percent of all MY 2010 light vehicles will be equipped with side air bags protecting the head, and 72 percent will be equipped with side air bags protecting the thorax. The percentage of side air bags protecting the head was fairly uniform between the manufacturers. Further, according to test results from the agency's FMVSS No. 214 fleet testing program, we estimated that the majority of currently available head side air bags would meet the head protection requirement of this final rule's pole test (about 80 percent of tested vehicles equipped with head air bags passed the pole test). However, with regard to thorax bags, the product plans indicated there were large differences between manufacturers in the percentage of thorax bags being planned, particularly for light trucks. Also, of the vehicles tested equipped with thorax bags, only 56 percent met the chest requirement in the pole test.

From our FMVSS No. 214 fleet testing program, we believed that side air bags installed in most passenger cars and small and medium size light trucks (including SUVs and minivans) would not need extensive modifications to meet the new FMVSS No. 214 requirements. Instead, we believed that the rule would only result in current side air bags having to be widened and the inflators made more robust, redesigns that we believed could reasonably be made with a two-year lead time and the phase-in percentages of the final rule. We believed that, while some vehicles would need an added sensor at the location of the SID–IIIs 5th percentile female dummy at the full-forward seating position, current sensor technology used today (e.g., to meet the "voluntary commitment" made by auto manufacturers) would generally suffice to enable manufacturers to certify vehicles to the pole test requirements. We believed that extensive vehicle structural modifications were not necessary for passenger cars and small and medium size light trucks to meet the pole test requirements, while it would take longer than two years to add a thorax bag to a vehicle model that has not had one previously (e.g., vehicles with a GVWR greater than 8,500 lb).

Moreover, based on our experience, if structural changes were needed, the modification could be done within three to four years since most vehicle lines would likely experience some level of redesign over the next three to four years. Accordingly, the 75 percent phase-in percentage was adopted to elongate the phase-in schedule one year longer than proposed and to provide vehicle manufacturers the flexibility of a four-year phase-in schedule to incorporate side structure and restraint system modifications into their production cycles for those vehicles needing such changes. The additional phase-in year provided more opportunity to incorporate side impact protection design changes during the course of each manufacturer's normal production cycle.

After considering the information submitted in the petitions for reconsideration, NHTSA has decided to provide an additional year of lead time to the two-year lead time provided in the final rule. The agency's determination of the lead time of the final rule was based in large part on the information from the manufacturer survey, on the conformance dates of the voluntary commitment, and on the results of the FMVSS No. 214 fleet testing program. We assumed, based on the information, that manufacturers would be able to meet the requirements with current sensor designs and configurations, did not need to redesign vehicle interior spacing, or to undertake a substantial door and seat redesign to accommodate the side air bag systems needed to meet the requirements of the pole test. We recognized that the final rule would necessitate changes to the air bag design, inflator characteristics and door trim and roof rail designs, which typically are associated with a three-year lead time for implementation.

However, we assumed that a two-year lead time would be sufficient given our estimate that 90 percent of MY 2010 light vehicles will be equipped with side air bags protecting the head.

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8 Under the phase-in schedule adopted in the final rule, the following percentages of each manufacturer's vehicles were required to meet the new requirements: 20 percent of a "light" vehicle (GVWR less or equal to 3,855 kilograms (kg)[8,500 pounds(lb)]) manufactured during the period from September 1, 2009 to August 31, 2010; 50 percent of light vehicles manufactured during the period from September 1, 2010 to August 31, 2011; 75 percent of light vehicles manufactured during the period from September 1, 2011 to August 31, 2012; 100 percent of light vehicles manufactured on or after September 1, 2012; including limited line and small volume vehicles; 100 percent of vehicles with a GVWR greater than 3,853 kg (8,500 lb) manufactured on or after September 1, 2013 and vehicles produced by alterers and multi-stage manufacturers. Vehicle manufacturers were able to earn credits for meeting the requirements ahead of schedule.

10 On December 4, 2003, the Alliance of Automobile Manufacturers, the Association of International Automobile Manufacturers (AIAM), and the Insurance Institute for Highway Safety (IIHS) announced a new voluntary commitment to enhance occupant protection in front-to-side and front-to-front crashes. The industry initiative consisted of improvements and research made in several phases, focusing, among other things, on accelerating the installation of side impact air bags. See footnote 8 of the September 11, 2007 final rule (72 FR 51910).

11 Under Phase 1 of the voluntary commitment, manufacturers agreed that, not later than September 1, 2007, at least 50 percent of each manufacturer's new passenger car and light truck (GVWR up to 3,855 kg [8,500 lb]) production intended for sale in the U.S. will be designed in accordance with either of the following head protection alternatives: (a) HIC15 performance of 1000 or less for a SID–IIIs 5th percentile female dummy in the driver's seating position in an FMVSS No. 201 pole impact test, or (b) HIC15 performance of 779 or less (with no direct head contact with the barrier) for a SID–IIIs crash dummy in the driver's seating position in an Insurance Institute for Highway Safety (IIHS) MDB perpendicular side impact test. In Phase 2, not later than September 1, 2009, 100 percent of each manufacturer's new passenger car and light truck (GVWR up to 3,855 kg[8,500 lb]) production will be designed in accordance with either of the following: (a) IIHS MDB recommended practice of HIC15 performance of 779 or less for a SID–IIIs crash dummy in the driver's seating position. See Docket NHTSA–2003–14623–13.
presumably in conformance with the voluntary agreement. Information submitted by the petitioners indicates that notwithstanding conformance with the voluntary agreement, new changes will have to be incorporated into vehicles to meet the pole test requirements, including new sensors and wider air bags, as well as changes to interior spacing configurations, door, seat and roof designs. Current side air bag systems conforming to the voluntary commitment will need to be made more robust to meet the FMVSS No. 214 pole test, and that for vehicles that do not meet the pole test, redesigning the vehicle interior to accommodate systems that meet the requirements is a significant undertaking that cannot be accomplished within two years. Data from pole tests we conducted in support of NHTSA’s New Car Assessment Program (NCAP) support this assessment. We tested six vehicles that were in conformance with the voluntary agreement and that had been characterized as “good” performers in the IIHS rating program. Of these, four of the six vehicles did not meet the criteria of the pole test when tested with the SID—II's test dummy: two vehicles need improved head protection, and four vehicles need better pelvic protection. The results of the testing are set forth in Table 1, below.

**Table 1. SID—II's Oblique Pole Tests With Vehicles Rated “Good” by IIHS**

<table>
<thead>
<tr>
<th>NHTSA test No.</th>
<th>Vehicles</th>
<th>Vehicle class</th>
<th>Side air bag type</th>
<th>HIC36</th>
<th>Lower spine (Gs)</th>
<th>Pelvis force (N)</th>
</tr>
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<tbody>
<tr>
<td>V06287</td>
<td>2007 Honda Pilot</td>
<td>SUV</td>
<td>Curtain + Torso</td>
<td>1000</td>
<td>82</td>
<td>5525</td>
</tr>
<tr>
<td>V06283</td>
<td>2007 Nissan Quest</td>
<td>Van</td>
<td>Curtain</td>
<td>3464</td>
<td>68</td>
<td>6649</td>
</tr>
<tr>
<td>V06285</td>
<td>2007 Ford Escape</td>
<td>SUV</td>
<td>Curtain + Torso</td>
<td>5694</td>
<td>79</td>
<td>5786</td>
</tr>
<tr>
<td>V06288</td>
<td>2006 VW Passat</td>
<td>Medium PC</td>
<td>Curtain + Torso</td>
<td>407</td>
<td>65</td>
<td>6515</td>
</tr>
<tr>
<td>V06286</td>
<td>2006 Subaru Impreza</td>
<td>Medium PC</td>
<td>Combo</td>
<td>323</td>
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<td>3778</td>
</tr>
<tr>
<td>V06283</td>
<td>2007 Toyota Avalon</td>
<td>Heavy PC</td>
<td>Curtain + Torso</td>
<td>184</td>
<td>58</td>
<td>4377</td>
</tr>
<tr>
<td></td>
<td>32477 Federal Register</td>
<td>Good</td>
<td>Head Protection</td>
<td>642</td>
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</tr>
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</table>


To provide manufacturers more time to meet the upgraded FMVSS No. 214 requirements, this document extends the lead time period before manufacturers must begin phasing in vehicles to meet the upgraded FMVSS No. 214 requirements to September 1, 2010. Thus, three years of lead time have been provided to account for redesigns to the vehicle interior necessitated by the demands of the pole test. At the same time, we do not believe that more than a total of three years of lead time should be necessary, since interior redesigns typically can be achieved in three years and since we have also extended the phase-in period. To facilitate the installation of side impact air bags and other safety countermeasures to meet the new requirements in light vehicles as quickly as possible, we are providing only one additional year of lead time, but we are adjusting the phase-in schedule of manufacturers’ vehicles that are required to meet the new requirements from 20/50/75/all to 20/40/60/80/all. The adjusted schedule will also continue to couple the phase-in of the MDB with the pole test to enhance the practicability of meeting the new requirements. Moreover, Nissan is correct that the agency’s upcoming rulemaking on ejection mitigation containment requirements will build on the foundations laid by the September 11, 2007 final rule. For the convenience of the reader, the revised compliance schedule is shown in Table A of the Appendix to this preamble.

b. Test Speed

The agency has decided to retain in the long run that the FMVSS No. 214 pole test requirements must be met at any speed “up to” 32 km/h (20 mph), but has decided to bound the test speed at a lower speed of 26 km/h (16 mph) until the end of the phase-in to allow for additional sensing technology development.

The suggestion that the pole test speed should be limited to 26 to 32 km/h (16 to 20 mph) was made by the Alliance and some other commenters to the NPRM. In our final rule, we decided against the suggestion because our crash data showed that crashes with a delta-V of 26 km/h (16 mph) or less resulted in approximately a third of the fatalities and almost half of the MAIS 3–5 non-fatal injured occupants in near-side crashes. Based on the crash data, we believed there was a safety need to require manufacturers to ensure that vehicles provide improved protection in crashes below 26 km/h (16 mph). We wanted to ensure that occupants would be protected if, for example, head contact could occur with a pole or other rigid narrow object. We also believed that the threshold for deployment of side impact air bags would vary based on vehicle design. Establishing a lower test speed range in the oblique pole test could have the causal effect of establishing “design points” for restraint systems that may or may not be optimal to vehicle design or occupant protection.

We continue to believe that prescribing a 26 km/h (16 mph) lower bound for the test speed might force a test condition that would not be ideal for vehicle safety. An occupant’s head could strike a pole or rigid narrow object in crashes at less than 26 km/h (16 mph). To address the fatalities and serious injuries occurring in near-side crashes with a delta-V of 26 km/h (16 mph) or less, we again decline the request to permanently bound the pole test speed to 26 to 32 km/h (16 to 20 mph).

However, at the time of the final rule, the agency was not aware of any technical challenges to manufacturers to comply with the pole test requirements at the lower range of test speeds. The agency assumed the side impact sensing technology had developed to the state where sensors could discriminate between collision events at lower speeds and non-crash events. The

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12 E.g., the Alliance stated in its petition for reconsideration (p. 5) “NHTSA’s best data has demonstrated that, in order to comply with the requirements using the ES2-re and SID–II’s dummies, a vehicle manufacturer will need to provide countermeasures beyond the installation of a side curtain air bag or a combination side air bag.”

13 Toyota petition for reconsideration.

14 Other amended provisions related to the phase-in percentages, including the phase-in requirements for convertible vehicles, vehicles manufactured in more than one stage, and altered vehicles are addressed in sections below in this preamble.
comments to the NPRM did not raise concerns about the ability of current sensing technology to operate satisfactorily at the lower test speeds, and we did not consider in our fleet testing program the potential problems sensors would have in detecting crashes from non-crash events at the lower speeds.

The petitions for reconsideration now bring to light the limitations of current sensing technology to distinguish between situations where the side air bag should and should not deploy. GM confirmed our understanding that the lower speed at which side air bags will need to deploy will differ based upon the vehicle size, weight and available crush space between the occupant and the door trim. The petitioners also suggested that side air bag deployment will depend on whether the SID–IIs 5th percentile female test dummy or the ES–2re 50th percentile adult male test dummy is seated in the vehicle. We agree with the petitioners’ explanations that side crashes require the sensing system to quickly discern whether to deploy the air bag. GM stated that side crashes not only require a much faster decision-making process compared to frontal impacts, but they typically require deployment at much lower vehicle crash energy levels, which makes them difficult to distinguish from abuse and other non-deployment events. According to petitioners, current sensing strategies (which use deceleration sensors, or “G sensors”) cannot at lower test speeds distinguish the output needing side air bag deployment from the output characteristic of a door slamming or minor impact event. Petitioners also stated that at lower speeds in both the FMVSS No. 214 pole and MDB tests, the G sensor output is similar in magnitude and profile to door slams.

Unintended side air bag deployments have posed problems in the past, when side air bags were first introduced on the market in the late 1990s. Table 2 shows investigations conducted by NHTSA’s Office of Defects Investigation (ODI) into unintended side air bag deployments. Separate from Table 2, there have also been a number of other manufacturer voluntary recalls involving unintended side air bag deployments.

<table>
<thead>
<tr>
<th>ODI investigation No.</th>
<th>Vehicle model(s)</th>
<th>ODI resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ00–013</td>
<td>1997 Mercedes Benz E &amp; SL Class</td>
<td>00V388 for 16,255 vehicles.</td>
</tr>
</tbody>
</table>

After considering the issues raised by the petitioners, we are concerned about the potential safety implications associated with side air bags deploying without a side impact crash. NHTSA concludes that if the pole test speed were not bounded in the near term with a test speed of 26 km/h (16 mph), unwarranted deployments of the side air bags could become an issue and could negatively impact public acceptance of side air bags. The agency has thus decided to provide the manufacturers more time to select and develop the proper technology for their vehicles.

Accordingly, we are delaying the implementation of the “up to” requirements to the end of the phase-in. To meet the requirement that the pole test injury criteria must be met at any speed “up to” 42 km/h (20 mph), manufacturers will have to use new technologies and/or more sophisticated algorithms that distinguish a real crash from a non-event. GM indicated that it is working on the new sensing technologies, but needs additional time to develop them. We are therefore granting the request of the petitioner to bound the test speed range from 26 km/h to 32 km/h (16 to 20 mph) until the end of the phase-in. By providing manufacturers one year extra lead time and by extending the phase-in another year, the manufacturers will have sufficient time to develop the crash

c. Effective Date for Convertible Vehicles

VW requested that convertibles be excluded from the pole test altogether “due to their structural limitations which preclude the installation of roof-mounted curtain air bags for occupant protection.” The Alliance requested that convertible vehicles be allowed to follow the lead time requirements applicable to vehicles with a GVWR greater than 8,500 lb, i.e., all vehicles manufactured on or after September 1 of the fifth production year after the start of the phase-in. The Alliance stated that it did not believe the challenges for convertible vehicles to meet the side pole test requirements are insurmountable. However, the Alliance stated, due to the inherent design constraints of convertibles (i.e., lack of pillars and roof rail to store and deploy curtain air bags) and the need to apply significant structural changes, the lead time needed to ensure compliance with the pole test is significantly longer for convertibles than for non-convertible vehicles. Nissan similarly requested that we delay the effective date for convertible vehicles until the last year of the phase-in, to provide manufacturers time to develop new potential countermeasures for convertibles, such as a seat-mounted thorax and curtain air bag deployed from the door.

In our FMVSS No. 214 fleet testing program, we tested two convertible vehicle models, the 2005 model year Saab 9–3 convertible and 2005 model year Volkswagen Beetle. Both vehicle models were tested to the oblique pole test requirements using an ES–2re dummy and in each case, the vehicle met the requirements of the final rule. The tests were conducted with the ES–2re 50th percentile male dummy because the agency believed it would be more difficult for convertibles to meet the pole test with the ES–2re than with the SID–IIs 5th percentile female dummy. The ES–2re is equipped with more instrumentation in the abdomen and thorax, and its larger mass requires more energy management by the restraint system. In their petitions for reconsideration, the Alliance and VW disagreed that the ES–2re dummy test was more challenging. The Alliance cited the FMVSS No. 214 fleet testing results and stated “that the vast majority of these vehicles had larger injury assessment values when tested with the SID–IIs dummy: six out of ten vehicles had larger HIC50 values, nine out of ten vehicles had larger lower spine acceleration values, and all vehicles [footnote in text: ‘Pelvic Force data for the SID–IIs was not available for one of the ten vehicles tested’] had larger
pelvic force values.” As a result, the Alliance stated, “NHTSA has not demonstrated practicability of this rule as applied to convertibles” and requested more lead time for convertible vehicles.

After considering the issues raised by the petitioners, we have decided against VW’s request to exclude convertibles from the pole test requirements. As explained in the September 11, 2007 final rule, there is safety need to include convertible vehicles in the pole test. In our comparative analysis between convertibles and all other passenger cars in side impact crashes with fixed objects, we found that 11.3 percent of convertible fatalities are from single vehicle side impacts into poles/trees, compared to 6.5 percent of other passenger car fatalities from single vehicle side impacts into poles/trees. The fatality rate17 from single vehicle side impacts into poles/trees was 11.32 for all other passenger cars and 16.71 for convertibles. The fatalities per million registration years in single vehicle side crashes for convertibles. The fatalities per million registration years in single vehicle side crashes were 6.12 for all other passenger cars and 9.64 for convertibles.

to conclude that the SID–IIs resulted in a more rigorous test of the side air bag system. However, almost all of the vehicles cited by the Alliance (nine of ten vehicles) were equipped with roof-mounted window curtain side air bags. In determining which test dummy, the ES–2re or the SID–IIs, would produce a more demanding evaluation of a countermeasure available to convertible vehicles, we sought to assess the practicability of meeting the pole test with a seat-mounted side air bag system since convertibles will not have the roof-mounted countermeasure available to them. For seat-mounted systems, we determined that using the ES–2re, with its larger mass and more complex instrumentation as compared to the SID–IIs, would be more challenging to manufacturers of convertible vehicles in the pole test. Our test data showed that the two convertible vehicles evaluated in the FMVSS No. 214 fleet testing program met the pole test requirements.

As for testing with the SID–IIs, practicability was also shown by the results of the 2005 Subaru Forester tested in the FMVSS No. 214 fleet testing program. While not a convertible, the vehicle had a seat-mounted head and thorax combination side air bag that met the injury criteria of the pole test when tested with the SID–IIs. A recent oblique pole test of the 2006 VW Passat showed that the seat-mounted torso side air bag passed the lower spine and pelvic force injury criteria of the pole test with the SID–IIs. Side impact crashes were 6.12 for all other passenger cars and 9.64 for convertibles.

17 Data source: FARS 1999–2003. Model years 1998–2002 were used. Total registration years (in millions) were 140.8 for all other passenger cars and 4.7 for convertibles. The fatalities per million registration years in single vehicle side crashes were 11.32 for all other passenger cars and 16.71 for convertibles. The fatalities per million registration years in single vehicle side “pole/tree” crashes were 6.12 for all other passenger cars and 9.64 for convertibles.

September 1, 2013, that applied to vehicles with a GVWR greater than 3,855 kg (8,500 lb), to altered vehicles, and to vehicles manufactured in more than one stage. NTEA requested that NHTSA amend the compliance dates “such that the effective date for multi-stage produced vehicles with a gross vehicle weight rating greater than 8,500 is September 1, 2014 (one year later than the effective date for single stage produced vehicles).” NTEA stated that it would not be possible for manufacturers of vehicles produced in more than one stage (“multi-stage manufacturers”) of vehicles with a GVWR greater than 3,855 kg (8,500 lb) to comply on the same date as the chassis manufacturers of those vehicles, since multi-stage manufacturers “cannot begin planning their compliance strategies until the chassis manufacturers have validated the single stage version of the chassis.”

NHTSA has decided to grant the request to provide multi-stage manufacturers additional time to meet the upgraded FMVSS No. 214 requirements. Today’s final rule provides vehicles manufactured in more than one stage and altered vehicles until a year after completion of the phase-in for all other vehicle types, i.e., until September 1, 2016, to meet the pole test and the upgraded MDB test. To enhance the ability of manufacturers of these vehicles (which are often small businesses) to manage resources to meet the upgraded FMVSS No. 214 requirements, NHTSA is delaying the effective date for all vehicles manufactured in more than one stage and altered vehicles subject to the upgraded FMVSS No. 214 requirements, and not just vehicles with a GVWR greater than 3,855 kg (8,500 lb). This is consistent with the agency’s final rule on “Vehicles Built In Two Or More Stages,” 70 FR 7414, February 14, 2005.

e. Clarifications and Corrections

This final rule corrects some of the omissions and minor errors found in the regulatory text, as discussed below.

1. Earning Credits for Early Compliance

The final rule adopted a phased-in compliance schedule for the MDB test, aligned the phase-in schedule of the MDB test with that of the pole test, and provided for the use of advance credits to meet the MDB and pole test requirements. The Alliance asked us to clarify that for each production year, the agency meant to have separate, concurrent phase-in requirements for the MDB and pole tests. Stated differently, the petitioner asked for clarification as to whether
manufacturers may earn a credit toward meeting the upgraded MDB requirement if a vehicle met the upgraded MDB requirement, and not the pole test, ahead of schedule, and vice versa (i.e., manufacturers may earn a credit toward meeting the pole test requirement if a vehicle met the pole test ahead of schedule, and not the upgraded MDB requirement).

Our answer is yes. We did not intend that a vehicle may only earn a credit if it met both the upgraded MDB and pole tests. In the September 11, 2007 final rule, we aligned the MDB and pole test phase-in schedules, and provided advance credits, to let manufacturers optimize engineering resources in designing vehicles that met the MDB and pole test requirements simultaneously, thus reducing costs. We sought to enable manufacturers the ability to use credits in a manner that efficiently distributes their resources to meet the requirements. To enhance manufacturers’ ability to optimize the allocation of engineering resources and to encourage the early introduction of vehicles meeting the upgraded MDB test or the pole test, the phase-in schedules for the MDB and pole test requirements were made separate and concurrent.

Thus, a vehicle that is not subject to the MDB test (e.g., a vehicle with a GVWR greater than 6,000 lb) may earn a credit toward the pole test if the manufacturer installed side air bags meeting the FMVSS No. 214 pole test ahead of schedule. Similarly, with separate compliance schedules, a manufacturer has incentive to modify a vehicle to meet the upgraded MDB requirements in the short term, to earn a credit toward the MDB phase-in, even when the vehicle needs a few years to meet the pole test. The agency has clarified the regulatory text of the standard to make clear that the phase-in schedules are separate and that manufacturers may earn credits for meeting the MDB test separate from earning credits for meeting the pole test, and vice versa.

2. SID–II Dummy Arm Positioning

In the preamble to the September 11, 2007 final rule, we specified that the SID–II arm position for the dummy seated in the driver and front passenger seating positions will be 40 degrees relative to torso (72 FR at 51939).

The Alliance petitioned: (a) To change this specification to one that specifies that the arm position is set in the detent representing a 45 degree angle between the torso and the arm; and (b) to use this specification for all seating positions in both the pole test and MDB tests.

The agency agrees to these suggestions. The reference to the 40 degree angle relative to torso was incorrect, as the shoulder-arm joint allows for discrete arm positions at 0, ± 45, ± 90, ± 135, and 180 degree settings where positive is forward of the spine, and does not have a discrete 40 degree setting.

Further, the agency inadvertently did not address in the September 11, 2007 final rule the arm position for the rear seat dummy. We agree with the Alliance that the arm position for the rear seat dummy should be placed at the 45 degree angle detent position, for the reasons explained in the September 11, 2007 final rule (testing with the arm up reduces possible interactions with the armrest—and resulting test variability—and also will not degrade the robustness of the test).

Further, we agree with the petitioner that testing with the arm up results in a more meaningful test, as the dummy’s thorax is fully exposed to the door trim.

3. Definition of Limited Line Manufacturer

In the regulatory text of FMVSS No. 214 published in the September 11, 2007 final rule, the definition of “limited line manufacturer” states that the term “carline” is defined in 49 CFR 585.4. Delphi pointed out that the reference to 585.4 is incorrect. The correct reference is 49 CFR 583.4. (See definition of “limited line manufacturer” in Subpart H of Part 585, “Side Impact Protection Phase-In Reporting Requirements,” published with the FMVSS No. 214 final rule, September 11, 2007, 72 FR 51972). This document makes the correction to FMVSS No. 214.

4. Reinstate the Seat Adjustment Procedure for 50th Percentile SID and SID–II Dummy in the MDB and FMVSS No. 201 Pole Tests, Respectively

The final rule adopted the seat adjustment procedure for the 50th percentile male ES–2re dummy proposed in the NPRM and removed from the regulatory text the procedure previously used for the 50th percentile male SID dummy in the MDB test. The seat adjustment procedure referenced for the pole test using the SID–II dummy (49 CFR Part 572, Subpart M) in FMVSS No. 201, “Occupant protection in interior impact,” was also changed to be consistent. The Alliance petitioned the agency to reinstate the seat adjustment procedure that had been in FMVSS No. 214 before the September 11, 2007 final rule (“pre-existing seat adjustment procedure”) to use with the SID and SID–II dummy because the new seat adjustment procedure can result in a different seat position and dummy location than when using the pre-existing seat adjustment procedure.

The petitioners stated that vehicles currently certified to FMVSS Nos. 214 and 201 with the SID and SID–II dummy would have to be recertified to account for changes in the seat position and dummy location.

The agency agrees with the Alliance that the new seat adjustment procedure can place the SID and SID–II dummy at a slightly different location in the vehicle when compared to the pre-existing seat adjustment procedure. It was not our intent for manufacturers to recertify vehicles to a new dummy position with the SID and SID–II dummy during the phase-out of the pre-existing FMVSS requirements.

Therefore, we agree to reinstitute the pre-existing seat adjustment procedure for use with the SID in the MDB test until the phase-in of the new requirements is complete and for use with the SID–II in FMVSS No. 201 pole tests. Thus, when the SID and SID–II are used in compliance testing, the seat adjustment procedure that had been in FMVSS No. 214 before the September 11, 2007 will be used. When we use the ES–2re dummy in compliance tests, we will use the new seating procedure adopted in the September 11, 2007 final rule.

VI. Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

This rulemaking document was not reviewed by the Office of Management and Budget under E.O. 12866. It is not considered to be significant under E.O. 12866 or the Department’s Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). This document amends the lead time and phase-in percentages set forth in the September 11, 2007 final rule and specifies the test speed for the pole test as 26 km/h to 32 km/h (16 mph to 20 mph) until the end of the phase-in. These changes are made to reflect better the capabilities of manufacturers in meeting the
requirements of the September 11, 2007 final rule. The document also corrects minor errors and clarifies text of the final rule. The minimal impacts of today's amendment do not warrant preparation of a regulatory evaluation.

**Regulatory Flexibility Act**

The Regulatory Flexibility Act of 1980, as amended, requires agencies to evaluate the potential effects of their proposed and final rules on small businesses, small organizations, and small governmental jurisdictions. I hereby certify that this rule will not have a significant economic impact on a substantial number of small entities. Small organizations and small governmental units will not be significantly affected since the potential cost impacts associated with this action will not affect the price of new motor vehicles.

The rule will have a positive effect on motor vehicle manufacturers. This final rule amends the lead time and phase-in percentages set forth in the September 11, 2007 final rule and specifies the test speed for the pole test as 26 km/h to 32 km/h (16 mph to 20 mph) until the end of the phase-in. These changes will positively affect vehicle manufacturers, including small vehicle manufacturers, of which there are four, in that it better reflects the manufacturing capabilities of the manufacturers in meeting the September 11, 2007 final rule than the lead time and phase-in requirements as originally established in that document. The rule also provides more time to final-stage manufacturers and alters to meet the requirements of the September 11, 2007 final rule. This will have a positive impact on those manufacturers, as they will be given more time and thus more flexibility to manage their engineering designs and resources in planning for compliance with the FMVSS No. 214 upgrade.

**Executive Order 13132 (Federalism)**

NHTSA has examined today's final rule pursuant to Executive Order 13132 (64 FR 43255, August 10, 1999) and concluded that no additional consultation with States, local governments, or their representatives is mandated beyond the rulemaking process. The agency has concluded that the rule does not have federalism implications because the rule does not have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

Further, no consultation is needed to discuss the preemptive effect of today's rule. NHTSA rules can have preemptive effect in at least two ways. First, the National Traffic and Motor Vehicle Safety Act contains an express preemptive provision: “When a motor vehicle safety standard is in effect under this chapter, a State or a political subdivision of a State may prescribe or continue in effect a standard applicable to the same aspect of performance of a motor vehicle or motor vehicle equipment only if the standard is identical to the standard prescribed under this chapter.” 49 U.S.C. 30103(b)(1). It is this statutory command that preempts State law, not today's rulemaking, so consultation would be inappropriate.

In addition to the express preemption noted above, the Supreme Court has also recognized that State requirements imposed on motor vehicle manufacturers, including sanctions imposed by State tort law, can stand as an obstacle to the accomplishment and execution of a NHTSA safety standard. When such a conflict is discerned, the Supremacy Clause of the Constitution makes their State requirements unenforceable. See Geier v. American Honda Motor Co., 529 U.S. 861 (2000). NHTSA has not outlined such potential State requirements in today's rulemaking, however, in part because such conflicts can arise in varied contexts, but it is conceivable that such a conflict may become clear through subsequent experience with today's requirements. NHTSA may opine on such conflicts in the future, if warranted. See id. at 883–86.

**Unfunded Mandates Reform Act**

The Unfunded Mandates Reform Act of 1995 (UMRA) requires Federal agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local or tribal governments, in the aggregate, or by the private sector, of more than $100 million annually (adjusted annually for inflation, with base year of 1995). This final rule will not result in expenditures by State, local or tribal governments, in the aggregate, or by the private sector in excess of $100 million annually.

**National Environmental Policy Act**

NHTSA has analyzed this final rule for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action will not have any significant impact on the quality of the human environment.

Civil Justice Reform

With respect to the review of the promulgation of a new regulation, section 3(b) of Executive Order 12988, “Civil Justice Reform” (61 FR 4729, February 7, 1996) requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with that requirement.

Pursuant to this Order, NHTSA notes as follows. The preemptive effect of this rule is discussed above. NHTSA notes further that there is no requirement that individuals submit a petition for reconsideration or pursue other administrative proceeding before they may file suit in court.

**Paperwork Reduction Act (PRA)**

Under the PRA of 1995, a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. The September 11, 2007 final rule contained a collection of information because of the phase-in reporting requirements. There is no burden to the general public.

The September 11, 2007 final rule required manufacturers of passenger cars and of trucks, buses and MPVs with a GVWR of 4,536 kg (10,000 lb) or less, to annually submit a report, and maintain records related to the report, concerning the number of such vehicles that meet the vehicle-to-pole and MDB test requirements of FMVSS No. 214 during the phase-in of those requirements. The purpose of the reporting and recordkeeping requirements is to assist the agency in determining whether a manufacturer of vehicles has complied with the requirements during the phase-in period. Today's final rule extends the lead time period and phase-in of both the pole and MDB test requirements.

**National Technology Transfer and Advancement Act**

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. 104–113), all Federal agencies and departments shall use technical standards that are developed or

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20 Avanti, Panoz, Saleen, and Shelby.
adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.

Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies, such as the International Organization for Standardization (ISO) and the Society of Automotive Engineers. The NHTSA directs us to provide Congress, through OMB, explanations when we decide not to use available and applicable voluntary consensus standards.

The September 11, 2007 final rule discussed that NHTSA considered a proposed ISO test procedure found in ISO/SC10/WG1 (October 2001) and ISO draft technical reports related to side air bags performance to guide our decision-making to the extent consistent with the National Traffic and Motor Vehicle Safety Act (49 U.S.C. 30101 et seq.). In today’s final rule, we explain our reasons for retaining the requirement that the FMVSS No. 214 pole test injury criteria must be met at any speed “up to” 32 km/h (20 mph).

Plain Language

Executive Order 12866 requires each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

- Have we organized the material to suit the public’s needs?
- Could we improve clarity by adding tables, lists, or diagrams?
- Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
- Would more (but shorter) sections be better?
- What else could we do to make the rule easier to understand?

If you have any responses to these questions, please write to us with your views.

Appendix to Preamble

### Appendix to Preamble

<table>
<thead>
<tr>
<th>Production period</th>
<th>Pole test</th>
<th>MDB test</th>
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<tbody>
<tr>
<td></td>
<td>Pole test speed</td>
<td>Exclusions from pole test</td>
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<td>GVWR &gt; 8,500 lb</td>
<td>Convertibles</td>
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<td>On or after September 1, 2016.</td>
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* Limited line and small volume manufacturers, alterers, and multistage manufacturers are excluded from the 20/40/60/80 phase-in requirements for both the pole and MDB tests.

### Table A of Appendix—Percent of Each Manufacturer’s Vehicles That Must Comply with the Pole and MDB Tests During the Production Period

List of Subjects

49 CFR Part 571

Imports, Incorporation by reference, Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

49 CFR Part 585

Motor vehicle safety, Reporting and recordkeeping requirements

In consideration of the foregoing, NHTSA amends 49 CFR Chapter V as set forth below.

### PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

| § 571.201 Standard No. 201; Occupant protection in interior impact. |
|---|---|
| S8.18 Adjustable seats—vehicle to pole test. Initially, adjustable seats shall be adjusted as specified in S8.3.2.1 of Standard 214 (49 CFR 571.214). |
| S8.19 Adjustable seat back placement—vehicle to pole test. Initially, position adjustable seat backs in the manner specified in S8.3.2.2 of Standard 214 (49 CFR 571.214). |
S8.28 Positioning procedure for the Part 572 Subpart M test dummy—vehicle to pole test. The part 572, subpart M, test dummy is initially positioned in the front outboard seating position on the struck side of the vehicle in accordance with the provisions of S12.1 of Standard 214 (49 CFR 571.214), and the vehicle seat is positioned as specified in S8.3.2.1 and S8.3.2.2 of that standard. * * *

3. Section 571.214 is amended by:
   a. Revising the definition of “Limited line manufacturer” in S3;
   b. Revising S7.1;
   c. Revising the heading of S7.2.1, paragraphs S7.2.1(a) and S7.2.1(b), the heading of S7.2.2, paragraph S7.2.2(a), S7.2.4, and the heading of S8.3.1;
   d. Adding S8.3.2.1, S8.3.2.2, and S8.3.2.3.

§571.214 Standard No. 214; Side impact protection.

* * * * *

S3 Definitions.

* * *

Limited line manufacturer means a manufacturer that sells three or fewer carlines, as that term is defined in 49 CFR 583.4, in the United States during a production year.

* * * * *

S7.1 MDB test with SID. For vehicles manufactured before September 1, 2010, the following requirements must be met. The following requirements also apply to vehicles manufactured on or after September 1, 2010 that are not part of the percentage of a manufacturer’s production meeting the MDB test with advanced test dummies (S7.2 of this section) or are otherwise excluded from the phase-in requirements of S7.2. (Vehicles manufactured before September 1, 2010 may meet S7.2, at the manufacturer’s option.)

* * * * *

S7.2 MDB test with advanced test dummies.

S7.2.1 Vehicles manufactured on or after September 1, 2010 to August 31, 2014.

(a) Except as provided in S7.2.4 of this section, for vehicles manufactured on or after September 1, 2010 to August 31, 2014, a percentage of each manufacturer’s production, as specified in S13.1.1, S13.1.2, S13.1.3, and S13.1.4, shall meet the requirements of S7.2.5 and S7.2.6 when tested with the test dummy specified in those sections.

Vehicles manufactured before September 1, 2014 may be certified as meeting the requirements of S7.2.5 and S7.2.6.

(b) For vehicles manufactured on or after September 1, 2010 that are not part of the percentage of a manufacturer’s production meeting S7.2.1 of this section, the requirements of S7.1 of this section must be met.

* * * * *

S7.2.2 Vehicles manufactured on or after September 1, 2014.

(a) Subject to S7.2.4 of this section, each vehicle manufactured on or after September 1, 2014 must meet the requirements of S7.2.5 and S7.2.6, when tested with the test dummy specified in those sections.

* * * * *

S7.2.4 Exceptions from the MDB phase-in: special allowances.

(a)(1) Vehicles that are manufactured by an original vehicle manufacturer that produces or assembles fewer than 5,000 vehicles annually for sale in the United States are not subject to S7.2.1 of this section (but vehicles that will be manufactured on or after September 1, 2014 are subject to S7.2.2).

(2) Vehicles that are manufactured by a limited line manufacturer are not subject to S7.2.1 of this section (but vehicles that will be manufactured on or after September 1, 2014 are subject to S7.2.2).

(b) Vehicles that are altered (within the meaning of 49 CFR 567.7) before September 1, 2016 after having been previously certified in accordance with part 567 of this chapter, and vehicles manufactured in two or more stages before September 1, 2016, are not subject to S7.2.1. Vehicles that are altered on or after September 1, 2016, and vehicles that are manufactured in two or more stages on or after September 1, 2016, must meet the requirements of S7.2.5 and S7.2.6, when tested with the test dummy specified in those sections. Place the Subpart U ES–2re 50th percentile male dummy in the front seat and the Subpart V SID-IIs 5th percentile female test dummy in the rear seat. The test dummies are placed and positioned in the front and rear outboard seating positions on the struck side of the vehicle, as specified in S11 and S12 of this standard (49 CFR 571.214).

* * * * *

S8.3.1 50th Percentile Male ES–2re Dummy (49 CFR Part 572 Subpart U) In Front Seats

* * * * *

S8.3.2 50th Percentile Male SID Dummy (49 CFR Part 572 Subpart F) in Front and Rear Seats

S8.3.2.1 Adjustable seats.

Adjustable seats are placed in the adjustment position midway between the forward most and rearmost positions, and if separately adjustable in a vertical direction, are at the lowest position. If an adjustment position does not exist midway between the forward most and rearmost positions, the closest adjustment position to the rear of the mid-point is used.

S8.3.2.2 Adjustable seat back placement. Place adjustable seat backs in the manufacturer’s nominal design riding position in the manner specified by the manufacturer. If the position is not specified, set the seat back at the first detent rearward of 25° from the vertical. Place each adjustable head restraint in its highest adjustment position. Position adjustable lumbar supports so that they are set in their released, i.e., full back position.

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S9. Vehicle-To-Pole Requirements.

S9.1 Except as provided in S5, when tested under the conditions of S10:

S9.1.1 Except as provided in S9.1.3 of this section, for vehicles manufactured on or after September 1, 2010 to August 31, 2014, a percentage of each manufacturer’s production, as specified in S13.1.1, S13.1.2, S13.1.3, and S13.1.4 shall meet the requirements of S9.2.1, S9.2.2, and S9.2.3 when tested under the conditions of S10 into a fixed, rigid pole of 254 mm (10 inches) in diameter, at any velocity between 26 km/h to 32 km/h (16 to 20 mph) inclusive. Vehicles manufactured before September 1, 2014 that are not subject to the phase-in may be certified as meeting the requirements specified in this section.

S9.1.2 Except as provided in S9.1.3 of this section, each vehicle manufactured on or after September 1, 2014, must meet the requirements of S9.2.1, S9.2.2 and S9.2.3, when tested under the conditions specified in S10 into a fixed, rigid pole of 254 mm (10 inches) in diameter, at any speed up to and including 32 km/h (20 mph). All vehicles manufactured on or after September 1, 2014 must meet S9.1.2 without the use of advance credits.

S9.1.3 Exceptions from the phase-in; special allowances.

(a)(1) Vehicles that are manufactured by an original vehicle manufacturer that produces or assembles fewer than 5,000 vehicles annually for sale in the United States are not subject to S9.1.1 of this section (but vehicles manufactured on or after September 1, 2014 by those manufacturers are subject to S9.1.2).

(2) Vehicles that are manufactured by a limited line manufacturer are not
subject to S9.1.1 of this section (but vehicles manufactured on or after September 1, 2014 by these manufacturers are subject to S9.1.2).

(b) Vehicles that are altered (within the meaning of 49 CFR 567.7) before September 1, 2016 after having been previously certified in accordance with part 567 of this chapter, and vehicles manufactured in two or more stages before September 1, 2016, are not subject to S9.1.1. Vehicles that are altered on or after September 1, 2016, and vehicles that are manufactured in two or more stages on or after September 1, 2016, must meet the requirements of S9.1.2, when tested under the conditions specified in S10 into a fixed, rigid pole of 254 mm (10 inches) in diameter, at any speed up to and including 32 km/h (20 mph).

(c) Vehicles with a gross vehicle weight rating greater than 3,855 kg (8,500 lb) manufactured before September 1, 2015 are not subject to S9.1.1 or S9.1.2 of this section. These vehicles may be voluntarily certified to meet the pole test requirements prior to September 1, 2015. Vehicles with a gross vehicle weight rating greater than 3,855 kg (8,500 lb) manufactured on or after September 1, 2015 must meet the requirements of S9.2.1, S9.2.2 and S9.2.3, when tested under the conditions specified in S10 into a fixed, rigid pole of 254 mm (10 inches) in diameter, at any speed up to and including 32 km/h (20 mph).

(d) (1) Convertibles manufactured before September 1, 2015 are not subject to S9.1.1 or S9.1.2 of this section. These vehicles may be voluntarily certified to meet the pole test requirements prior to September 1, 2015.

(2) Convertibles manufactured on or after September 1, 2015 must meet the requirements of S9.2.1, S9.2.2 and S9.2.3, when tested under the conditions specified in S10 into a fixed, rigid pole of 254 mm (10 inches) in diameter, at any speed up to and including 32 km/h (20 mph).

S12.3.2  5th percentile female driver dummy positioning.

(c) Driver arm/hand positioning. Place the dummy’s upper arm such that the angle between the projection of the arm centerline on the midsagittal plane of the dummy and the torso reference line is $45\pm 5^\circ$. The torso reference line is defined as the thoracic spine centerline. The shoulder-arm joint allows for discrete arm positions at $0\pm 45$, $\pm 90\pm 135$, and 180 degree settings where positive is forward of the spine.

S12.3.3  5th percentile female front passenger dummy positioning.

(c) Passenger arm/hand positioning. Place the dummy’s upper arm such that the angle between the projection of the arm centerline on the midsagittal plane of the dummy and the torso reference line is $45\pm 5^\circ$. The torso reference line is defined as the thoracic spine centerline. The shoulder-arm joint allows for discrete arm positions at $0\pm 45$, $\pm 90\pm 135$, and 180 degree settings where positive is forward of the spine.

S13  Phase-in of moving deformable barrier and vehicle-to-pole performance requirements.

S13.1  Vehicles manufactured on or after September 1, 2010 and before September 1, 2014. At any time during the production years ending August 31, 2011, August 31, 2012, August 31, 2013, and August 31, 2014, each manufacturer shall, upon request from the Office of Vehicle Safety Compliance, provide information identifying the vehicles (by make, model and vehicle identification number) that have been certified as complying with the moving deformable barrier test with advanced test dummies (S7.2), or the vehicles (by make, model and vehicle identification number) that have been certified as complying with the vehicle-to-pole test requirements (S9.1) of this standard. The manufacturer’s designation of a vehicle as a certified vehicle meeting S7.2 or S9.1 is irrevocable.

S13.1.1  Vehicles manufactured on or after September 1, 2010 and before September 1, 2011.

(a) Subject to S13.4, for vehicles manufactured on or after September 1, 2010 and before September 1, 2011, the number of vehicles complying with S9.1 shall be not less than 20 percent of:

1. The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
2. The manufacturer’s production in the current production year.

S13.1.2  Vehicles manufactured on or after September 1, 2011 and before September 1, 2012.

(a) Subject to S13.4, for vehicles manufactured on or after September 1, 2011 and before September 1, 2012, the number of vehicles complying with S7.2 shall be not less than 40 percent of:

1. The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
2. The manufacturer’s production in the current production year.

(b) Subject to S13.4, for vehicles manufactured on or after September 1, 2011 and before September 1, 2012, the number of vehicles complying with S9.1 shall be not less than 40 percent of:

1. The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
2. The manufacturer’s production in the current production year.

S13.1.3  Vehicles manufactured on or after September 1, 2012 and before September 1, 2013.

(a) Subject to S13.4, for vehicles manufactured on or after September 1, 2012 and before September 1, 2013, the number of vehicles complying with S7.2 shall be not less than 60 percent of:

1. The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
2. The manufacturer’s production in the current production year.

(b) Subject to S13.4, for vehicles manufactured on or after September 1, 2012 and before September 1, 2013, the number of vehicles complying with S9.1 shall be not less than 60 percent of:

1. The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
2. The manufacturer’s production in the current production year.
shall be not less than 80 percent of:

(1) The manufacturer’s average annual production of vehicles manufactured in the three previous production years; or
(2) The manufacturer’s production in the current production year.

S13.3(a) For the purposes of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer under S13.1.1(a), S13.1.2(a), S13.1.3(a), and S13.1.4(a), do not count any vehicle that is excluded by Standard No. 214 from the moving deformable barrier test with the ES-2re or SID-IIs test dummies (S7.2).

(b) For the purposes of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer under S13.1.1(b), S13.1.2(b), S13.1.3(b), and S13.1.4(b), do not count any vehicle that is excluded by Standard No. 214 from the vehicle-to-pole test (S9).

Calculation of complying vehicles.

(a) For the purposes of calculating the vehicles complying with S13.1.1, a manufacturer may count a vehicle if it is manufactured on or after October 11, 2007 but before September 1, 2011.

(b) For purposes of complying with S13.1.2, a manufacturer may count a vehicle if it—

(1) Is manufactured on or after October 11, 2007 but before September 1, 2012 and,

(2) Is not counted toward compliance with S13.1.1.

(c) For purposes of complying with S13.1.3, a manufacturer may count a vehicle if it—

(1) Is manufactured on or after October 11, 2007 but before September 1, 2013 and,

(2) Is not counted toward compliance with S13.1.1 or S13.1.2.

(d) For purposes of complying with S13.1.4, a manufacturer may count a vehicle if it—

(1) Is manufactured on or after October 11, 2007 but before September 1, 2014 and,

(2) Is not counted toward compliance with S13.1.1, S13.1.2, or S13.1.3.

(e) For the purposes of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer, each vehicle that is excluded from having to meet the applicable requirement is not counted.

PART 585—PHASE-IN REPORTING REQUIREMENTS

1. The authority citation for part 585 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117 and 30166; delegation of authority at 49 CFR 1.50.

Subpart H—Side Impact Protection Phase-in Reporting Requirements

2. Revise §585.75 to read as follows.

§585.75 Response to inquiries.

At any time during the production years ending August 31, 2011, August 31, 2012, August 31, 2013, and August 31, 2014, each manufacturer shall, upon request from the Office of Vehicle Safety Compliance, provide information identifying the vehicles (by make, model and vehicle identification number) that have been certified as complying with the moving deformable barrier test with advanced test dummies (S7.2) or the vehicles (by make, model and vehicle identification number) that have been certified as complying with the vehicle-to-pole test requirements (S9.1) of FMVSS No. 214 (49 CFR 571.214). The manufacturer’s designation of a vehicle as a certified vehicle that meets S7.2 or S9.1 is irrevocable.

3. Revise §585.76 (a), (b), (c), and (d)(2) to read as follows.

§585.76 Reporting requirements.

(a) Advanced credit phase-in reporting requirements. (1) Within 60 days after the end of the production years ending August 31, 2008, through August 31, 2014, each manufacturer choosing to certify vehicles manufactured during any of those production years as complying with the upgraded moving deformable barrier (S7.2 of Standard No. 214)(49 CFR 571.214) or vehicle-to-pole requirements (S9) of Standard No. 214 shall submit a report to the National Highway Traffic Safety Administration providing the information specified in paragraph (c) of this section and in §585.2 of this part.

(b) Phase-in reporting requirements. Within 60 days after the end of each of the production years ending August 31, 2011, August 31, 2012, August 31, 2013, and August 31, 2014, each manufacturer shall submit a report to the National Highway Traffic Safety Administration concerning its compliance with the moving deformable barrier requirements of S7 of Standard No. 214 and with the vehicle-to-pole requirements of S9 of that Standard for its vehicles produced in that year. Each report shall provide the information specified in paragraph (c) of this section and in section 585.2 of this part.

(c) Advanced credit phase-in report content—(1) Production of complying vehicles. With respect to the reports identified in §585.76(a), each manufacturer shall report for the production year for which the report is filed the number of vehicles, by make and model year: That are certified as meeting the moving deformable barrier test requirements of S7.2 of Standard No. 214, Side impact protection (49 CFR 571.214), and that are certified as meeting the vehicle-to-pole test requirements of S9 of Standard No. 214.

(d) Phase-in report content—

(2) Production of complying vehicles. Each manufacturer shall report for the production year being reported on, and each preceding production year, to the extent that vehicles produced during the preceding years are treated under Standard No. 214 as having been produced during the production year being reported on, information on the number of vehicles that meet the moving deformable barrier test requirements of S7 of Standard No. 214, Side Impact Protection (49 CFR 571.214), and the number of vehicles that meet the vehicle-to-pole test requirements of S9 of that standard.

4. Revise §585.77 to read as follows.

§585.77 Records

Each manufacturer shall maintain records of the Vehicle Identification Number for each vehicle for which information is reported under §585.76 until December 31, 2018.

Issued on: May 15, 2008.

Nicole R. Nason,
Administrator.

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