

**PART 4044—ALLOCATION OF ASSETS IN SINGLE-EMPLOYER PLANS**

■ 4. The authority citation for part 4044 continues to read as follows:

Authority: 29 U.S.C. 1301(a), 1302(b)(3), 1341, 1344, 1362.

■ 5. In appendix B to part 4044, a new entry for April–June 2010 is added to the table to read as follows:

**Appendix B to Part 4044—Interest Rates Used to Value Benefits**

\* \* \* \* \*

For valuation dates occurring in the months—	The values of $i_t$ are:					
	$i_t$	for $t =$	$i_t$	for $t =$	$i_t$	for $t =$
April–June 2010 .....	0.0463	1–20	0.0451	>20	N/A	N/A

Issued in Washington, DC, on this March 9, 2010.

**Vincent K. Snowbarger,**

*Acting Director, Pension Benefit Guaranty Corporation.*

[FR Doc. 2010–5541 Filed 3–12–10; 8:45 am]

**BILLING CODE 7709–01–P**

from the Inspection Service or the Manager, Mailing Standards, USPS Headquarters, unless an appeal is taken to the Judicial Officer Department in accordance with rules of procedure set out in part 959 of this chapter.

\* \* \* \* \*

■ 3. Revise § 310.6 to read as follows:

**§ 310.6 Advisory opinions.**

An advisory opinion on any question arising under this part and part 320 of this chapter may be obtained by writing the General Counsel, U.S. Postal Service, 475 L'Enfant Plaza SW., Washington, DC 20260–1100. A numbered series of advisory opinions is available for inspection by the public in the Library of the U.S. Postal Service, and copies of individual opinions may be obtained upon payment of charges for duplicating services.

**PART 320—[AMENDED]**

■ 4. The authority citation for 39 CFR Part 320 continues to read as follows:

Authority: 39 U.S.C. 401, 404, 601–606; 18 U.S.C. 1693–1699.

■ 5. In § 320.3:

■ a. Revise paragraph (a) to read as set forth below; and

■ b. Amend paragraph (b) in the second sentence by removing the words “the RCSC” and adding the words “Mailing Standards” in their place.

**§ 320.3 Operations under suspension for certain data processing materials.**

(a) Carriers intending to establish or alter operations based on the suspension granted pursuant to § 320.2 shall, as a condition to the right to operate under the suspension, notify the Manager, Mailing Standards, U.S. Postal Service, 475 L'Enfant Plaza SW, Rm. 3436, Washington, DC 20260–3436, of their intention to establish such operations not later than the beginning of such operations. Such notification, on a form available from the office of Mailing Standards, shall include information on the identity and authority of the carrier

and the scope of its proposed operations.

\* \* \* \* \*

**Stanley F. Mires,**

*Chief Counsel, Legislative.*

[FR Doc. 2010–5622 Filed 3–12–10; 8:45 am]

**BILLING CODE 7710–12–P**

**POSTAL SERVICE**

**39 CFR Parts 310 and 320**

**Restrictions on Private Carriage of Letters**

**AGENCY:** Postal Service™

**ACTION:** Final rule.

**SUMMARY:** This rule amends the Postal Service regulations on the enforcement and suspension of the Private Express Statutes to correct obsolete addresses.

**DATES:** *Effective Date:* March 15, 2010.

**FOR FURTHER INFORMATION CONTACT:**

Garry Rodriguez, 202–268–7281.

**SUPPLEMENTARY INFORMATION:**

Amendment of parts 310 and 320 is necessary to correct the addresses for inquiries and other correspondence regarding enforcement of the Private Express Statutes.

**List of Subjects in 39 CFR Parts 310 and 320**

Advertising; Computer technology.

■ For the reasons set forth above, the Postal Service amends 39 CFR Chapter I, Subchapter E as follows:

**PART 310—[AMENDED]**

■ 1. The authority citation for 39 CFR part 310 continues to read as follows:

Authority: 39 U.S.C. 401, 404, 601–606; 18 U.S.C. 1693–1699.

■ 2. Revise § 310.5(b) to read as follows:

**§ 310.5 Payment of postage on violation.**

\* \* \* \* \*

(b) The amount equal to postage will be due and payable not later than 15 days after receipt of formal demand

**DEPARTMENT OF TRANSPORTATION**

**National Highway Traffic Safety Administration**

**49 CFR Part 571**

[Docket No. NHTSA–2010–0032]

**RIN 2127–AK48**

**Federal Motor Vehicle Safety Standards; Side Impact Protection; Fuel System Integrity; Electric-Powered Vehicles; Electrolyte Spillage and Electrical Shock Protection**

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

**ACTION:** Final rule; response to petitions for reconsideration.

**SUMMARY:** This document comprises the agency’s second of two responses to petitions for reconsideration of a September 11, 2007, final rule that upgraded Federal Motor Vehicle Safety Standard (FMVSS) No. 214, “Side impact protection.” The final rule incorporated a vehicle-to-pole test into the standard, adopted technically-advanced test dummies and enhanced injury criteria, and incorporated the advanced dummies into the standard’s moving deformable barrier test. An earlier response was published on June 9, 2008, which addressed lead time, phase-in percentages, test speed, and other issues. Today’s response addresses the remaining issues raised by the petitions.

**DATES:** *Effective Date:* The date on which this final rule amends the CFR is May 14, 2010.

If you wish to petition for reconsideration of this rule, your petition must be received by April 29, 2010.

**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 dockets 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).

**FOR FURTHER INFORMATION CONTACT:** For non-legal issues, you may call Christopher J. Wiacek, NHTSA Office of Crashworthiness Standards, telephone 202-366-4801. For legal issues, you may call Deirdre Fujita, NHTSA Office of Chief Counsel, telephone 202-366-2992. You may send mail to these officials at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., West Building, Washington, DC 20590.

**SUPPLEMENTARY INFORMATION:**

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**I. Background**

On September 11, 2007, NHTSA published a final rule that upgraded Federal Motor Vehicle Safety Standard (FMVSS) No. 214, "Side impact protection," (72 FR 51908, Docket No. NHTSA-29134).<sup>1</sup> Until the final rule, the only dynamic test in FMVSS No. 214 was a moving deformable barrier (MDB) test simulating an intersection collision with one vehicle being struck in the side by another vehicle. In the MBD test, vehicles are required to provide thoracic and pelvic protection to the driver and rear seat occupant on the struck side of the vehicle, as measured by a side impact dummy (SID) representing a 50th percentile adult male. NHTSA upgraded FMVSS No. 214 to require all light vehicles with a gross vehicle weight rating (GVWR) of 4,536 kilograms (kg) or less (10,000 pounds (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<sup>2</sup> and torso side air bags, which are capable of improving head and thorax protection to occupants of vehicles that crash into poles and trees or of vehicles that are laterally struck by a higher-riding vehicle. In the final rule, NHTSA estimated that side impact air bags reduce fatality risk for nearside occupants by an estimated 24 percent;

<sup>1</sup> The final rule fulfilled the mandate of the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)." 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 passenger motor vehicle occupant protection, in all seating positions, in side impact crashes."

<sup>2</sup> These different side air bag systems are described in a glossary in Appendix A to the September 11, 2007 final rule (72 FR at 51954).

torso bags alone, by 14 percent.<sup>3</sup> 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. The agency estimated that the final rule will prevent 311 fatalities and 361 serious injuries a year when fully implemented throughout the light vehicle fleet.<sup>4</sup>

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 5 feet 4 inches (163 cm), which crash data indicates comprise 34 percent of all serious and fatal injuries to near-side occupants in side impacts. The SID-IIs better represents small stature occupants than the SID (50th percentile adult male dummy) used today in FMVSS No. 214.<sup>5</sup>

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 will have to provide head, enhanced thoracic and pelvic protection to occupants ranging from mid-size males to small occupants in vehicle-to-vehicle side crashes.

The September 11, 2007, final rule provided lead time for and phased in the pole test requirements, making allowance for use of advanced credits towards meeting the new requirements, and other adjustments to the schedule for heavier vehicles. The rule also

<sup>3</sup> Final Regulatory Impact Analysis, "FMVSS No. 214; Amending side impact dynamic test; Adding oblique pole test," Docket No. NHTSA-29134. See also, "An Evaluation of Side Impact Protection, FMVSS 214 TTI(d) Improvements and Side Air Bags," January 2007, NHTSA Technical Report DOT HS 810 748.

<sup>4</sup> The cost of the most likely potential countermeasure—a 2-sensor per vehicle window curtain and separate thorax side air bag system—compared to no side air bags was estimated to be \$243 per vehicle. After analyzing the data voluntarily submitted by manufacturers on their planned installation of side air bag systems, NHTSA estimated the final rule will increase the average vehicle cost by \$33 and increase total annual costs for the fleet by \$560 million.

<sup>5</sup> Samaha R. S., Elliott D. S., "NHTSA Side Impact Research: Motivation for Upgraded Test Procedures," 18th International Technical Conference on the Enhanced Safety of Vehicles Conference (ESV), Paper No. 492, 2003.

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),<sup>6</sup> 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.

**Lead time.** The final rule specified that manufacturers must begin meeting the upgraded pole and MDB test requirements on a phased-in schedule beginning two years from the publication of the final rule. The Alliance, Toyota, Nissan, Porsche asked for more time to begin the start of the phase-in.

**Lower bound on speed range for the pole test.** The final rule specified that vehicles must meet the requirements of the pole test when tested “at any speed up to and including 32 kilometers per hour (km/h)(20 mph).” The Alliance, GM, Toyota, Porsche petitioned to bound the test speed at a lower speed of 26 km/h (16 mph) or 23 km/h (14.3 mph), or (GM) delay implementation of the “up to” aspect of the requirement until the end of the phase-in to allow for additional development of sensing technology.

**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, Nissan, Porsche, and VW petitioned the agency to provide more lead time for convertibles or to exclude the vehicles from the pole test requirements.

**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 Alliance asked that this value be changed to 8,550 N.

**Multi-stage and altered vehicles, including vehicles with partitions.** The Alliance and the NTEA recommended that NHTSA “exempt” multi-stage/

altered vehicles (including vehicles with partitions behind the front seats) from the oblique pole test requirements.

**Amending test procedures and correcting typographical errors.** The Alliance and Honda cited omissions or errors in the regulatory text in need of correction. Honda 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 telescopic steering columns, and clarifying adjustment of seat belt shoulder anchorages. Bosch 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.”

## III. June 9, 2008, Response to Petitions for Reconsideration

To respond to petitioners’ concerns about lead time as quickly as possible, the agency addressed the lead time issue first and separate from other substantive issues raised by the petitions. The lead time issue, and other matters that needed to be resolved or clarified concerning lead time and the phasing-in of the new requirements, were addressed in an initial response to petitions published June 9, 2008 (73 FR 32473). That final rule:

a. Extended the lead time period before manufacturers must begin phasing in vehicles to meet the upgraded FMVSS No. 214 requirements to September 1, 2010, and amended the percentages of manufacturers’ vehicles that are required to meet the new requirements from 20/50/75/all to 20/40/60/80/all;<sup>7</sup>

b. Specified 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. Delayed the effective date for convertible vehicles until September 1, 2015;

d. Delayed the effective date for multi-stage vehicles and alterers until after completion of the phase-in for all other vehicle types, i.e., until September 1, 2016; and

e. Corrected the omissions and minor errors found in the regulatory text relating to: The earning of credits for early compliance, the SID-IIs dummy arm positioning, the definition of

limited line manufacturer, and the reinstatement of the seat adjustment procedure for the SID dummy.

## IV. Overview of Today’s Document

Today’s document denies the requests to revise the SID-IIs pelvic criterion and to exclude vehicles manufactured in more than one stage from the pole test. This rule grants several suggestions to clarify or revise aspects of the test procedures relating to, among other matters: Vehicle set-up (adjusting the non-struck side seat; adjusting head restraints, shoulder belt anchorages, and adjustable steering wheels, clarifying the vehicle test attitude tolerance); test dummy set-up (positioning the SID-IIs; removing redundant foot positioning procedures); and corrections (e.g., ES-2re filter class designation; exclusion of rear seats that cannot accommodate the SID in the MDB test during the phase-in period; FMVSS No. 301 and FMVSS No. 305 test dummy applications). In addition, in response to a July 23, 2008 petition for reconsideration from the Alliance, this document also makes clear that the upgraded MDB test does not apply to convertibles manufactured before September 1, 2015. For the reasons explained in this preamble, all other requests made in the petitions for reconsideration of the September 11, 2007 final rule to which we have not previously responded are denied.

## V. Response to Petitions

### a. SID-IIs Pelvic Criterion

The September 11, 2007 final rule adopted injury criteria for the ES-2re and the SID-IIs. For the ES-2re, the final rule adopted a 6,000 N pubic load criterion. The agency estimated that this criterion corresponded to a 25 percent risk of AIS 3+ pelvic fracture to a 45-year-old male occupant involved in a side crash. For the SID-IIs, the agency adopted a 5,525 N pelvic injury criterion limit for the sum of iliac and acetabular forces measured by the dummy. The agency estimated that the criterion corresponded to a 25 percent risk of AIS 2+ pelvic fracture to a 56-year-old small female occupant involved in a side crash.

In its petition, the Alliance asked that the SID-IIs pelvic injury criterion be changed from 5,525 N to 8,550 N. It stated that an 8,550 N criterion corresponds to a 25 percent risk of AIS 3+ pelvis injury and would align the pelvic injury risk with the AIS 3+ level set by NHTSA for the ES-2re. The petitioner further suggested that a 5,525 N criterion overemphasizes pelvic protection, which could result in designs that overload the thorax. The

<sup>6</sup> At the time of the petition, the Alliance was made up of BMW group, Chrysler LLC, Ford Motor Company, General Motors, Mazda, Mitsubishi Motors, Porsche, Toyota, and Volkswagen.

<sup>7</sup> All vehicles must meet the requirements without the use of advance credits.

petitioner suggested that manufacturers should be provided leeway to balance the loading to various parts of the body to prevent any single part from being overloaded.

In addition, the Alliance suggested rewording the pelvic injury criterion to state that the combined pelvis force in the SID-IIs must correspond to a pubic symphysis force of 4,280 N. According to the petitioner, since typically the external load is twice that measured at the pubic symphysis, a pubic symphysis load of 4,280 N is associated with a combined pelvis load of 8,550 N. Alternatively, the Alliance suggested that separate injury criteria for the iliac wing and the acetabulum be utilized for the SID-IIs pelvic injury criteria. The Alliance proposed a force limit of 5,000 N for both.

*Agency Response:* NHTSA is denying the Alliance petition to change the pelvic injury criterion to 8,550 N. Although the ES-2re criterion corresponds to a 25% risk of AIS 3+ injury, there are several reasons for having the SID-IIs injury risk level be set at AIS 2+ rather than AIS 3+.

First, we believe that the data estimating injury risk at the AIS 2+ level is more biomechanically reliable than at the AIS 3+ level. The agency established the SID-IIs criterion at a 25% risk level for AIS 2+ injuries<sup>8</sup> based on available biomechanical test data from Bouquet *et al.*,<sup>9</sup> Zhu *et al.*,<sup>10</sup> and Cavanaugh *et al.*<sup>11</sup> NHTSA found inconsistencies in the researchers' coding of AIS 2 and 3+ pelvic injuries using the 1990 Abbreviated Injury Scale. Because of these inconsistencies, the agency determined that it would be preferable to use AIS 2+ injury risk to establish criteria for the SID-IIs. The agency considered using the AIS 2+ injury risk for the ES-2re as well, but did not adopt the AIS 2+ risk level at the time because an AIS 2+ pelvic injury criterion for the ES-2re would have been 3,250 N. An

<sup>8</sup>Kuppa, S., Injury Criteria for Side Impact Dummies, 2007, Docket No. NHTSA-2007-29134-0001, <http://www.regulations.gov/fdmspublic/component/main>.

<sup>9</sup>Bouquet, R., Ramet, M., Bermond, F., Vyes, C. Pelvic Human Response to Lateral Impact, 16th International Technical Conference on the Enhanced Safety of Vehicles, Paper No. 98-S7-W-16, National Highway Traffic Safety Administration, Windsor, Canada, 1998.

<sup>10</sup>Zhu, J., Cavanaugh, J., King, A., Pelvic Biomechanical Response and Padding Benefits in Side Impact Based on a Cadaveric Test Series, SAE Paper No. 933128, 37th Stapp Car Crash Conference, 1993.

<sup>11</sup>Cavanaugh, J., Walilko, T., Malhotra, A., Zhu, Y., King, A., Biomechanical Response and Injury Tolerance of the Pelvis in Twelve Sled Side Impacts, Proc. of the Thirty-Fourth Stapp Car Crash Conference, SAE Paper No. 902305, Society of Automotive Engineers, Warrendale, PA, 1990.

ES-2re pelvic injury criterion of 6,000 N was used internationally for the ES-2 dummy and not enough was known about the practicability and other implications of requiring manufacturers to meet a criterion that was approximately twice as stringent as the criteria used internationally. It was thus decided that the ES-2re pelvic injury criterion should remain at the AIS 3+ level, but that the injury risk level for the SID-IIs pelvic injury criterion would be at the AIS 2+ level.

Further, in establishing the SID-IIs criteria, the agency normalized the pelvic force data from the Bouquet pelvic impact tests to that of a small female weighing 48 kg (105 lb). The agency also adjusted the risk curve to that for a 56-year-old, since that was the average age of seriously injured occupants of a height less than 163 cm (5 feet 4 inches) involved in side crashes. 72 FR at 51944, see also, "Injury Criteria for Side Impact Dummies," NHTSA Docket 17694. There was a significant amount of research indicating that pelvic injuries to older people were associated with increased mortality. O'Brien *et al.*<sup>12</sup> and Henry *et al.*<sup>13</sup> examined patients who sustained a pelvic fracture during a 5-year period and found that patients 55 years and older were more likely to sustain a lateral compression fracture pattern and had a higher frequency of mortality due to the injury than the younger patients (<55 years old). Thus, the 5,525 N sum of acetabular and iliac force corresponded to a 25% risk of AIS 2+ injury, reflecting the reduced bone strength in and a lower pelvic injury tolerance of older women.

With regard to the Alliance's request to specify the SID-IIs pelvic injury criterion with respect to the pubic force, we are denying that request. Specifying a criterion limit of 4,280 N on the SID-IIs pubic load measuring device was not proposed in the NPRM or explored in the final rule, so the public has not had an opportunity to comment on the suggested criterion and the agency has not had the benefit of those comments. Furthermore, the Alliance's assertion that the external load is twice that measured at the pubic symphysis of the SID-IIs is not supported by the SID-IIs test data it submitted to the agency ("Injury Criteria for Side Impact

<sup>12</sup>O'Brien, D., Luchette, F., Pereira, S., Lim, E., Seeskin, C., James, L., Miller, S., Davis, K., Hurst, J., Johannigman, J., Frame, S. (2002) Pelvic Fracture in the Elderly is Associated with Increased Mortality, Surgery, Volume 132, pp. 710-715.

<sup>13</sup>Henry, S., Pollack, A., Jones, A., Boswell, S., Scalet, T. (2002) Pelvic Fracture in Geriatric Patients: A distinct Clinical Entity, Journal of Trauma, Volume 53, No. 1, pp. 15-20.

Dummies," NHTSA Docket 17694).<sup>14</sup> In the Alliance-submitted data, the external load was approximately 8.7 to 28.6 times the load measured at the pubic symphysis. Further, we believe that the pubic load cell for the SID-IIs is limited in its capacity to measure a load of 4,280 N because the attachment sites are too rigid. A design change to the dummy is likely needed to have a pubic load criterion for the SID-IIs, and the petitioner has not demonstrated justification to undertake this change.

We have also decided to deny the petitioner's request to create separate injury threshold levels of 5,000 N for the iliac and acetabular load cells. The test data used to develop the AIS 2+ injury risk curves for the pelvis measured the total force applied to the pelvis (Cavanaugh), as opposed to measuring separate loads on the iliac and acetabulum. The injuries resulting from the total applied pelvic force included a variety of pelvic injuries observed in real world crashes: Pubic rami fractures, sacro iliac joint fractures, iliac wing fractures, and ischio pubic branch fractures (Cavanaugh and Bouquet).<sup>15</sup> The AIS 2+ injury risk curves that were independently developed using the Cavanaugh and Bouquet test data were nearly identical, demonstrating that the total pelvic force is a good predictor of a variety of pelvic injuries. The sum of iliac force and acetabular force provides a better estimate of the total load on the pelvis than the Alliance's approach, and consequently, provides better injury prediction for different type of pelvic injuries. For this reason, the sum of iliac and acetabular loads was used for injury prediction, and adopted in the final rule. The Alliance provided no analysis to support its alternative.<sup>16</sup>

<sup>14</sup>The ratio of the sum of acetabular and iliac forces of the SID-IIs and the applied force on the cadaver (normalized to that of a 5th percentile female) from the paired Bouquet cadaver tests appears to be dependent on the impact velocity. Considering only the impacts at 10 to 12 m/s, the average ratio of SID-IIs measured total pelvic force to the cadaver applied force is 1.21.

<sup>15</sup>Fractures due to lateral loading can occur at several locations on the pelvic ring, including the pubic rami (pubic rami fractures are typically the first that occur, as the pubic rami is the weak link in the pelvis), pubic symphysis, iliac wing, sacro-iliac junction, and acetabulum. Moreover, the load paths through the pelvis in lateral impacts are complex: loading through the trochanteron can result in fractures at the sacro-iliac joint; loading through the iliac wing can cause pubic rami fractures.

<sup>16</sup>We also note that the 5,525 N injury criterion selected by the agency for the SID-IIs is consistent with that used by the Insurance Institute for Highway Safety (IIHS) in its side impact consumer information program, whereas the petitioner's suggested criterion of 8,550 N is not. IIHS ranks vehicles based on performance when impacted perpendicularly by a moving barrier at about 50 km/h. IIHS uses a maximum limit of 5,100 kN for

Data from recent pole tests we conducted in support of NHTSA's New Car Assessment Program (NCAP) illustrate the practicability of meeting the SID-IIs pelvic injury criterion. We

tested six vehicles that were in conformance with the voluntary agreement made by auto manufacturers<sup>17</sup> that had been characterized as "good" performers in

the IIHS rating program.<sup>18</sup> Of the six vehicles tested, the 2006 VW Passat and 2006 Subaru Impreza met the pelvic force requirements.<sup>19</sup> The results of the testing are set forth in Table 1, below.

TABLE 1—SID-IIs OBLIQUE POLE TESTS WITH VEHICLES RATED "GOOD" BY IIHS

Vehicles	SAB type	5th Female IARV				
		HIC36	Thorax/rib defl. (mm)	Abdominal defl. (mm)	Lower spine (Gs)	Pelvis force (N)
		1000	38*	45*	82	5525
2007 Honda Pilot .....	Curtain + Torso .....	3464	48	49	68	6649
2007 Nissan Quest .....	Curtain .....	5694	50	56	79	5786
2007 Ford Escape .....	Curtain + Torso .....	407	65	36	65	6515
2006 VW Passat .....	Curtain + Torso .....	323	23	32	40	3778
2006 Subaru Impreza .....	Combo .....	184	51	38	58	4377
2007 Toyota Avalon .....	Curtain + Torso .....	642	28	38	62	6672

\*Note: Injury measurements for reference only; not required in FMVSS No. 214.

Not only did the 2006 VW Passat and the 2006 Subaru Impreza meet the pelvic force limit, but both vehicles met the lower spine and head requirements as well.<sup>20</sup> The VW Passat also had very low thoracic and abdominal deflection measurements. The performance of the VW Passat illustrates the feasibility of protecting all body regions at the FMVSS No. 214 levels without overloading the thorax or any other part of the occupant. With the additional lead time and longer phase-in of the upgraded FMVSS No. 214 requirements provided by the June 2008 final rule, manufacturers will have sufficient time to design the necessary countermeasures to meet the pelvic criteria established in the September 11, 2007 final rule.

*b. Multi-Stage Vehicles and Partitioned Vehicles*

In the September 2007 final rule, NHTSA decided not to exclude vehicles manufactured in two or more stages equipped with a cargo carrying, load bearing or work-performing body or equipment from the pole test requirements, as suggested by NTEA's comment on the NPRM. 72 FR at 51937.

The agency decided that the exclusion was unwarranted; there was not sufficient reason to deny the occupants of the vehicles the life-saving benefits of head and enhanced thorax protection provided by side air bags. (The Final Regulatory Impact Analysis estimated those benefits to be a 24 percent reduction in fatality risk for nearside occupants by side air bags and an estimated 14 percent reduction in fatality risk by torso bags alone. See Docket No. NHTSA-29134.)

We believed that many incomplete vehicle manufacturers (which are typically large vehicle manufacturers, such as GM and Ford) will accommodate the needs of final-stage manufacturers, since the incomplete vehicles they provide would typically have a significant portion of the occupant compartment completed, with seat- or roof-mounted head/thorax air bag systems already installed and would be accompanied by a workable and reasonable incomplete vehicle document (IVD). NHTSA determined that, by using the IVD, final-stage manufacturers would be able to rely on

the incomplete vehicle manufacturer's certification and pass it through to certify the completed vehicle. 72 FR at 51937.

Under NHTSA's regulations,<sup>21</sup> the incomplete vehicle manufacturer must provide an IVD with each incomplete vehicle it provides to the final-stage manufacturer. The IVD requirements were thoroughly explained in a February 14, 2005, final rule on certification responsibilities of manufacturers of vehicles built in two or more stages and altered vehicles<sup>22</sup> and in NHTSA's May 15, 2006, final rule responding to NTEA's petition for reconsideration of the rule.<sup>23</sup> As explained in those documents, an IVD details, with varying degrees of specificity, the types of future manufacturing contemplated by the incomplete vehicle manufacturer and must provide, for each applicable safety standard, one of three statements that a subsequent manufacturer can rely on when certifying compliance of the vehicle, as finally manufactured, to some or all of all applicable FMVSS.

"good" vehicles. Vehicles with a combined acetabulum and ilium force greater than 7,100 N receive a "poor" injury rating by IIHS. The Alliance's suggested criterion of 8,550 N would be in the poor category.

<sup>17</sup> On December 4, 2003, the Alliance, the Association of International Automobile Manufacturers (AIAM), and 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), and Docket NHTSA-2003-14623-13.

<sup>18</sup> IIHS's side impact consumer information program ranks vehicles based on performance when

impacted perpendicularly by a moving barrier at about 50 km/h. [http://www.iihs.org/ratings/side\\_test\\_info.html](http://www.iihs.org/ratings/side_test_info.html).

<sup>19</sup> This series of tests with the 5th percentile female dummy were conducted with the iliac wing "material #2" specified in the December 2006 SID-IIs final rule. The SID-IIs final rule to address petitions for reconsideration specifies performance criteria that allow for use of a stiffer "material #3" for the iliac wing. Material #3 will not increase the total pelvic force appreciably from that of the SID-IIs iliac wings used for the 2004-2005 MY vehicle tests listed in the 2007 final rule. When comparing material #3 responses to material #2 responses, it is estimated the material #3 will result in a 12% increase in the iliac force in the qualification environment and correspond to a 5% increase in total pelvis force in these vehicle tests. The VW

Passat and Subaru Impreza are still expected to meet the pelvic force IARV with the new material.

<sup>20</sup> We note that all six vehicles were well below the 8,550 N pelvic force limit proposed by the Alliance and consequently, no changes would need to be made to any of these vehicles to meet its suggested criterion.

<sup>21</sup> 49 CFR part 568, "Vehicles Manufactured in Two or More Stages—All Incomplete, Intermediate and Final-Stage Manufacturers of Vehicles Manufactured in Two or More Stages." Section § 568.4 requires the incomplete vehicle manufacture to furnish the IVD at or before the time of delivery.

<sup>22</sup> 70 FR 7414, Docket 99-5673.

<sup>23</sup> 71 FR 28168, May 15, 2008, Docket 2006-24664.

The final-stage manufacturer has to meet the conditions of the IVD in producing the final vehicle.

The first type of statement contained by an IVD is one referred to in 49 CFR 568.4(a)(7) as a "Type 1 statement." These statements indicate, with respect to a particular safety standard, that the vehicle, when completed, will conform to the standard if no alterations are made in identified components of the incomplete vehicle. This representation is most often made with respect to chassis-cabs, a type of incomplete vehicle that has a completed occupant compartment. 49 CFR 567.3.

The second type of statement is a "Type 2 statement" (§ 568.4(a)(7)). This is a statement of specific conditions of final manufacture under which the completed vehicle will conform to a particular standard or set of standards. This statement is applicable in those instances in which the incomplete vehicle manufacturer has provided all or a portion of the equipment needed to comply with the standard, but subsequent manufacturing might be expected to change the vehicle such that it may not comply with the standard once finally manufactured. For example, the incomplete vehicle could be equipped with a brake system that would, in many instances, enable the vehicle to comply with the applicable brake standard once the vehicle was complete, but that would not enable it to comply if the completed vehicle's weight or center of gravity height were significantly altered from those specified in the IVD.

The third type of statement, a "Type 3" statement, is one which identifies those standards for which no representation of conformity is made because conformity with the standard is not substantially affected by the design of the incomplete vehicle. A statement of this kind could be made, for example, by a manufacturer of a stripped chassis who may be unable to make any representations about conformity to any crashworthiness standards given that the incomplete vehicle does not contain an occupant compartment.

In the September 11, 2007 final rule amending FMVSS No. 214, the agency declined NTEA's suggestion to exclude the multistage vehicles it identifies from the pole test requirements. We had, and still have, every reason to expect that incomplete vehicle manufacturers will accommodate the needs of final-stage manufacturers. We believe that chassis-cab manufacturers will produce incomplete vehicles with seat- or roof-mounted head/thorax air bag systems already installed and with workable instructions on how the vehicle could

be completed to enable the final-stage manufacturer to pass-through the certification. As NHTSA stated in the September 11, 2007, final rule, "As long as the final-stage manufacturer meets the conditions of the incomplete vehicle document (and NTEA has not shown that final stage manufacturers will not be able to meet those conditions) the manufacturers may rely on the incomplete vehicle manufacturer's certification and pass it through when certifying the completed vehicle." 72 FR at 51937-51938.

Further, for final-stage manufacturers that will have to certify the compliance of the vehicle other than by using "pass-through" certification, the agency provided manufacturers until September 1, 2013, approximately six years under the September 11, 2007, final rule (which has been extended to September 1, 2016, under the June 2008 final rule), to work with incomplete vehicle manufacturers and with seat and air bag suppliers to revise current air bag systems and vehicle designs to enable them to certify to the pole test. 72 FR at 51938. The agency determined that this long period will provide enough time for final-stage manufacturers to work with incomplete vehicle manufacturers, seat manufacturers and air bag suppliers, individually or as a consortium, to develop the information to install seat-mounted systems, or other countermeasures that could be developed to meet the pole test. *Id.*

NTEA and the Alliance petitioned for reconsideration of the agency's decision on this issue. NTEA stated that "it will not be possible for chassis [incomplete vehicle] manufacturers to develop compliance strategies for this regulation that would allow multi-stage manufacturers to continue producing the range of diversified work trucks demanded by the marketplace." The petitioner believed that the side air bag system is highly complex and that "it will not be possible for the chassis manufacturers to provide a generic compliance envelope covering any significant portion of the vehicle configurations produced by today's work truck industry." In the alternative, NTEA asked that if the rule is to continue to apply to multi-stage vehicles, the effective date for multi-stage produced vehicles with a gross vehicle weight rating greater than 8,500 pounds be extended to September 1, 2014 (one year later than the effective date for single stage produced vehicles).

The Alliance petitioned to exclude multi-stage and altered vehicles from the pole test requirements because, it asserted, "the extensive variation of

possible changes that can be made to vehicles that are built in multiple stages, including the addition of partitions, will affect the performance of original equipment manufacturers' (OEMs') side airbags [sic] systems (side airbags, curtains, sensing systems, and interior and structural components)." The petitioner stated: "Each multi-stage vehicle developed from a single incomplete vehicle could potentially require a unique side airbag system, which could require a unique development process for each system (development process meaning iterative crash testing for occupant response and side sensor calibration development)." The Alliance further stated that, "OEMs will not be in a position to expend engineering resources to develop unique side airbag systems in addition to the systems developed for the associated completed vehicles" and that multi-stage manufacturers "will not necessarily be in a position to collaborate with OEMs and/or restraint suppliers to develop unique systems."

#### Agency Response

The petitioners' contentions that it would be impossible for incomplete vehicle manufacturers to develop strategies that would allow multi-stage manufacturers to continue producing diversified work trucks are overly general and wholly unsupported. No information was submitted with the petitions substantiating the petitioners' views that final-stage manufacturers will not be able to certify their vehicles to the pole test. No information was provided to show that incomplete vehicle manufacturers will find pass-through certification unachievable. NHTSA cannot find a basis on which to conclude that final-stage manufacturers could not adhere to the instructions of the IVD, when final-stage manufacturers are currently certifying the compliance of their vehicles with FMVSS No. 214, and with FMVSS No. 208, "Occupant crash protection," (frontal air bag technology), FMVSS No. 301, "Fuel system integrity," and other complex safety standards that include crash testing vehicles as part of the agency's compliance tests.

We believe that it will be feasible for final-stage manufacturers to certify their vehicles to the pole test using the IVD provided by the incomplete vehicle manufacturer. The IVD framework was carefully analyzed in the May 15, 2006, final rule (71 FR 28168) that responded to NTEA's petition for reconsideration of the February 14, 2005, rule amending the certification requirements for multi-stage vehicle manufacturers. The agency examined a GM CK Chassis-Cab IVD

that NTEA had appended to its petition for reconsideration as an example of purported deficiencies in IVDs generally (71 FR at 28177). To assess the validity of NTEA's contentions, NHTSA carefully examined the certification statements in the GM IVD that NTEA identified as inadequate. NHTSA determined each of NTEA's claims to be unsubstantiated.

The agency found that the IVD was entirely workable as it related to each of the FMVSSs, including FMVSS No. 214. NTEA had contended that there was no meaningful pass-through opportunity for FMVSS No. 214's crush resistance requirements and the standard's moving deformable barrier test. The GM IVD stated that the vehicle will comply with the requirements of FMVSS No. 214 as long as no alterations were made that affect the properties, environment, or vital spatial clearances of various components and systems in the vehicle, including the air bag system, the door assemblies, hinges, and latches, the door pillars, and the seat and seat belt anchorages and assemblies. The GM IVD was practicable, providing a reasonable envelope within which the final stage manufacturer could complete the vehicle and certify it to FMVSS No. 214. NHTSA determined that (71 FR at 28181)—

GM has designed vehicles, including the doors and associated structural members, such as pillars, to withstand various forces applied to the side of the vehicle. Ordinarily, GM would have tested the side of a single stage pickup truck. Vehicles completed from a chassis-cab incomplete vehicle have door support structures and doors that are identical to a single stage pickup truck. Unless the final-stage manufacturer makes alterations to the door-related structures and parts enumerated in the IVD, pass-through certification should be available. \* \* \* It would be unreasonable to expect GM or any other incomplete vehicle manufacturer to provide pass-through certification with FMVSS 214, which is directly contingent on the engineering and performance of the systems set forth in the IVD, without a limitation on alteration of those systems.

The agency concluded that a final-stage manufacturer can readily complete its vehicle by mounting a body onto an incomplete GM vehicle, such as a chassis cab, without making modifications that would place it outside the pass-through certification provisions of GM's IVD. *Id.*

The conclusions of the May 15, 2006 final rule concerning the static door strength and the MDB test of FMVSS No. 214 are relevant to today's rulemaking and apply to the issues raised by the petitioners. We anticipate that the IVDs provided by incomplete vehicle manufacturers will offer

compliance strategies to final-stage manufacturers for meeting the static door strength and MDB requirements of FMVSS No. 214 just as the IVDs do today, by including statements that the vehicle will comply with the FMVSS No. 214 requirements as long as no alterations are made that affect the properties, environment, or vital spatial clearances of various components and systems in the vehicle, such as the door assemblies, hinges, and latches, the door pillars, and the seat and seat belt anchorages and assemblies. These conditions would be reasonable and logical, since the side crash protection provided by the door assemblies, hinges, latches, structure and padding, and by the seat and seat belt system could be affected if the properties, environment, or vital spatial clearances were modified by a final-stage manufacturer. These conditions for meeting the static door strength and MDB requirements of FMVSS No. 214 can readily be met by final-stage manufacturers, just as they are met today, by making sure that the vehicles are completed without modifying the incomplete vehicle's door assemblies, hinges, and latches, the door structure, pillars, and padding, and the seat and seat belt anchorages and assemblies.

With regard to the pole test requirements which were newly added to FMVSS No. 214 by the September 11, 2007 final rule, the findings of the May 15, 2006 final rule are informative and relevant to this matter as well. The May 15, 2006 final rule discussed NTEA's complaint about the pass-through certification in the GM IVD pertaining to FMVSS No. 208. This discussion is instructive today because both FMVSS No. 208 and the pole test of FMVSS No. 214 specify vehicle crashworthiness requirements in terms of forces and accelerations measured on test dummies in crash tests and by specifying performance requirements that are met by air bags.

As discussed in the May 15, 2006 final rule, the GM IVD provided pass-through certification for FMVSS No. 208 for vehicles, provided that the maximum unloaded vehicle weight specified by GM is not exceeded and no alterations are made that affect the properties, location, or vital spatial clearances of various components, including the number, location and configuration of designated seating positions and seat belt assemblies, the instrument panel, steering wheel, air bag modules and coverings, the Sensor Diagnostic Module (SDM) (which is involved in triggering air bag deployment) and associated wiring, air bag labels, the vehicle frame and

structural members, sheet metal, and the engine compartment, that would result in a difference in the modified vehicle's deceleration if it were subject to barrier impact tests under FMVSS No. 208. 71 FR at 28181.

NHTSA found these restrictions in GM's Type 1 IVD to be logical and consistent with a systematic approach to occupant crash protection employed by manufacturers. 71 FR at 28182. Regarding GM's restriction on unloaded vehicle weight and GVWR, vehicle weight is an essential component of crashworthiness standard certification. If the vehicle, as completed and loaded, exceeded the maximum weight for which the incomplete vehicle manufacturer provided pass-through certification (usually based on a crash test the incomplete vehicle manufacturer performed), it would not be reasonable to expect the GM's certification to apply because the excess vehicle weight could cause different and excessive forces and accelerations on crash dummies. Final-stage manufacturers can readily work within weight requirements by taking care to purchase the appropriate incomplete vehicle chassis for the use to which the vehicle will be put.

NHTSA also found not unreasonable the restrictions in the GM IVD on alterations that interfere with the seating positions, seat belts, instrument panel and air bags, SDM, and vehicle frame and body in a way that would result in a difference from the modified vehicle's deceleration if it were subjected to an FMVSS No. 208 barrier test. The restrictions were reasonable because incomplete vehicle manufacturers typically provide pass-through certification based on tests performed on a pickup truck with stock seats provided by the incomplete vehicle manufacturer and test dummies in those seating positions, as specified by FMVSS No. 208. If the seating positions were different, the test results as recorded on the dummies likely would be different. NHTSA determined that it was reasonable that GM should not be held to anticipate performance, as measured on dummies, in these circumstances. NHTSA also found it reasonable that GM would not provide pass-through certification if the seat belt system were changed.

The agency further discussed the IVD's statements relating to FMVSS No. 208, as follows (71 FR 28182):

Other requirements relate to the air bags and their control unit. GM could not be expected to provide pass-through certification if the final-stage manufacturer modified these items.



Finally, the IVD provides that various structural and sheet metal components cannot be modified if the modifications would result in a difference in the modified vehicle's deceleration in a barrier test under FMVSS No. 208. A basic concept in designing vehicles is to design vehicle structures that minimize the amount of injury-causing crash energy that reaches the occupants. To accomplish this, in part, manufacturers design into the vehicle structural zones that collapse and absorb crash energy. A crashworthy vehicle is designed to deform according to a deceleration-time response, or crash pulse. These vary among vehicles. The frontal structure largely controls the deceleration profile. Ultimately, the deceleration response of the vehicle affects the response experienced by the test dummies, as gauged by regulatory injury criteria such as the thoracic acceleration of a test dummy. Modifications by a final-stage manufacturer to the frame, sheet metal and other components identified in GM's IVD may change the vehicle's deceleration and its performance in a crash test, including measurements on test dummies. GM could not reasonably be expected to assume certification responsibility in these circumstances. *But the final-stage manufacturer could readily satisfy the conditions of the IVD by not modifying the identified components of the incomplete vehicle when it adds equipment to the chassis of the vehicle. (Id., emphasis added.)*

This discussion applies equally to the IVDs that incomplete vehicle manufacturers will provide concerning the FMVSS No. 214 pole test. We anticipate that the IVD will provide pass-through certification for FMVSS No. 214 for vehicles provided that weight restrictions are not exceeded, and the vehicle is not modified so as to affect the properties, location, or vital spatial clearances of certain components. These components include the location and configuration of the driver and outboard passenger seating positions, the seat belts installed at those seating positions, the side door structure and door assemblies, and the side air bag system. A side air bag system includes the side air bag modules, inflator, sensors triggering air bag deployment, and associated wiring.

A final-stage manufacturer will be able to satisfy the conditions of the IVD in completing the vehicle and certifying it to FMVSS No. 214, just as it is able to work with the IVD in certifying completed vehicles to FMVSS No. 208. The final-stage manufacturer can readily adhere to the weight requirements of the IVD by following the instruction of the IVD. Further, when completing a work vehicle, a final-stage manufacturer typically does not modify the vehicle door trim, side structure or energy absorbing material for the front outboard occupants, and can complete the vehicle

without modifying the side air bag system. Because of this, the Alliance's contention that "unique" side air bag systems would have to be developed for "each multi-stage vehicle" developed from a single incomplete vehicle is not substantiated. NHTSA cannot concur with that estimation, based on the information available. Accordingly, we find no basis for excluding all cargo carrying, load bearing and work-performing vehicles manufactured in more than one stage from the pole test.

The petitioners were particularly focused on partitions and bulkheads that final-stage manufacturers install in work vehicles. NTEA stated that these components "protect the driver from loose cargo in the back of the vehicle." The Alliance stated that the addition of partitions will affect the performance of original equipment manufacturers' side impact air bag systems (SIABs).

The September 11, 2007 final rule did not exclude partition-equipped vehicles from the pole test requirements. NHTSA determined that an exclusion of partition-equipped vehicles, or of vehicles with bulkheads, was overly broad on its face and unwarranted when considering the different countermeasures that may be designed to meet the requirements. These possible countermeasures included the use of seat-mounted or door-mounted head/thorax air bag systems, the development of side air curtain technology that involves designs other than tethering the curtain to the A- and C-pillars. 72 FR at 51936. Further, the final rule provided an extra year of lead time to accommodate any necessary manufacturing changes that have to be made to their vehicles. NHTSA stated: "Between [September 11, 2007] and that date, [alterers and final-stage manufacturers] can work with manufacturers of incomplete and complete vehicles to develop seat-mounted SIABs and other technologies that would enable them to install the life-saving devices in vehicles that have partitions." *Id.*

The petitioners did not provide information substantiating its claim that compliance is not practicable for vehicles with partitions or bulkheads. To the contrary, market-based solutions are emerging now. The agency is aware of the availability of partitions<sup>24</sup> in police vehicles that are advertised as compatible with side curtain air bags. For some partition designs, sufficient

space is provided to allow for the inflation of the air curtain. If a full width barrier is desired, new air bag systems are emerging to meet that need. GM has announced it will offer a police vehicle with optional front-seat-only side curtain air bags that allow a full-width rear-seat barrier.<sup>25</sup> An air curtain could be tethered from the A- to B-pillar and be compatible with a partition or bulkhead. NHTSA is aware of another manufacturer that intends to build a police car with side curtains and a partition.<sup>26</sup> Further, as explained by the agency in the September 11, 2007 final rule, a head/thorax combination air bag or an air bag that deploys upwards from the window sill<sup>27</sup> could be used. With the lead time provided by the final rule, we expect that more solutions from vehicle manufacturers and aftermarket suppliers will be developed for vehicles with partitions or bulkheads.

#### Collaboration

There has been no information presented that corroborates the Alliance's assertion that multi-stage manufacturers could not collaborate with OEMs and/or restraint suppliers to develop side air bag systems that would work with their vehicles. The May 15, 2006 final rule discusses at length the cooperative relationships that have existed for years between incomplete and final-stage manufacturers. *See, e.g.,* 71 FR at 28183–28185. Final-stage manufacturer are motor vehicle manufacturers, and they have for many years borne the responsibility under the National Traffic and Motor Vehicle Safety Act to ensure that their vehicles are certified to the FMVSSs. For many years, they have certified their vehicles to a gamut of crash test and other standards using the IVD and their engineering abilities. They have worked with incomplete vehicle manufacturers and suppliers, individually or as part of a consortium, and have the capabilities to continue to do so to develop strategies needed to certify their vehicles to the pole test.

Further, as noted above, in the June 9, 2008, final rule responding to petitions for reconsideration of the September 11,

<sup>25</sup> <http://media.gm.com/servlet/GatewayServlet?target=http://image.emerald.gm.com/gmnews/viewmonthlyreleasedetail.do?domain=74&docid=57260>.

<sup>26</sup> <http://www.carbonmotors.com/pdf/comparison.pdf>.

<sup>27</sup> A door-mounted inflatable curtain was introduced in the 2006 model year Volvo C70 convertible. Nissan has also indicated that a side air bag system under development for convertibles uses a seat mounted thorax air bag and a curtain air bag deployed from the door. *See* NHTSA–2007–29134–0007.1. Upwards-deploying air bags could be used in vehicles with a partition or bulkhead.

<sup>24</sup> *See* <http://www.setina.com>. Setina Manufacturing Co. markets side curtain air bag compatible police equipment partitions for the Chevrolet Impala, Suburban and Tahoe, Chrysler Aspen, Dodge Charger, Magnum and Durango and the Ford Expedition and Explorer.



2007, final rule on FMVSS No. 214, the agency extended the compliance date on which multi-stage manufacturers and alterers must certify to the pole test, providing additional time to meet the FMVSS No. 214 requirements. That final rule provided 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. This lead time provides even more lead time than the NTEA had requested (petitioner had asked that if the rule is to continue to apply to multi-stage vehicles, the effective date for multi-stage produced vehicles with a GVWR greater than 8,500 pounds be extended to September 1, 2014) and provides ample opportunity for multi-stage manufacturers and alterers to develop and implement strategies for certifying compliance with the FMVSS No. 214 pole test.

Accordingly, for the reasons provided above, we are denying the petitions to exclude vehicles produced in more than one stage, altered vehicles, and vehicles with partitions from the pole test.

### *c. Test Procedures*

#### 1. Vehicle Set Up

##### i. Positioning the Seat

##### A. Adjusting the Front Seat for the 50th Percentile Male Dummies

For adjusting the front seat for both the SID-IIIs and the ES-2re dummies, the final rule adopted the seat positioning procedure used in FMVSS No. 208 for the 5th percentile female Hybrid III dummy (for the ES-2re 50th percentile adult male dummy, the only alteration made was to specify the mid-track position as opposed to full-forward). That seat positioning procedure from FMVSS No. 208 was adopted for use in FMVSS No. 214 because it was more detailed than any other procedure used in the FMVSSs and addressed the wide variety of seat configurations and multi-way power seat adjustments available in vehicles.

In its petition, the Alliance requested that the seat adjustment method for the ES-2re dummy be the same as that in FMVSS No. 208 for the Hybrid III 50th percentile male dummy. It stated it is unclear why NHTSA prescribes a different seating procedure for FMVSS No. 214 than the one prescribed for FMVSS No. 208. The Alliance further noted that the seat adjustment method in FMVSS No. 214 for the SID that had been in place before the amendment resulted in a different mid-point location than the location obtained

under the amended FMVSS No. 214 procedure. The seating positioning procedure for the SID (S6.3) used to state, "Adjustable seats are placed in the adjustment position midway between the forward most and rearmost position \* \* \*," whereas S8.3.1.3.2 of the final rule states, "Using only the control that primarily moves the seat fore and aft, move the seat cushion reference point to the mid travel position. \* \* \*"

#### Agency Response

NHTSA is denying the Alliance's petition to change the seat positioning procedure for the ES-2re.<sup>28</sup> It is correct that the FMVSS No. 214 final rule seating procedure can place the seat, and thus the position of the ES-2re dummy, in a slightly different location compared to the FMVSS No. 208 procedure for the 50th percentile male Hybrid III.<sup>29</sup> Specifically, both the height and mid-point position of the final seat location can vary between the two procedures depending on the number of degrees of freedom designed into the seat adjustment mechanism. However, the FMVSS No. 214 seat positioning procedure takes into account the full range of motion of the seat in determining the seat's mid-point and height, which the FMVSS No. 208 procedure does not. The new procedure is more objective and repeatable than the FMVSS No. 208 procedure, given the wide variety of seat configurations and multi-way power seat adjustments available in vehicles available today. NHTSA thus considers the FMVSS No. 214 seat positioning procedure preferable to the FMVSS No. 208 procedure. As to the petitioner's suggestion that the procedures of FMVSS No. 208 and FMVSS No. 214 should be consistent, we are considering rulemaking to amend FMVSS No. 208 to adopt the FMVSS No. 214 procedure to

<sup>28</sup> The seat position concerns raised by the Alliance were not raised in the comments to the NPRM or discussed in the final rule.

<sup>29</sup> The seat adjustment procedure first adopted for the 50th percentile male SID when FMVSS No. 214 was amended to include the dynamic test requirements with the MDB (55 FR 45722) was derived from that used in FMVSS No. 208. The September 2007 FMVSS No. 214 final rule adopted a revised seat adjustment procedure for the new requirements as well as for those vehicles being certified to the pre-existing requirements with the SID during the phase-in. The June 2008 response to petitions for reconsideration reinstated the pre-existing seat adjustment procedure when testing with the SID during the phase-in, in response to a petition from the Alliance. In that document, we acknowledged the new seat adjustment procedures can place the SID at a slightly different location in the vehicle when compared to the pre-existing procedure and that it was not the agency's intent to change the certification responsibilities of manufacturers that had certified vehicles using the SID.

position the seats. (With regard to the point about positioning the SID, the June 9, 2008 document reinstated the pre-existing seat adjustment procedure for use with the SID in the MDB test until the phase-in of the new requirements is completed. 73 FR at 32480.)

##### B. Location of Seat on the Non-Impact Side

The MDB and pole test procedures in the final rule state (S8.3.1.3 and S10.3.2.3, respectively): "If the passenger seat does not adjust independently of the driver seat, the driver seat shall control the final position of the passenger seat." However, if the passenger seat does adjust independently of the driver seat, the final rule was silent on specifying a seat positioning procedure for the non-impacted side of the vehicle.

The Alliance noted that the agency's FMVSS No. 214 Test Procedure manual with the SID dummy<sup>30</sup> has stated: "Adjustable seats (on the impact and non-impact side) are placed in the adjustment position midway between the forwardmost and rearmost position \* \* \*." That is, the passenger seat is in the same fore/aft location as the struck-side seat. The Alliance recommended positioning the seat on the non-impacted side at the same fore/aft location as the struck-side seat.

#### Agency Response

We agree with the Alliance that the seat on the non-struck side should be aligned with the impacted seat, with regard to two adjacent seats with the ability to adjust independently of each other.

##### C. Seat Cushion Reference Point

In the ES-2re seating procedure, the seat cushion reference point (SCRIP) is located: "\* \* \* on the outboard side of the seat cushion at a horizontal distance between 150 mm (5.9 in) and 250 mm (9.8 in) from the front edge of the seat \* \* \*." To set the height of the SCRIP, section S8.3.1.3.3 of the final rule states: "\* \* \* set the height of the seat cushion reference point to the minimum height, with the seat cushion reference line angle set as closely as possible to the angle determined in S8.3.1.3.1."

In its petition, the Alliance said that the seat cushion height adjustment could result in differences in the reference line angle, depending on whether the minimum height was set or the angle was maintained. The Alliance noted that a similar situation exists for seat adjustment to the mid height in

<sup>30</sup> (TP214D-08 Part I); K: Adjustable Seats.

S10.3.2.3.3. Therefore, the Alliance recommended that NHTSA specify seat cushion height and angle for conditions under which the SCRP should be determined. The petitioner recommended that priority be given to seat cushion height.

#### Agency Response

We are denying this request. The SCRP is a guide in locating the seat's mid-track position and setting the seat cushion reference line. The SCRP is simply a reference point located on the seat cushion reference line and does not affect the final location of the seat. In the seating procedure, the angle of the seat cushion reference line is used to define the mid-angle position of the seat cushion adjustability range.<sup>31</sup> Once the mid-angle position is defined, while maintaining that angle, the seat is placed in its lowest possible height position. Using the SCRP as a reference point, the seat is then located at the mid-track position. The priority in the seat adjustment procedure is given to seat cushion angle rather than height. If seat height were given priority over seat cushion angle, the process would be similar to the current FMVSS No. 208 procedure, which is not as clear. The seat adjustment procedure has been used with the 5th percentile female Hybrid III dummy in FMVSS No. 208 by both the agency and industry, and we are not aware of any issues associated with it to determine seat location.

#### ii. Adjustable Head Restraint Position for the SID-IIs

The final rule requires that the adjustable head restraint be in the lowest and most forward position for the SID-IIs in the pole test. The Alliance recommended adding clarification as to what constitutes the lowest possible range for the head restraint. The petitioner stated that it considers the adjustment positions to be determined by detents on the support bars of the head restraint and that the lowest position may not necessarily be the lowest possible position.

#### Agency Response

NHTSA agrees with the Alliance that the potential exists where the lowest possible detent position may not be the lowest possible position for the head restraint adjustment. It was the agency's

<sup>31</sup> For some adjustable seats, the seat bottom cushion can pivot up and down in an arc. The seat cushion reference line is used to identify the full range of travel the seat cushion can pivot in the arc. Once the minimum and maximum positions of travel for the seat cushion reference line have been located, the reference line is then placed at the middle of the range of motion.

intent to position the head restraint in contact with the top of the seat back as the seat back may provide a "stop" for the downward adjustment of the head restraint, just as a detent does at other positions of adjustment. To further clarify the position of the head restraint when testing with the SID-IIs dummy, we are revising the standard to state that if it is possible to achieve a position lower than that associated with the detent range, the head restraint will be set to its lowest possible position. The change is consistent with the positioning head restraints for testing in FMVSS No. 202, "Head restraints."

#### iii. Adjustable Seat Belt Shoulder Anchor

The final rule specified that, when testing with the 50th percentile adult male dummies, adjustable belt anchorages are placed at the mid-adjustment position (for the SID, see S12.1 of the regulatory text, and for the ES-2re, S12.2.1).

The Alliance requested the agency use the FMVSS No. 208 procedure, which specifies that the shoulder belt anchorage is placed at the manufacturer's design position. The Alliance stated it does not understand the reason for the difference between FMVSS No. 214 and FMVSS No. 208. Honda stated that the seat belt shoulder anchorage adjustment can be unclear when an adjustable shoulder anchorage does not have a true mid-position and requested NHTSA to clarify the specification.

#### Agency Response

NHTSA agrees with the Alliance's request to use the specification in FMVSS No. 208 for seat belt anchorage positioning for the 50th percentile male dummy. From our experience with FMVSS No. 208, the adjustable seat belt anchorage is generally specified by the manufacturer at the mid-position, or one detent above or below. We also believe that the specification will address Honda's concern, as the manufacturer will specify the seat belt anchorage position. As with our FMVSS No. 208 compliance test program, when testing to FMVSS No. 214 the agency will contact the manufacturer to determine where the anchorage needs to be placed prior to a vehicle test.

#### iv. Adjustable Steering Wheels

The final rule's test procedures for the pole test specified procedures for adjusting the steering wheel (S10.5) but did not include a procedure for adjusting telescoping steering columns, while instructions for the latter were

included in the MDB test procedure (S8.4).

The Alliance and Honda requested that the agency revise the procedure of S10.5, "Adjustable steering wheel," for the pole test to be consistent with S8.4 for the MDB test.

#### Agency Response

We agree with the petitioners on the need for more specificity for adjustable steering wheels in the pole test. This was an oversight in the final rule. We are including a provision in S10.5 that states that a telescoping steering column is placed in the mid-position. If there is no mid-position, the steering wheel is moved rearward one position from the mid-position. This is consistent with S8.4 of the standard.

#### v. Impact Point Reference Line Determination

In S10.11, the standard specifies that the pole test impact reference line is located at the intersection of the vehicle exterior and a vertical plane passing through the center of gravity of the head of the dummy seated in accordance with S12 in the front outboard designated seating position. The vertical plane forms an angle of 285 (or 75) degrees with the vehicle's longitudinal centerline for the right (or left) side impact test.<sup>32</sup> Under S10.12.2, the test vehicle is propelled so that its line of forward motion forms an angle of 285 (or 75) degrees for the right (or left) side impact with the vehicle's longitudinal centerline. The impact reference line is aligned with the center line of the rigid pole surface, as viewed in the direction of vehicle motion, so that when the vehicle-to-pole contact occurs, the center line contacts the vehicle area bounded by two vertical planes parallel to and 38 mm forward and aft of the impact reference line.

The Alliance stated that because of the 75 degree impact angle, the first impact point does not correspond with the center of the pole. The petitioner believes that there is a difference of 34 mm which has to be added to the  $\pm 38$  mm tolerance provided in the final rule. Additionally, it noted that the CG position of the dummy head is not equivalent to the marking on the outer surface of the head. It noted there is a difference of either 16 mm (SID-IIs) or 17.5 mm (ES-2re) between these two points. See Figure 10 of the petition. Therefore, the Alliance asked for a "more repeatable" and "objective" definition of the impact point location,

<sup>32</sup> The angle is measured counterclockwise from the vehicle's positive X-axis as defined in S10.13 of the standard.

but provided no recommended definition in its petition or in a subsequent submission. (The Alliance stated in its petition that it would submit additional information on this issue, but did not do so.)

#### Agency Response

NHTSA is denying the request. The regulatory text for the oblique pole test is consistent with the pole-to-head alignment in FMVSS No. 201, and no repeatability or objectivity problems have arisen with regard to FMVSS No. 201.

Furthermore, we believe that the Alliance may have erroneously interpreted the language of the standard with respect to aligning the pole with the center of gravity of the dummy's head. It appears that the petitioner believes that the pole is aligned with a marker on the outer surface of the dummy's head. The regulatory text clearly states that the center of the pole is to be aligned directly with the CG of the dummy's head and not a marking that is projected perpendicular to the surface of the dummy's head. (See the Alliance's petition, Figure 10, page 27, showing the petitioner's interpretation of the impact reference line from the marker on the side surface of the dummy's head.)

In our fleet testing, we aligned the pole such that the reference line went through the measured CG of the head of the dummy. A target was placed on the dummy's head but the marker location was calculated to account for the 75 degree oblique angle to address the exact issue the Alliance identified in its petition.

#### vi. Vehicle Attitude

In the final rule's specifications for the MDB test, S8.2 states that the pre-test vehicle attitude is “\* \* \* equal to either the as delivered or fully loaded attitude or between the as delivered attitude and fully loaded attitude,  $\pm 10$  mm.”

The Alliance asked for clarification as to why the agency included a  $\pm 10$  mm tolerance to the vehicle attitude measurement prior to testing with the MDB because the attitude value is not exact. The Alliance stated that it is unclear whether NHTSA intended the  $\pm 10$  mm tolerance to apply to the full range of values or to another point such as the mid-point between the “as delivered” and “fully loaded” condition.

#### Agency Response

We agree that the specification needs to be clarified. The final rule added a  $\pm 10$  mm tolerance because we became aware, through our own testing of

vehicles, that it can be difficult to maintain the corridor between the as delivered and fully loaded attitudes because of the weight of the vehicle instrumentation (e.g., high-speed cameras, associated brackets and instrumentation umbilical lines) that are added to the vehicle prior to testing. A tolerance was added to account for the added equipment, to make it slightly easier to meet the vehicle test attitude specification. However, we meant to address the potential weight impact that added instrumentation has on the vehicle at its fully loaded condition only. To clarify the requirement, we are modifying the wording of S8.2 to state that the difference in vehicle test attitude shall not be greater than  $\pm 10$  mm from “the vehicle's fully loaded condition,” and not from “either the as delivered or fully loaded condition.” We believe this allowance will not compromise the results of the test but will allow some variation in vehicle attitude for cameras and other instrumentation. Moreover, we have also determined that the reference to the “as delivered” condition is unnecessary and should be removed. S8.2 is revised to state that the pretest attitude is equal to the fully loaded attitude  $\pm 10$  mm.

#### vii. Pole Test Pitch and Roll Definitions

S10.2, *Vehicle test attitude*, of the final rule states, inter alia: “\* \* \* The front-to-rear angle (pitch) is measured along a fixed reference on the driver's and front passenger's door sill \* \* \* The left to right angle (roll) is measured along a fixed reference point at the front and rear of the vehicle at the vehicle longitudinal center plane \* \* \*”

The Alliance believes that there might be an error in the vehicle attitude and angle measurements. The petitioner believes that the pitch reference plane should be the longitudinal center plane of the vehicle and the roll angle reference plane is measured across the vehicle width. The petitioner also requested that the agency standardize the measurement procedure of the MDB and the oblique pole test such that all measurements are made in reference to the vehicle plane defined on the test vehicle's body, directly above each wheel opening.

#### Agency Response

It appears that the Alliance may have misunderstood the definitions in the final rule. A diagram of its understanding of the final rule, showing what the Alliance believed to be the possible error, was provided in Figure 18 of the petition (page 34 of the petition). In that Figure 18, the illustrations of pitch and roll appear to

be reversed. A vehicle's pitch is the angle measured along a fixed reference line on the driver's and front passenger's door sill measuring any variation in vehicle height front-to-rear. The roll is the left to right angles measured at the front and rear of the vehicle. (These definitions of pitch and roll are used in the Test Procedure of FMVSS No. 201's pole test.)

NHTSA further believes it is not necessary to standardize the pole test attitude requirements with the MDB test. The pole test approach of directly measuring the pitch and roll angles will better facilitate and more accurately determine the vehicle's attitude for aligning the dummy's head to the pole, which is more relevant for the pole test than the MDB test. Conversely, measuring vehicle height directly is more critical in aligning the vehicle to the MDB than to the pole, and so the MDB test approach is more tailored to that test than the pitch and roll angle measurement of the pole test.

#### 2. Test Dummy Set Up

##### i. SID-IIs

##### A. Hip Point Specification

Section 12.3 of the final rule provides a sequence of steps for positioning the SID-IIs dummy involving adjustment of the legs and pelvis of the dummy.

The Alliance petitioned the agency to specify a hip point location when positioning the SID-IIs dummy in the seat since it found hip point movement in its positioning. It noted that as the dummy is adjusted throughout the steps in Section 12.3, the hip point moves in the x-direction, particularly when either the legs or pelvis is adjusted. The Alliance provided data that showed the hip point shifted 12 mm and 16 mm in the x-direction when the 5th percentile dummy was seated in the vehicle. It noted a similar situation exists in sections S12.3.4(e), (h) and (j) of FMVSS No. 214.

#### Agency Response

NHTSA is denying the petition for a pre-determined hip point position for the SID-IIs.<sup>33</sup> Through our FMVSS No. 208 compliance testing experience we found that while the hip point may slightly shift when the 5th percentile dummy is positioned in the vehicle, we also found that if the 5th percentile female dummy is forced into the seat bight in order to fit an artificial hip point, the lower legs may be off the floor. This results in an unnatural leg position that is not representative of

<sup>33</sup> This hip point specification issue was not raised in the comments to the NPRM or discussed in the final rule.

real-world occupants. This was observed when we originally adopted the 5th percentile Hybrid III dummy and seating position into FMVSS No. 208.<sup>34</sup>

Furthermore, the Alliance provided only data consisting of one data point on two vehicles. While it found that the dummy's hip point shifted 12 mm and 16 mm in the two cases, the Alliance did not show the significance the differences had on test setup repeatability (*i.e.*, whether it would always result in a 12 mm and 16 mm shift in these two vehicles). It is also not known how representative these two vehicles are of the fleet, or whether the slight shifting of the hip point position is problematic. For these reasons, we are denying the request to specify an "official" hip point position.

#### B. Knee and Ankle Spacing

The final rule states the following regarding the SID-IIs knee and ankle spacing (S12.3.3(a)(6) and S12.3.2(a)(6)): "Place the legs at 120 degrees to the thighs. Set the initial transverse distance between the longitudinal centerlines at the front of the dummy's knees at 160 to 170 mm (6.3 to 6.7 in.), with the thighs and legs of the dummy in vertical planes \* \* \*."

The Alliance recommended specifying spacing measurements for both the knees and ankles to increase the accuracy of the leg positioning. The petitioner stated that some Alliance members reported difficulty in keeping the thighs and legs of the dummy vertical while adjusting the knee spacing.

#### Agency Response

NHTSA is denying this recommendation to add a spacing measurement for the SID-IIs dummy knees and ankles. By maintaining the dummy's thighs and legs in a vertical plane while separating the knees to the prescribed location, we have defined the location of the knees and ankles. Based upon agency testing experience, with the 10 mm knee spacing tolerance, it is possible to maintain the dummy's thighs and legs in a vertical plane with some manipulation. The positioning of the dummy's knees and ankles are not unmanageable, so no further specification is necessary.

#### C. Pelvic Angle

For adjusting the pelvic angle, the final rule (S12.3.2(a)(II)) states: "Measure and set the dummy's pelvic

angle using the pelvic angle gage. The angle is set to 20.0 degrees  $\pm$  2.5 degrees. If this is not possible, adjust the pelvic angle as close to 20.0 degrees as possible while keeping the transverse instrumentation platform of the head as level as possible by adjustments specified in S12.3.2(a)(9) and (10)."

The Alliance said that it found that it is difficult and in some cases impossible to adjust the pelvic angle using the procedure described in the final rule. (The petitioner did not provide examples of vehicles in which this was reportedly found.) It recommended the following: (1) Adjust the pelvic angle by anteflexing or retroflexing the upper body of the dummy; (2) include language designating that priority be given to achieving a level head by the end of the positioning procedure; and (3) reference the global coordinate system as the system relative to which the pelvic angle should be measured.

#### Agency Response

NHTSA is denying the request. While it can be difficult at times adjusting the pelvis to a 20 degree angle and maintaining it at that angle to level the dummy's head, our experience has found that it can be done. The Alliance did not provide information or examples for the agency to evaluate if the difficulty is indeed insurmountable. Further, the regulatory text already gives priority to maintaining the dummy's head level in the procedure by stating: "\* \* \* adjust the pelvic angle as close to 20.0 degrees as possible while keeping the transverse instrumentation platform of the head as level as possible \* \* \*". The agency believes this sufficiently addresses the difficulties and that it is unnecessary to add additional regulatory text.

We also do not agree with the Alliance's recommendation to reference the global coordinate system as the system relative to which the pelvic angle should be measured. S12.3.1(a) states: "\* \* \* measure all angles with respect to the horizontal plane unless otherwise stated \* \* \*", which includes the pelvic angle. Hence, a coordinate system is sufficiently defined. We note also that the requirements and procedure to measure the pelvic angle were first adopted for the 5th percentile female dummy in FMVSS No. 208 (68 FR 65179). This method has been reliable and repeatable from our experience and we believe it is unwarranted to amend the procedure based on present knowledge.

#### D. Adjustment of Lower Neck Bracket to Level Head

S12.3.2(a) of the September 11, 2007 final rule adopted a seating procedure for the SID-IIs driver dummy that included instructions for driver torso/head/seat back angle positioning. Subsections 9 and 10 involve adjustment of the lower neck bracket and leveling of the head. These sections state:

(9) For vehicles without adjustable seat backs, adjust the lower neck bracket to level the head as much as possible. For vehicles with adjustable seat backs, while holding the thighs in place, rotate the seat back forward until the transverse instrumentation platform of the head is level to within  $\pm 0.5$  degree, making sure that the pelvis does not interfere with the seat bight. Inspect the abdomen to ensure that it is properly installed. If the torso contacts the steering wheel, adjust the steering wheel in the following order until there is no contact: telescoping adjustment, lowering adjustment, raising adjustment. If the vehicle has no adjustments or contact with the steering wheel cannot be eliminated by adjustment, position the seat at the next detent where there is no contact with the steering wheel as adjusted in S10.5. If the seat is a power seat, position the seat to avoid contact while assuring that there is a maximum of 5 mm (0.2 in) distance between the steering wheel as adjusted in S10.5 and the point of contact on the dummy.

(10) If it is not possible to achieve the head level within  $\pm 0.5$  degrees, minimize the angle.

The Alliance requested clarification of these instructions, specifically with regard to the instructions in S12.3.2(a)(10) to "minimize the angle."<sup>35</sup>

The petitioner noted that the adjustment range of the dummy's lower neck bracket includes four indices upward and downward from a reference point defined as the point where "0" index of the lower neck bracket (Part #180-2006)<sup>36</sup> and "0" index of the upper neck bracket (Part #180-3815) align.<sup>37</sup> The petitioner further said that if, after adjusting the lower neck bracket the head cannot be leveled, NHTSA

<sup>35</sup> The Alliance noted that these issues also apply to the instructions for seating the SID-IIs in the rear.

<sup>36</sup> See Docket # NHTSA-2006-25442-12 SID-IIs drawing package. The drawing package has been slightly changed in response to petitions for reconsideration of the SID-IIs final rule (see Docket 2009-0002), but drawings referenced in this discussion are unchanged.

<sup>37</sup> The Alliance stated that the reason for the four calibrations is that it is impossible to adjust beyond these points. Furthermore, the Alliance noted that when using the lower neck bracket with a load cell (SA572-S60) instead of using the upper neck bracket (180-2006) and lower neck assembly (180-3816), the adjustable range is modified. It stated that some mobility is disabled in order to account for the presence of the load cell.

<sup>34</sup> Unlike the SAE J826 device (OSCAR) used to locate the 50th percentile male's hip point, there is not an equivalent tool for the 5th percentile dummy.

should consider the minimum angle at that condition as the angle referenced in the instruction to “minimize the angle.” Alternatively, the petitioner suggested that if a head level position exists within the adjustable range of the neck, the closest adjustment detent to head level should be used.

For vehicles where the seat back angle is adjustable, the Alliance suggested that only the seat back is used to level the head to the ground, and that the lower neck bracket is not used to level the head. “If after all possible efforts to level the head using the seatback adjustment are exhausted and the head cannot be leveled, the minimum angle at that condition should become the angle specified as the angle for use when ‘minimi[zing] the angle.’”

#### Agency Response

For adjustable seats, we are denying the suggestion that the lower neck bracket is not used to level the head. The FMVSS No. 214 seating procedure was patterned after the procedure specified for the 5th percentile Hybrid III dummy in FMVSS No. 208, including the adjustment of the dummy’s head. In fact, S12.9 and S12.10 of FMVSS No. 214, which describe adjustment and leveling of the SID–IIs head, are almost exactly the same as S16.3.2.1.9 and S16.3.2.1.10 of FMVSS No. 208 describing adjustment and leveling of the Hybrid III 5th percentile female head.<sup>38</sup> However, we note that the agency’s Office of Vehicle Safety Compliance (OVSC) FMVSS No. 208 test procedure (TP–208–14 Appendix G) specifies positioning procedures for the 5th percentile Hybrid III dummy that go into more detail than the procedures for FMVSS No. 214. The OVSC FMVSS No. 208 test procedure specifically calls out the process to align the neck for the Hybrid III 5th percentile dummy as follows:

\* \* \* \* \*

22. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level  $\pm 0.5$  degrees. *If the head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle.* (S16.3.2.1.9) [Emphasis added.]

\_\_\_\_ Head Level Achieved. (Check all that apply)

\_\_\_\_ Head leveled using the adjustable seat back

\_\_\_\_ Head leveled using the neck bracket.

<sup>38</sup> There are slight differences in the descriptions of steering wheel adjustment methods, which are referenced in these sections of FMVSSs No. 214 and No. 208.

Head Angle \_\_\_\_\_ degrees.

To make the FMVSS No. 214 procedure consistent with that of TP–208–14 Appendix G item 22, we will revise the head leveling procedure in FMVSS No. 214 TP–214P–00. We will specify in the latter TP that, in cases where the head cannot be made level to the ground when the dummy’s head is positioned at its default neck position and after the seat back angle has been adjusted (as appropriate for seats with adjustable seat backs), the neck assembly should be adjusted using the lower neck bracket. Thus, the lower neck bracket may be used to position the dummy’s head when the dummy is seated in vehicles in which the seat back angle can be adjusted and in vehicles in which the seat back angle cannot be adjusted. If the head level cannot be set at level  $\pm .5$  degree tolerance because of lack of mobility, the head is positioned at the closest adjustment detent to that head level.

In addition, we are making two related corrections to S12.3.1(b) of FMVSS No. 214.

First, the Alliance noted a concern relating to when the dummy is fitted with the lower neck load cell (SA572–S60), instead of the upper neck bracket (180–2006) and lower neck assembly (180–3816). According to the SID–IIs drawing (SA572–S60), the lower neck load cell assembly is non-adjustable and duplicates the position of standard brackets (180–2006 and 180–3815) in their “0” angle position. Therefore, if the load cell is used with the SID–IIs, the dummy’s head may not be able to be made level. Since the agency does not measure the load on the dummy’s neck at this time in FMVSS No. 214 compliance tests, there is no need for the load cell to be installed at the time of the test. Without the load cell, the problem is avoided. To avoid this problem, we are clarifying the FMVSS No. 214 test procedure to note that in the SID–IIs dummy we use in the compliance test, the fixed lower neck load cell will not be installed.

Second, there is a sentence in S12.3.2 of FMVSS No. 214, and in S12.3.3 and S12.3.4, noting that the abdomen of the dummy is inspected to ensure it is properly installed. Since the SID–IIs dummy’s abdomen is not a separate piece like the Hybrid III 5th percentile female dummy, this sentence is out of place. We are thus removing it from S12.3.2, S12.3.3, and S12.3.4.

#### E. Other Corrections

This document further corrects the regulatory text for positioning the SID–IIs adopted by the September 11, 2007 final rule to address the following:

- Honda identified misplaced text in S12.3.3, a section that specifies dummy positioning procedures for a SID–IIs in the front passenger position. S12.3.3(b)(3) specifies a foot positioning procedure for a dummy in the rear seat passenger position, which is out of place in S12.3.3. Honda also noted redundant text in S12.3.4(k)(1) for positioning the dummy’s feet in the rear seat.

- In addition, Honda noted that S11.1 (b) of FMVSS No. 214 final rule specified the SID–IIs shoe sizes to be as specified in military regulation MIL–S–2171E. The correct specification is MIL–S–21711E.

- The foot positioning procedure for the SID–IIs front passenger inadvertently did not include a provision that is in FMVSS No. 208 for the Hybrid III 5th percentile female dummy regarding situations in which the dummy’s feet do not contact the floor. We have added the same specification that is in FMVSS No. 208 to S12.3.3(b)(3) of FMVSS No. 214.

ii. ES–2re

#### A. Head CG Location Variability

The September 11, 2007 final rule, at S12.2.1, provides instructions for positioning the ES–2re dummy. S12.2.1 does not include subsections providing instructions on positioning the ES–2re dummy head.

The Alliance noted that the ES–2re neck assembly does not provide any mechanism for adjusting the fore-aft position of the dummy’s head. The petitioner believed that since the ES–2re dummy’s neck assembly includes a flexible rubber neck buffer support, the actual neck angle (and thus head CG location) depends on the condition of the rubber buffer. It stated that the stiffness of this rubber buffer can vary from one dummy to another and can degrade over time. The Alliance believed that stresses placed on the dummy’s neck while in storage can also induce material fatigue and thus affect the condition of the rubber buffer. The petitioner provided measurements of the head CG locations vs. neck bracket angle for several ES–2<sup>39</sup> dummies. It believed that there can be large variations in the actual fore-aft CG location of the dummy head from one dummy to another.

#### Agency Response

The location of the ES–2re head is based on the dummy positioning procedure specified in S12. The head cannot be independently adjusted due

<sup>39</sup> The ES–2 and the ES–2re dummies have identical neck assembly structures.

to its design. However, we do not believe that the concern about head location variation is warranted. The ES-2re's neck assembly includes flexible rubber neck buffer supports that control the neck angle and therefore, the location of the head CG. In 49 CFR part 572, the agency specified neck qualification procedures and performance criteria for the ES-2re dummy's neck, and we expect the qualification corridors to be met prior to any vehicle testing. If the neck is out of specification for qualification, the testing laboratory should tune or replace the neck buffer assemblies accordingly. It is expected that if the buffers were significantly degraded, the dummy would not meet the neck performance criteria. To the extent that improper storage or handling of the dummy have affected the buffers,<sup>40</sup> the condition of the buffers will be assessed in the Part 572 performance test when the neck qualification tests are conducted.

Finally, the Alliance provided no recommended approach that would address their concerns. It stated in its petition that it is "currently working on formulating a practicable solution that mitigates the risks associated with poor test repeatability and will submit additional comments to the agency in the near future." The agency has not received that information to date.

For the above reasons, the agency is denying this aspect of the petition.

#### B. Knee Spacing

The final rule positions the knees of the ES-2re dummy such that their outside surfaces are 150 ±10 mm (5.9 ±0.4 inches) from the plane of symmetry of the dummy. This specific language is used in United Nations under Economic Commission for Europe Regulation 95 (ECE R95), "Uniform provisions concerning the approval of vehicles with regard to the protection of the occupants in the event of a lateral collision," and was adopted in the FMVSS No. 214 final rule.

The Alliance was concerned about how to measure the knee spacing. It noted that the ES-2re requirements differ from both the knees spacing measurements for the 50th percentile Hybrid III dummy in FMVSS No. 208 and the SID-IIs in FMVSS No. 214. For the Hybrid III dummy in FMVSS No. 208, S10.5 requires that the "\* \* \*

distance between the outboard knee clevis flange surfaces shall be 10.6 inches [270 mm]." S16.3.2.1.6 describes the driver knee spacing as, "\* \* \* transverse distance between the longitudinal centerlines at the front of the dummy's knees at 160 to 170 mm (6.3 to 6.7 in) \* \* \*." This is similar to the positioning procedure for the SID-IIs in FMVSS No. 214 (S12.3.3(a)(6)), which states: "Set the initial transverse distance between the longitudinal centerlines at the front of the dummy's knees at 160 to 170 mm (6.3 to 6.7 in) \* \* \*."

The Alliance petitioned for common procedures for the ES-2re and SID-IIs dummies by either adopting the measurement procedure used for FMVSS No. 208 Hybrid III dummy or the measurement procedure used for the SID-IIs dummy. Alternatively, if the agency maintains the positioning procedure for the ES-2re prescribed in the final rule, the Alliance requested a more detailed definition for the knee "outside surface" locations.

#### Agency Response

We are denying the Alliance petition to adopt the FMVSS No. 208 Hybrid III or the SID-IIs dummy knee spacing procedure for the ES-2re. The final rule harmonized with the ES-2 dummy installation procedure defined by ECE R95. That procedure has proven to be objective and repeatable. The Alliance provided no justification for changing to the Hybrid III or SID-IIs knee spacing, except to make the procedures common, which are not reason enough to change the specification at this time. No data was provided to show that the Hybrid III or SID-IIs knee spacing is appropriate for the ES-2re dummy.

Additionally, NHTSA does not find a need to add specifications in the regulatory text or the test procedure to further define the location on the knee from where to take the measurements. The outer surface of the knee is unremarkable, and given the tolerances specified, we believe that further elaboration is unwarranted.

#### C. Corrections

The final rule (S11.5 of FMVSS No. 214 regulatory text) specified a channel filter class of 600 Hz for the ES-2re rib deflection data. The Alliance petitioned to revise the filter class designation since the current ECE R95 regulation specifies a channel filter class of 180 Hz for the ES-2re rib deflection data and there is already regulatory experience with the measurement in Europe. The Alliance also presented data showing the filter class chosen has little overall

effect on the measure rib deflection data.

#### Agency Response

The specification of the 600 Hz channel filter class was in error; we agree to changing it to 180 Hz. The testing the agency conducted with the ES-2re was processed with a 180 Hz filter to measure the rib deflections and our intent was to specify this filter. A 180 Hz channel filter was also specified for the rib deflection measurement in the final rule incorporating the ES-2re into Part 572 (71 FR 75335). We are correcting S11.5 of the regulatory text to specify that the rib deflection data are filtered at channel frequency class 180 Hz.

#### 3. Miscellaneous Corrections

##### i. Exclusion of Rear Seats That Cannot Accommodate a SID in the MDB Test

Currently, the MDB test generally specifies that a SID (50th percentile adult male test dummy) is placed in the rear seat of the test vehicle. However, until the September 11, 2007 final rule, the standard had excluded from the rear seat requirements (S3(b)) vehicles "that have rear seating areas that are so small that the Part 572, subpart F [SID] test dummies cannot be accommodated according to the positioning procedure specified in S7." The September 11, 2007 final rule amended the MDB test so that at the end of the phase-in, only the SID-IIs (5th percentile adult female) test dummy will be used in the rear and not the SID. The final rule continued the complementary provision that has excluded rear seats from the MDB test requirements that are too small to accommodate the relevant test dummy, specifying at S5(b)(3) that rear seats that are so small that the SID-IIs cannot be accommodated are excluded from the rear seat requirements.

In making the change to the SID-IIs, however, the agency removed the provision that had excluded small rear seats that cannot accommodate the SID before the effective date for changing over to the SID-IIs. The Alliance petitioned the agency to reinstate the provision to exclude rear seats that are too small to accommodate the SID until completion of the phase-in schedule, since, the petitioner stated, many vehicles will not be able to be certified to the MDB requirements without the exclusion.

#### Agency Response

We agree to reinstating the exclusion provision. Removal of the exclusion of rear seats that are too small to accommodate the SID was an oversight. We will reinstate a provision in S5 as

<sup>40</sup> According to the ES-2re User's Manual from First Technology Safety Systems (FTSS), "ES-2re Eurosid-2 50th percentile Side Impact Crash Test Dummy with Rib Extension," when stored, the dummy should be supported by the eye bolt in the neck bracket. The FTSS User Manual also states, "\* \* \* do not forget to support the head in such a way that the neck is not under tension."

requested, since the provision is relevant as long as the SID is used in FMVSS No. 214.

ii. FMVSS No. 301 and FMVSS No. 305 Test Dummy Applications

The Alliance and Honda petitioned the agency to revise the regulatory text in FMVSS No. 301, "Fuel system integrity," to account for the use of the new ES-2re and SID-IIIs dummies. The current regulatory text references the now interim SID dummy. Honda also petitioned the agency to revise FMVSS No. 305, "Electric-powered vehicles: electrolyte spillage and electrical shock protection," for the same reason. The Alliance and Honda both state the current regulatory text creates an inconsistency with the phase-in of the new dummies required for the MDB crash test that would preclude using the same crash test for certification with FMVSS Nos. 301 and 305.

Agency Response

We agree with the petitioners. It was an oversight in the final rule not to account for the use of the new test dummies in FMVSS No. 301 and No. 305. Referring to the ES-2re and SID-IIIs dummies in those standards facilitates consolidating the impact tests for the various standards.

iii. Metric Conversion

The Alliance noted conversion errors in load requirements in S6.1.2, S6.1.3, S6.2.2 and S6.2.3. The load requirements in metric units did not match the English units in magnitude. To correct these errors, in S6.1.2, we are replacing "1,557 N" with "15,569 N." In S6.1.3, we are replacing "3,114 N" with "31,138 N." In S6.2.2, we are replacing "1,946 N" with "19,460 N." In S6.2.3, we are replacing "5,338 N" with "53,378 N."

The Alliance also noted that the ES-2re chest deflection criteria in metric units (44 mm) did not match the English units in magnitude in S7.2.5(b) and S9.2.1(b). We are correcting those errors by changing "1.65 inches" to "1.73 inches" in those paragraphs.

iv. Typographical Errors

This document corrects the regulatory text adopted by the September 11, 2007 final rule to address the following typographical errors:

- In S12.3.2(a)(1), there is a reference to "S12.3.3(a)(11)." The correct reference is to "S12.3.2(a)(11)."

- In S12.3.3(a)(1), the word "line" is missing from the term "seat cushion reference line angle" when that term is used in the second sentence for the first time.

- In S12.3.2(b)(6), there is a reference to "S12.3.2(b)(1)(i)-(ii)." (72 FR at 51970.) The reference should be to "S12.3.2(b)(6)(i)-(iii)."

4. Clarifying Effective Date for Convertibles in the MDB Test

The June 9, 2008 final rule responding to petitions for reconsideration delayed the compliance date on which convertible vehicles must be certified to the oblique pole test requirements until after completion of the phase-in for other vehicle types, *i.e.*, until September 1, 2015. The Alliance asked for confirmation that the delay of the effective date for convertibles also applied to the upgraded MDB requirements. In a July 23, 2008 petition for reconsideration, the Alliance asked the agency to make clear that the oblique pole and MDB effective date for convertibles are aligned, *i.e.*, to specify that convertibles not be required to meet the upgraded MDB requirements until September 1, 2015. The Alliance stated that due to the use of the new test dummies and modified seat positioning procedures, manufacturers cannot be assured that current-design convertibles will meet the new MDB requirements without some redesign. The petitioner stated that aligning the dates avoids requiring manufacturers to redesign the same vehicle twice. Furthermore, petitioner stated, convertibles have typically lower sales volumes and thus have a greater need to spread redesign costs over fewer total vehicle sales to reduce burdens.

Agency Response

We are granting the request. It was our intent to align the MBD effective date with the pole test, to reduce the burden on manufacturers for this class of vehicle. This is shown in the following passage from the September 11, 2007 final rule (72 FR at 51946-51947):

After consideration of the comments, NHTSA has decided to adopt a phase-in for the MDB test, and align the phase-in schedule with the oblique pole test requirements, with advance credits. An aligned phase-in will allow manufacturers to optimize engineering resources to design vehicles that meet the MDB and pole test requirements simultaneously, thus reducing costs.

In the June 9, 2008 final rule, NHTSA "extend[ed] the lead time period before manufacturers must begin phasing in vehicles to meet the upgraded FMVSS No. 214 requirements to September 1, 2010" and "adjust[ed] the phase-in schedule of manufacturers' vehicles that are required to meet the new requirements. \* \* \*" The agency did not limit the adjusted lead time period

and phase-in schedule to vehicles other than convertibles. Moreover, NHTSA stated that, "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." (73 FR at 32477.) These statements show that, for convertibles, the oblique pole and MDB effective date are aligned, *i.e.*, convertibles are not required to meet the upgraded MDB requirements until September 1, 2015. We are adding a provision in S7.2.4(a) to make clear that convertibles manufactured before September 1, 2015 are not subject to the upgraded MDB requirements.<sup>41</sup>

5. Bosch's Petition

Bosch's petition to allow sensor information to be fed into the restraint triggering algorithms is denied. It is beyond the scope of the rulemaking.

In the petition, 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,<sup>42</sup> 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.

In a July 22, 2008 follow-up submission, Bosch outlined a test procedure for the agency to consider, verifying that a vehicle is able to measure lateral velocity and the

<sup>41</sup> Convertibles manufactured prior to September 1, 2015 are subject to current FMVSS No. 214 MDB requirements that test with the SID.

<sup>42</sup> According to Bosch's Web site, a CAN-bus or Controller Area Network is a data transmission architecture that enables the in-vehicle computer(s) to monitor sensor data and issue commands for electronic systems such as power door locks, climate control, electronic stability control and automatic restraints. <http://researchinfo.bosch.com/content/language2/html/5585.htm>.



restraint algorithm actually uses this data as part of its crash sensing system for air bag deployment. The procedure entailed executing several driving maneuvers with the vehicle undergoing lateral sliding. External instrumentation would be used to directly measure the vehicle's lateral velocity as a reference and determine that the lateral velocity is read on the CAN-bus. Bosch believed that this would confirm that in a real-world crash, the side impact restraints algorithm calculates lateral velocity as part of its deployment criteria. Bosch suggested that, once this determination is made, NHTSA could upload a reference signal simulating a lateral velocity onto the CAN-bus prior to an oblique pole test. The format of the signal would be agreed upon with the specific vehicle manufacturer.

#### Agency Response

Bosch's petition is beyond the scope of the rulemaking and is thus denied. During the course of the rulemaking,<sup>43</sup> the agency was not presented with any suggested modifications to the vehicle pre-crash test to account for the various sensors that monitor its real time dynamic state. Therefore, it was not considered.

We note some unknowns about Bosch's suggestion. The agency does not know what affect Bosch's requested test set-up would have in conducting our compliance tests (both the potential benefits and unintended consequences). It has been agency practice to minimize the amount of alteration to the vehicle prior to testing. At this point in time, there is no way of knowing what affect artificially inputting a pre-crash test speed into the restraint algorithm might have on the pole test when compared to testing the vehicle in the "as delivered" condition. Bosch stated that it would result in "significantly later TTF (time to fire)" but did not provide any comparative data (specifically dummy injury data) to support its case. We would also have to consider the test burden of a test procedure that entails the execution of several driving maneuvers with the vehicle undergoing lateral sliding, and how such a test procedure might complicate the agency's compliance program and enforcement efforts. In addition, we must consider the safety implications of Bosch's approach, *e.g.*, how feeding in ESC data of a 20 mph crash could affect the real-world performance of the side impact air bag sensing system in crashes.

We acknowledge that the oblique pole test is conducted in a laboratory where

real world conditions are not duplicated completely. We also appreciate that the industry continues to consider the latest sensor technology and the integration of more data into restraint algorithms to make continued improvements in real-world safety. We do not want our FMVSSs to preclude future innovative technology developments. However, given the agency focus on other priorities and the wide array of technologies that could be utilized for advanced side impact sensors, we believe industry is better positioned to develop proposed test procedure revisions to encompass these technologies. The agency is interested in data showing how the current test procedures limit advanced sensor technologies, that take into account safety implications and test burdens, and that provide detail on how the procedures should be revised. With such information, NHTSA can begin to assess the role that sensor information could and should have in an FMVSS compliance test.

In the meantime, with the additional lead time that we provided in the June 9, 2008 final rule, we believe that industry can develop crash sensing strategies to meet the pole test requirements without the agency altering the test set-up to allow for manually inputting pre-crash parameters from the ESC sensors, or other data sources the manufacturers may otherwise use to make real time air bag deployment decisions in the field. Given that vehicles are typically designed to be sensitive enough to deploy air bags in the MDB test, the IIHS side impact test, and the FMVSS No. 201 pole test, we do not believe that a vehicle's time-to-fire would be "significantly later," as Bosch said, without the pre-crash ESC input. From our own fleet testing, we know it is possible for air bags to deploy in a timely manner, and for dummies to meet the requirements without imputing data into the crash sensing system.

#### 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 corrects or clarifies aspects of the test procedures specified by the September 11, 2007 final rule or makes minor adjustments to those procedures. 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 denies requests to exclude multistage vehicles or those with partitions from the upgraded FMVSS No. 214, for the reasons explained in this document. However, in the agency's June 9, 2008 final rule that provided the first response to the petitions for reconsideration, we have provided more time to final-stage manufacturers and alterers to meet the requirements of the September 11, 2007 final rule. That action 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 sufficient federalism implications to warrant either consultation with State and local officials or preparation of a federalism summary impact statement. 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 the responsibilities among the various levels of government."

Further, no consultation is needed to discuss the issue of preemption in connection with today's final rule. The issue of preemption can arise in connection with NHTSA rules in two ways.

First, the National Traffic and Motor Vehicle Safety Act contains an express preemption provision: "When a motor vehicle safety standard is in effect under

<sup>43</sup> RIN 2127-AJ10.

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 unavoidably preempts State legislative and administrative law, not today’s rulemaking, so consultation is unnecessary.

Second, the Supreme Court has recognized the possibility of implied preemption in some instances. 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 some of the NHTSA safety standards. When such a conflict is discerned, the Supremacy Clause of the Constitution makes the State requirements unenforceable. *See Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000).

NHTSA has considered the nature (e.g., the language and structure of the regulatory text) and purpose of today’s final rule and does not foresee any potential State requirements that might conflict with it. Without any conflict, there could not be any implied preemption of State law, including State tort law.

#### *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 issue of preemption is discussed above in connection with E.O. 13132. 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 was 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. The June 9, 2008 final rule extended the lead time period and phase-in of both the pole and MDB test requirements. Today’s final rule has no further reporting or recordkeeping 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 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 NTTAA directs us to provide Congress, through OMB, explanations when we decide not to use available and applicable voluntary consensus standards.

There are no voluntary consensus standards applicable to this final rule that have not been previously discussed in the September 11, 2007 and June 9, 2008 final rules.

#### *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?
- Are the requirements in the rule clearly stated?
- Does the rule contain technical language or jargon that isn’t clear?
- 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?
- Could we improve clarity by adding tables, lists, or diagrams?
- 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.

#### **List of Subjects in 49 CFR Part 571**

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

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

#### **PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS**

■ 1. The authority citation for Part 571 continues to read as follows:

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

- 2. Section 571.214 is amended by:
  - a. Revising S5(b)(3), S6.1.2, S6.1.3, S6.2.2, S6.2.3;
  - b. Adding S7.2.4(a)(3); and
  - c. Revising S7.2.5(b), S8.2, S9.2.1(b), S10.3.2.2, S10.5, S11.1(b), S11.5(b)(1),

S12.1, S12.2.1, S12.3.2(a)(1) and (9), S12.3.2(b)(6), S12.3.3(a)(1) and (9); and S12.3.3(b)(3), S12.3.4(h), and S12.3.4(k).

The revisions and addition read as follows:

§ 571.214 Standard No. 214; Side impact protection.

\* \* \* \* \*

S5 \* \* \*

(b) \* \* \*

(3) Passenger cars, multipurpose passenger vehicles, trucks and buses need not meet the requirements of S7 (moving deformable barrier test) as applied to the rear seat for side-facing rear seats and for rear seating areas that are so small that a Part 572 Subpart V dummy representing a 5th percentile adult female cannot be accommodated according to the positioning procedure specified in S12.3.4 of this standard. Vehicles that are manufactured before September 1, 2010, and vehicles that manufactured on or after September 1, 2010, that are not part of the percentage of a manufacturer's production meeting the moving deformable barrier test requirements with advanced test dummies (S7.2 of this section) or are otherwise excluded from the phase-in requirements of S7.2, need not meet the requirements of the moving deformable barrier test as applied to the rear seat for rear seating areas that are so small that a Subpart F dummy (SID) cannot be accommodated according to the positioning procedure specified in S12.1 of this standard.

\* \* \* \* \*

S6 \* \* \*

S6.1.2 Intermediate crush resistance. The intermediate crush resistance shall not be less than 15,569 N (3,500 lb).

S6.1.3 Peak crush resistance. The peak crush resistance shall not be less than two times the curb weight of the vehicle or 31,138 N (7,000 lb), whichever is less.

\* \* \* \* \*

S6.2.2 Intermediate crush resistance. The intermediate crush resistance shall not be less than 19,460 N (4,375 lb).

S6.2.3 Peak crush resistance. The peak crush resistance shall not be less than three and one half times the curb weight of the vehicle or 53,378 N (12,000 lb), whichever is less.

\* \* \* \* \*

S7.2.4 \* \* \*

(a) \* \* \*

(3) Convertibles manufactured before September 1, 2015, are not subject to S7.2.1 or S7.2.2 of this section. These vehicles may be voluntarily certified to meet the MDB test requirements prior to September 1, 2015. Vehicles manufactured on or after September 1, 2015 are subject to S7 and S7.2.2.

S7.2.5 \* \* \*

\* \* \* \* \*

(b) Thorax. The deflection of any of the upper, middle, and lower ribs, shall not exceed 44 mm (1.73 inches).

\* \* \* \* \*

S8.2 Vehicle test attitude. Determine the distance between a level surface and a standard reference point on the test vehicle's body, directly above each wheel opening, when the vehicle is in its fully loaded condition at the test site, with all tires inflated to the manufacturer's specifications listed on the vehicle's tire placard, and with the vehicle filled to 100 percent of all fluid capacities. The "fully loaded condition" is the test vehicle loaded in accordance with S8.1 of this standard (49 CFR 571.214). The load placed in the cargo area is centered over the longitudinal centerline of the vehicle. The pretest vehicle attitude is equal to the fully loaded attitude ± 10 mm.

\* \* \* \* \*

S9.2.1 \* \* \*

(b) Thorax. The deflection of any of the upper, middle, and lower ribs, shall not exceed 44 mm (1.73 inches).

\* \* \* \* \*

S10.3.2.2 Other seat adjustments. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or non-deployed adjustment position. Position any adjustable head restraint in the lowest and most forward position. If it is possible to achieve a position lower than the effective detent range, the head restraint should be set to its lowest possible position. 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.

\* \* \* \* \*

S10.5 Adjustable steering wheel.

Adjustable steering controls are adjusted so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If there is no setting detent in the mid-position, lower the steering wheel to the detent just below the mid-position. If the steering column is telescoping, place the steering column in the mid-position. If there is no mid-position, move the steering wheel rearward one position from the mid-position.

\* \* \* \* \*

S11.1 \* \* \*

\* \* \* \* \*

(b) 5th percentile female. The 49 CFR part 572 subpart V test dummy

representing a 5th percentile female is clothed in formfitting cotton stretch garments with short sleeves and about the knee length pants. Each foot has on a size 7.5W shoe that meets the configuration and size specifications of MIL-S-21711E or its equivalent.

\* \* \* \* \*

S11.5 \* \* \*

\* \* \* \* \*

(b) Subpart U (Es-2re 50th percentile male) test dummy.

(1) The rib deflection data are filtered at channel frequency class 180 Hz. Abdominal and pubic force data are filtered at channel frequency class of 600 Hz.

\* \* \* \* \*

S12.1 50th percentile male test dummy—49 CFR part 572 subpart F (SID). Position a correctly configured test dummy, conforming to the applicable requirements of part 572 Subpart F of this chapter, in the front outboard seating position on the side of the test vehicle to be struck by the moving deformable barrier and, if the vehicle has a second seat, position another conforming test dummy in the second seat outboard position on the same side of the vehicle, as specified in S12.1.3. Each test dummy is restrained using all available belt systems in all seating positions where such belt restraints are provided. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male occupant. In addition, any folding armrest is retracted. Additional positioning procedures are specified below.

\* \* \* \* \*

S12.2.1 Positioning an ES-2re dummy in all seating positions. Position a correctly configured ES-2re test dummy, conforming to the applicable requirements of part 572 of this chapter, in the front outboard seating position on the side of the test vehicle to be struck by the moving deformable barrier or pole. Restrain the test dummy using all available belt systems in the seating positions where the belt restraints are provided. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male occupant. Retract any folding armrest.

\* \* \* \* \*

S12.3.2 \* \* \*

(a) \* \* \*

(1) With the seat in the position determined in S10.3.2, use only the control that moves the seat fore and aft to place the seat in the rearmost position. If the seat cushion reference line angle automatically changes as the

seat is moved from the full forward position, maintain, as closely as possible, the seat cushion reference line angle determined in S10.3.2.3.3, for the final forward position when measuring the pelvic angle as specified in S12.3.2(a)(11). The seat cushion reference line angle position may be achieved through the use of any seat or seat cushion adjustments other than that which primarily moves the seat or seat cushion fore-aft.

\* \* \* \* \*

(9) For vehicles without adjustable seat backs, adjust the lower neck bracket to level the head as much as possible. For vehicles with adjustable seat backs, while holding the thighs in place, rotate the seat back forward until the transverse instrumentation platform of the head is level to within ± 0.5 degree, making sure that the pelvis does not interfere with the seat bight. If the torso contacts the steering wheel, adjust the steering wheel in the following order until there is no contact: telescoping adjustment, lowering adjustment, raising adjustment. If the vehicle has no adjustments or contact with the steering wheel cannot be eliminated by adjustment, position the seat at the next detent where there is no contact with the steering wheel as adjusted in S10.5. If the seat is a power seat, position the seat to avoid contact while assuring that there is a maximum of 5 mm (0.2 in) distance between the steering wheel as adjusted in S10.5 and the point of contact on the dummy. Adjust the lower neck bracket to level the head as much as possible.

\* \* \* \* \*

(b) \* \* \*

(6) If the left foot does not contact the floor pan, place the foot parallel to the floor and place the leg as perpendicular to the thigh as possible. If necessary to avoid contact with the vehicle's brake pedal, clutch pedal, wheel-well, or foot rest, use the three foot position adjustments listed in S12.3.2(b)(6)(i) through (iii). The adjustment options are listed in priority order, with each subsequent option incorporating the previous. In making each adjustment, move the foot the minimum distance necessary to avoid contact. If it is not possible to avoid all prohibited foot contact, priority is given to avoiding brake or clutch pedal contact:

\* \* \* \* \*

S12.3.3 \* \* \*

(a) \* \* \*

(1) With the seat at the mid-height in the full-forward position determined in S10.3.2, use only the control that primarily moves the seat fore and aft to place the seat in the rearmost position,

without adjusting independent height controls. If the seat cushion reference line angle automatically changes as the seat is moved from the full forward position, maintain, as closely as possible, the seat cushion reference line angle determined in S10.3.2.3.3, for the final forward position when measuring the pelvic angle as specified in S12.3.3(a)(11). The seat cushion reference line angle position may be achieved through the use of any seat or seat cushion adjustments other than that which primarily moves the seat or seat cushion fore-aft.

\* \* \* \* \*

(9) For vehicles without adjustable seat backs, adjust the lower neck bracket to level the head as much as possible. For vehicles with adjustable seat backs, while holding the thighs in place, rotate the seat back forward until the transverse instrumentation platform of the head is level to within ± 0.5 degree, making sure that the pelvis does not interfere with the seat bight.

\* \* \* \* \*

(b) \* \* \*

(3) If either foot does not contact the floor pan, place the foot parallel to the floor pan and place the lower leg as perpendicular to the thigh as possible.

\* \* \* \* \*

S12.3.4 \* \* \*

\* \* \* \* \*

(h) For vehicles without adjustable seat backs, adjust the lower neck bracket to level the head as much as possible. For vehicles with adjustable seat backs, while holding the thighs in place, rotate the seat back forward until the transverse instrumentation platform of the head is level to within ± 0.5 degrees, making sure that the pelvis does not interfere with the seat bight.

\* \* \* \* \*

(k) *Passenger foot positioning.*

(1) Place the rear seat passenger's feet flat on the floor pan and beneath the front seat as far as possible without front seat interference.

(2) If either foot does not contact the floor pan, place the foot parallel to the floor and place the leg as perpendicular to the thigh as possible.

\* \* \* \* \*

■ 3. Section 571.301 is amended by revising S6.3(b), to read as follows:

**§ 571.301 Standard No. 301; Fuel system integrity.**

\* \* \* \* \*

S6.3 \* \* \*

\* \* \* \* \*

(b) *Vehicles manufactured on or after September 1, 2004.* When the vehicle is impacted laterally on either side by a

moving deformable barrier at 53 ± 1.0 km/h with the appropriate 49 CFR part 572 test dummies specified in 571.214 at positions required for testing by S7.1.1, S7.2.1, or S7.2.2 of Standard 214, under the applicable conditions of S7 of this standard, fuel spillage shall not exceed the limits of S5.5 of this standard.

\* \* \* \* \*

■ 4. Section 571.305 is amended by revising S6.3 and S7.5, to read as follows:

**§ 571.305 Standard No. 305; Electric-powered vehicles: electrolyte spillage and electrical shock protection.**

\* \* \* \* \*

S6.3 *Side moving deformable barrier impact.* The vehicle must meet the requirements of S5.1, S5.2 and S5.3 when it is impacted from the side by a barrier that conforms to part 587 of this chapter that is moving at any speed up to and including 54 km/h, with the appropriate 49 CFR part 572 test dummies specified in 571.214 of this chapter.

\* \* \* \* \*

S7.5 *Side moving deformable barrier impact test conditions.* In addition to the conditions of S7.1 and S7.2, the conditions of S8.9, S8.10, and S8.11 of 571.214 of this chapter apply to the conduct of the side moving deformable barrier impact test specified in S6.3.

\* \* \* \* \*

Issued: March 9, 2010.

**David L. Strickland,**

*Administrator.*

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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 648**

[Docket No. 0907221160-91412-02]

**RIN 0648-AY01**

**Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Monkfish Fishery**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues this final rule to amend the Monkfish Fishery