Environment

We have analyzed this rule under Commandant Instruction M16475.1D, which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have concluded that there are no factors in this case that would limit the use of a categorical exclusion under section 2.B.2 of the Instruction. Therefore, this rule is categorically excluded, under figure 2–1, paragraph (34)(g), of the Instruction, from further environmental documentation.

A final ''Environmental Analysis Check List'' and a final ''Categorical Exclusion Determination'' are available in the docket where indicated under **ADDRESSES.**

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and record-keeping requirements, Security measures, Waterways.

■ For the reasons discussed in the preamble, the Coast Guard amends 33 CFR Part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05–1(g), 6.04–1, 6.04–6, and 160.5; Pub. L. 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add new § 165.T11–031 to read as follows:

§ 165.T11–031 Security Zone: Pacific Ocean, San Diego, CA.

(a) *Location.* The navigable waters encompassed by a line connecting the following points: starting from a point on shore at 32°38.88′ N, 117°09.02′ W, then west to point 32°38.88' N, 117°12.2′ W, then southwest to point 32°36.70′ N, 117°13.83′ W, then south to point 32°32.88′ N, 117°13.83′ W, then east along latitude 32°32.88′ N to shoreline.

(b) *Enforcement period.* This section will be enforced from 8 a.m. (P.s.t.) on November 10, 2003, until 11:59 p.m. (P.s.t.) on November 21, 2003. If the Coast Guard terminates enforcement of this security zone prior to the scheduled termination time, the Captain of the Port will cease enforcement of this safety zone and will announce that fact via Broadcast Notice to Mariners.

(c) *Regulations.* In accordance with the general regulations in § 165.33 of this part, entry into, transit through, loitering, or anchoring within this security zone by all persons and vessels is prohibited, unless authorized by the Captain of the Port, or his designated representative. Mariners are advised that the security zone will not restrict the main navigational channel and transit through the channel is not prohibited. Mariners requesting permission to transit through the security zone may request authorization to do so from Captain of the Port or his designated representative. The Coast Guard can be contacted via VHF–FM channel 16.

Dated: November 7, 2003.

Stephen P. Metruck,

Commander, U.S. Coast Guard, Captain of the Port, San Diego.

[FR Doc. 03–28810 Filed 11–18–03; 8:45 am]

BILLING CODE 4910–15–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA 03–16476, Notice 1]

RIN 2127–AI82

Federal Motor Vehicle Safety Standards; Occupant Crash Protection

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Final rule; response to petitions for reconsideration.

SUMMARY: This document responds, in part, to petitions for reconsideration of the amendments we made in December 2001 to our May 2000 Advanced Air Bag Rule. Because of time constraints faced by vehicle manufacturers in certifying a portion of their fleet to the advanced air bag requirements, we bifurcated our response. This document addresses detailed seat and dummy positioning procedures. In particular, we are responding to those portions regarding seat positioning procedures when using the 5th percentile adult female test dummy in the barrier test and the low risk deployment test; when using the 3-year-old and 6-year-old test dummies in the low risk deployment test; the fore and aft seat location for rear facing child restraint systems (RFCRSs); and the seat track position for the low risk deployment test. This document responds to test dummy positioning procedure issues, specifically those addressing foot positioning of the 5th percentile adult female test dummy; positioning out-of-position test dummies; and positioning of test dummy hands. This document amends the definition of ''Plane B'' and ''Plane D'' as they relate to test dummy positioning, Point 1 under the low risk deployment tests, and addresses other reference points and definitions. This document also amends the list of child restraint systems required for certain compliance testing. A previous document has already dealt with the time sensitive issues and minor technical issues raised in the petitions for reconsideration.

DATES: *Effective date:* The amendments made in this rule are effective January 20, 2004.

Petitions: Petitions for reconsideration must be received by January 5, 2004 and should refer to this docket and the notice number of this document and be submitted to: Administrator, National Highway Traffic Safety Administration, 400 Seventh St., SW., Washington, DC 20590.

ADDRESSES: Submissions may be made [identified by DOT DMS Docket Number NHTSA–03–16476, Notice 1] by any of the following methods:

- Web Site: *http://dms.dot.gov.* Follow the instructions on the DOT electronic docket site.
- Fax: 1–202–493–2251.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–001.
- Hand Delivery: Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 am and 5 pm, Monday through Friday, except Federal Holidays.
- Federal eRulemaking Portal: Go to *http://www.regulations.gov.* Follow the online instructions.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. Note that all comments received will be posted without change to *http://dms.dot.gov* including any personal information provided. Please see the Privacy Act heading under Rulemaking Analysis and Notices.

Docket: For access to the docket to read background documents or comments received, go to *http://dms.dot.gov* at any time or to Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 am and 5 pm, Monday through Friday, except Federal Holidays

FOR FURTHER INFORMTION CONTACT: For non-legal issues, you may contact Louis Molino, Office of Crashworthiness Standards, at (202) 366–2264, and fax him at (202) 493–2739.

For legal issues, you may contact Christopher Calamita or Rebecca MacPherson, Office of Chief Counsel, at (202) 366–2992, and fax them at (202) 366–3820.

You may send mail to these officials at the National Highway Traffic Safety Administration, 400 Seventh St., SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background

On May 12, 2000, we published an interim final rule to require advanced air bags (65 FR 30680: Docket No. NHTSA 00–7013; Notice 1) (Advanced Air Bag Rule). The rule addressed the risk of serious air bag-induced injuries, particularly for small women and young children, and amended Federal Motor Vehicle Safety Standard (FMVSS) No. 208, *Occupant crash protection,* to require that future air bags be designed to minimize such risk.

The issuance of the Advanced Air Bag Rule completed the implementation of our 1996 comprehensive plan for reducing air bag risks. The rule was also required by the Transportation Equity Act for the 21st Century (TEA 21), which was enacted in 1998. TEA 21 required us to issue a rule amending FMVSS No. 208:

> to improve occupant protection for occupants of different sizes, belted and unbelted, under Federal Motor Vehicle Safety Standard No. 208, while minimizing the risk to infants, children, and other occupants from injuries and deaths caused by air bags, by means that include advanced air bags.

Eight petitions for reconsideration of the Advanced Air Bag Rule were submitted to the agency (see Docket No. NHTSA 00–7013). In addition, NHTSA received two requests for clarification within the time period for filing petitions and three comments that would have been considered petitions for reconsideration had they been timely filed.

Petitioners raised a large number of concerns about the various test procedures in their written submissions. To adequately address these issues, the agency held a technical workshop so that we could better understand the specific concerns and better determine if the test procedures needed refinement.[1]

All submissions were addressed in the agency response published in the **Federal Register** on December 18, 2001 and several changes were made to the Advanced Air Bag Rule (66 FR 65376; Docket No. NHTSA 01–11110) (December 2001 final rule). These changes included a number of refinements to the test dummy positioning procedures for the 5th percentile adult female, 12-month-old, 3-year-old, and 6-year-old test dummies used in the barrier tests and the low risk deployment tests. The December 2001 final rule also amended the list of child restraint systems in Appendix A for use in certain compliance tests. The list was amended to remove those restraints no longer in production and replacement restraints were added.

II. Petitions for Reconsideration

We have received eight petitions for reconsideration of the December 2001 final rule. These petitions were filed by the Alliance of Automobile Manufacturers (Alliance), Volkswagen, Honda, Porsche, DaimlerChrysler, and Toyota. Additionally, BMW, and Autoliv (an air bag manufacturer) filed petitions shortly after the deadline for filing petitions for reconsideration had passed. Under agency regulation (49 CFR 553.35(a)), late filed petitions for reconsideration are treated as petitions for rulemaking. However, BMW and Autoliv's petitions did not raise any issues that had not also been addressed by timely petitions. Thus as a practical matter, the issues in BMW and Autoliv's petitions will be considered as part of the agency response to the timely-filed petitions for reconsideration. TRW submitted a request for clarification on one of the issues raised by other petitioners, namely the positioning of the 3-year-old and 6-year-old dummies for the ''head on the instrument panel test.'' Ford submitted a request for interpretation (RFI) concerning dummy positioning. To the extent that Ford's RFI overlaps timely petitions, it will be addressed in this document. Several supplemental docket submissions were also made after the deadline. These documents provided additional information on issues previously raised in the petitions for reconsideration. In addition, Evenflo, a child restraint manufacturer, has petitioned the agency to remove certain Evenflo restraints from Appendix A and replace them with other models. Some of the issues raised by that petition are discussed in today's rule.

In this document, we are responding to those portions of the petitions regarding detailed seat and test dummy positioning procedures, positioning reference planes, low risk deployment and unbelted barrier test speeds, inclusion of CRSs in FMVSS No. 208 Appendix A for suppression testing, and the use of neck and chest injury criteria in in-position tests. The remaining issues raised by petitioners have been addressed in a previous notice. (68 FR 504; January 6, 2003.)

III. Summary of Response to Petitions

As previously noted, this document addresses the remaining issues raised in the petitions for reconsideration: Issues impacting seat positioning procedures and dummy positioning procedures, other test procedure clarifications, issues associated with the child restraints specified in Appendix A of FMVSS No. 208, and corrections to inadvertent changes that were made to the regulatory text in the December 2001 final rule.

[1] The workshop was held on December 6, 2000 at NHTSA's Vehicle Research and Test Center in East Liberty, Ohio. Representatives of 18 vehicle manufacturers and 13 seat, sensor, and dummy manufacturers attended the workshop. Five different vehicles were used as test vehicles. Some of the five had been provided by manufacturers because they were experiencing particular problems with the existing test procedures in these vehicles.

We are amending several seat positioning and dummy positioning test procedures for the purpose of clarification and to accommodate design diversity. Based on petitioners requests, the dummy positioning procedures for the barrier test and the low risk deployment test with the 5th percentile adult female test dummy are being amended for clarity. The positions will be maintained as initially intended, but the regulatory text is modified to clarify the descriptions of seat adjustment controls and to add a definition of ''seat cushion reference.'' To clarify the seat set-up for the infant low risk deployment test using RFCRSs, we are amending the regulatory text to specify that the test is to be performed with the seat in the full forward position only. To further clarify the infant low risk deployment test seat set-up and eliminate any inadvertent confusion created by the December 2001 final rule, we are also amending the seating positioning procedure for the 64 km/h (40 mph) indicant test to specify that it be performed at the full forward, middle, and full rearward seat positions. We are denying petitioners' request that the passenger low risk deployment indicant test only be performed with the seat in the mid-track position.

As a result of issues raised by petitioners and to address the use of asymmetrical seats, the dummy positioning procedures for the 5th percentile adult female test dummy in the barrier tests and the procedures for advanced air bag tests with a CRS now reference the seating reference point (SgRP) when determining the longitudinal centerline of a bucket seat cushion.

In this document, we also address several issues that deal with dummy positioning procedures. We are establishing a prioritized list of three foot positioning adjustments to clear undesirable contact by the left foot of the 5th percentile adult female test dummy in the barrier tests. In response to a request for guidance in the instances where the heel of the right foot cannot initially contact the vehicle floor, the agency is amending the compliance test procedure to allow for the extension of the lower leg towards the accelerator. The procedure for positioning the test dummy in the driver's seat for the low risk deployment test is amended to limit adjustment positions so there is no contact between the dummy legs and the steering wheel. As a result of issues raised by petitioners, the positioning procedures for the 3-year-old and 6-year-old dummies in low risk deployment testing are amended to indicate that as the dummy is moved forward its height is to be maintained from the point the dummy loses contact with the seat cushion. The low risk deployment testing positioning procedures are also amended to reflect that the femur angle of the test dummy with respect to the horizontal plane must be maintained.

In response to petitions to amend the reference point for positioning out-of-position dummies, we are establishing an objective method to transfer a point onto the air bag cover, relying on the volumetric center of the folded air bag and the volumetric center of the static inflated air bag.

This document also deals with issues associated with child restraints specified in Appendix A of FMVSS No. 208, and sets forth the methodology that the agency will utilize in making changes to the appendix in the future. Specifically, the appendix is amended to remove CRSs that are no longer in production and add CRSs that have the LATCH system. Several minor, non-substantive changes are also made to the final rule.

While the effective date of the amendments adopted today is sixty days after publication, manufacturers may choose to comply with the new requirements prior to such time. If asked, manufacturers will be required to tell NHTSA which set of requirements it relied on in certifying a particular vehicle.

IV. Seat Positioning Procedures

A. Barrier Test (5th Percentile Adult Female Test Dummy), Low Risk Deployment Test (5th Percentile Adult Female, 3-Year-Old, and 6-Year-Old Test Dummies), and Other Test Procedures

Based on requests for clarification in several petitions for reconsideration, we are amending the regulatory language to clarify the seat positioning procedures for the barrier test and low risk deployment testing procedures. In their petitions for reconsideration, Mitsubishi and Autoliv requested clarification of the requirements for seat cushion height and angle as they relate to the mid-height determination. The December 2001 final rule amended the seating procedure for the 5th percentile adult female test dummy in the barrier test. The amendments addressed the potential problem of early dummy contact with the steering wheel, steering column, or knee bolster when the dummy is in the full forward position.

Autoliv stated that there is sometimes a conflict between achieving the true midpoint height and maintaining the seat cushion reference angle when following the seating procedure. With respect to S16.2.10.3.2, Autoliv stated:

> The problem arises if [the correct mid-position] results in a discrepancy between the seat cushion angle and the ''seat cushion reference angle''—where do you hold the height as you adjust the cushion angle? It would seem logical that the midpoint height should be held at the h-point, but this is not the most convenient reference to use, as it is not an actual part of the seat. (Docket No. NHTSA 2001–11110–7.)

Mitsubishi questioned whether the revised S16.2.10.3.3 takes into account the type of seat cushion capable of being adjusted up and down independently of the seat back, or if S16.2.10.3.3 applies only to up and down height adjustment mechanisms as they relate to the whole seat.

Ford, in its RFI, asked a related question about the position of the seat in the low risk deployment test with the 5th percentile adult female test dummy (S26.2.3). Ford asked:

> Is a seat with separate controls/mechanism for adjusting the front and rear seat height an example of an ''independent seat cushion angle adjustment mechanism''? If it is, then would setting front and rear heights independently to their respective mid height positions represent the proper seat cushion angle setting?

Based on these petitions, there appears to be some confusion in how to position the seat, both in terms of height and seat cushion angle, as well as the interaction between these two requirements. Therefore, the agency is amending the regulatory language to clarify the positioning procedures in S16.2 and S26.2 of FMVSS No. 208. The position will be maintained as initially intended, but is now clarified by the modification of the descriptions of seat adjustment controls and the addition of a definition of ''seat cushion reference.''

The regulatory text frequently uses the term ''controls which move the seat fore and aft,'' and in traditional seat designs this would refer to the seat track adjustment. In fully powered seats there is typically an analogous control. However, both the manual and powered adjustments often also cause the seat height to change slightly, due to the pan/seat track angle from horizontal. As a result there may not be a seat adjustment mechanism that solely moves the seat fore and aft. Therefore, in S16.2 and S26.2, we are amending ''seat adjustment'' to include the phrase, ''control which *primarily* moves the seat fore and aft.'' (Emphasis added.) For consistency, similar amendments are being made to S16.3 and S26.3.

S20, S22, and S24, which define test procedures for the suppression and low risk deployment testing for 12-month-

old, 3-year-old, and 6-year-old dummies and activation testing using the 5th percentile adult female test dummy, respectively, utilize the seat cushion reference angle generated in S16.2.10.3.1. Although petitioners did not refer to these sections, we believe that consistency between S16 and S26 and S20, S22, and S24 is important. As such, these sections are being similarly amended.

For additional clarification, we are adding a definition of ''seat cushion reference point'' (SCRP) as a new section, S16.3.1.12. The SCRP is a point on the side of the seat cushion. This definition, along with seat cushion angle, clearly specifies the desired seat position. The mid-height positioning previously specified in S20, S22, and S24 is maintained, but now defined in terms of the SCRP.

It is also important to note that if the regulatory text requires ''seat adjustment,'' this is a change in position of the entire seat including the seat cushion and back. If ''seat cushion'' or ''seat back'' is specified, it indicates adjustment of these components independent of the rest of the seat.

We recognize that the amendments made to the barrier tests that use the 5th percentile adult female test dummy may be appropriate for incorporation into the barrier tests that use the 50th percentile adult male test dummy. However, we also recognize the time sensitive nature of the petitions for reconsideration and the need to address the issues raised in those petitions. Therefore, at this time we are not incorporating such amendments into the barrier tests that use the 50th percentile adult male dummy, but may consider such changes at a later date.

B. Rear Facing Child Restraint System (RFCRS) (Low Risk Deployment and Indicant Test Procedures)

In the December 2001 final rule, the agency specified seat track, seat height, head restraint, and seat back angle in the positioning procedures for each of the low risk deployment tests, including the infants in RFCRS test option. DaimlerChrysler subsequently petitioned the agency, requesting clarification as to whether the infants in RFCRS test option, under the requirements of S19.3 of FMVSSS No. 208, is performed with the seat in the full forward position only, or in the full forward, middle, and full rearward positions.

DaimlerChrysler claimed that there is an inconsistency in the seating position requirements of the General Provisions of S20.1.2 and the low risk deployment test procedure specified in S20.4.1. Section 20.1.2 states that certification is required at full forward, middle and full rearward positions. S20.4.1, which is under the low risk deployment test procedure, simply specifies a full forward position. DaimlerChrysler recommended that if it is the agency's desire to perform the low risk deployment test in the full forward position, the agency should place the phrase ''unless otherwise specified'' into S20.1.1. This would be consistent with the regulatory text covering the 3-year-old low risk deployment test in S22.1.2.

We do not believe there is any inconsistency between the general seating positioning procedures and the low risk deployment tests. Although S20.1.2 does not make the qualifying statement, ''unless otherwise specified,'' S20.1.9, *Seat set-up,* does. However, in order to alleviate confusion, we are amending S20.1.2 to include the phrase ''unless otherwise specified.'' The text in S20.1.2 is now consistent with S22.1.2 and S24.1.2, which specify seat track positions in the General Provisions for the requirements using the 3-year-old and 6-year-old, respectively.

In light of the petitioner's confusion, the agency is also amending S20.4.9, which specifies the required seating position for the 64 km/h (40 mph) indicant test. It may have been unclear from the text in the December 2001 final rule that the indicant test is to be performed in the rearward facing position at the full forward, middle, and full rearward seat positions. In the December 2001 final rule, the position reference in S20.4.9 was changed from S20.2.1 to S20.4. This change served to emphasize that only the rearward facing position of the CRS is necessary for the 64 km/hr (40 mph) indicant test. However, this had the inadvertent effect of limiting the indicant test to only the full forward position of the seat. This was not our intent. Therefore, S20.4.9 is amended to reference S20.4 for the dummy positioning and S20.2.1 for the seat track positions; full forward, middle, and full rearward.

C. Low Risk Deployment Test Procedure—Seat Track Position

We are denying the petition to amend the seat track position requirements for the low risk deployment 26 km/h (16 mph) indicant test under S22.5. The Advanced Air Bag Rule specified the use of the 50th percentile adult male test dummy in the mid-track position. The December 2001 final rule amended the passenger side requirement to a 5th percentile adult female test dummy seated in any track position. The agency stated that it did not want ''manufacturer's to rely on seat track based systems to assure a low risk deployment at speeds up to 26 km/h (16 mph).'' 66 FR 65376, 65393.

The Alliance again petitioned the agency to amend S22.5 so that for systems that do not rely on seat-track-based sensors to determine the air bag deployment stage, the low risk deployment 26 km/h (16 mph) indicant test would only be performed at the mid-track position. The Alliance stated that for such systems, testing in all positions was superfluous.

There is not sufficient reason to grant Alliance's request. The test is done simply to determine the stage of air bag deployment and is not required to have an instrumented dummy. If a manufacturer's system is not affected by seat track position, then the seat position will not influence the air bag deployment stage(s), and only a single test would be needed.

V. Test Dummy Positioning Procedures

A. Left Foot—5th Percentile Adult Female Test Dummy (Barrier Test)

We are clarifying the guidance for pedal interference with the dummy's left foot by establishing a prioritized list of avoidance positioning and we are extending this guidance to avoiding undesirable contact with the foot rest. The December 2001 final rule amended the driver's left foot positioning requirement for the 5th percentile adult female test dummy under FMVSS No. 208, by stipulating that the foot must not be placed on the foot rest or wheel-well projection. Mitsubishi, Honda, and Toyota have further petitioned the agency regarding procedures for positioning the left foot of the 5th percentile adult female test dummy in the barrier test. Mitsubishi, Toyota, and Honda recommended revisions to the placement of the left foot.

Mitsubishi and Honda petitioned the agency to allow the left foot of the dummy to be placed on the foot rest in the frontal barrier test, just as the 50th percentile adult male dummy's foot is placed in the frontal barrier test. Toyota suggested a revision to S16.3.2.2.3 to avoid a conflict between the knee and foot positions.

Honda stated that if, because of the variability of the knee positioning, a small part of the left foot sits on the foot rest there will be an increase in chest and femur loads due to ankle rotation. Honda additionally stated that if positioning resulted in the left foot resting on the foot rest, ''it is not natural or reasonable that the foot should be moved rearward so that the heel does not contact the foot rest.''

Mitsubishi requested guidance on what should be done to avoid foot rest contact. They stated that the dummy could be rotated about the center of the waist area to get the foot off of the foot rest. Mitsubishi also requested guidance on what to do if the foot were to get caught behind the clutch or brake pedal or between the pedal and the foot rest.

Toyota stated that placing the left knee ''the same distance from the midsagittal plane of the dummy as the right knee,'' as specified by S16.3.2.1.8, would naturally position the left foot on the foot rest. However, according to S16.3.2.2.3, the left foot is not to be placed on the foot rest. Toyota stated that priority should be given to positioning the dummy so that the left foot is not on the ''wheel-well projection or foot rest.''

We have determined that further guidance is required as to the necessary action to be taken if foot rest/wheel well contact occurs. The regulatory text, in S16.3.2.2.5, does give guidance on what to do if pedal interference occurs. We are clarifying the guidance on pedal interference and extending it to foot rest contact.

Currently, to avoid pedal contact, the foot may be rotated and, if necessary, the leg may be rotated at the hip. Although rotation of the foot and hip may be effective at clearing contact with the pedals, in vehicles with a small space between the pedal and foot rest, this action may lead to contact with the foot rest. However, an effective means of clearing both pedal and foot rest/wheel well contact may be to fit the foot under the pedal. To achieve this, the ankle joint may need to be extended such that the toes are closer to the toe pan.

We are establishing a prioritized list of three foot positioning adjustments to clear the undesirable contact. In order, starting with highest priority, the first is foot rotation (adduction/abduction), the second is ankle joint extension (foot plantar flexion), and the third is leg rotation at the hip. Each subsequent adjustment allows all previous adjustments.

For some vehicles there may be no position which totally avoids pedal and foot rest contact. For these situations, pedal avoidance has priority. This may, in some small percentage of vehicles, force the foot to rest partially on the foot rest. Although some petitioners wished to avoid such positioning, the only other alternative would be to force foot positioning on the entire foot rest. However, we believe that this is a more unnatural position than partial foot rest contact.

B. Right Foot—5th Percentile Adult Female Test Dummy (Barrier Test)

Autoliv petitioned the agency to provide guidance on instances where the driver's right foot cannot reach the floor when positioned according to S16.3.2.2. Autoliv stated that one solution would be to lower the seat, but that this may not work for all vehicles. The Ford RFI also indicated that there are some Ford models where the driver's right heel cannot touch the floor while maintaining the specified contact with the accelerator.

Autoliv's request for guidance has merit; however, the agency does not believe that lowering the seat is an acceptable solution for any vehicle. To address the situation where the heel cannot initially contact the vehicle floor, the agency is amending the compliance test procedure to allow for the extension of the lower leg towards the accelerator pedal rather than leaving the leg hanging vertically. For the situation where the heel can initially contact the floor, but cannot maintain contact and reach the pedal, lower leg extension with the heel leaving the floor is also the preferred position. If the final position results in the heel being off of the floor, a spacer block is to be used to support the foot.

C. Chin-on-Steering Wheel Test Procedure

The Advanced Air Bag Rule adopted a low risk deployment test to address the risk air bags pose to out-of-position drivers, particularly those of small stature. The test is performed using two ''worst case'' positions: placing the dummy's chin on the module and placing the dummy's chin on the steering wheel. The December 2001 final rule amended S26.3.7 of FMVSS No. 208 to specify a point on the dummy's chin, which is to rest on the upper most point of the steering wheel, to adequately ensure that the dummy's chin would not catch on the steering wheel.

Volkswagen stated that the December 2001 amendments to S26.3.7 introduced additional steering wheel adjustment that could significantly affect the stringency of the test because of the lower position. They believed that there was no justification presented for the change and petitioned to amend the test as prescribed under the Advanced Air Bag Rule.

We believe the change in steering wheel position was justified. Toyota's petition for reconsideration of the Advance Air Bag Rule asked that NHTSA provide a more detailed test procedure to avoid the possibility of the dummy chin hooking on the steering rim. As part of the response, we provided a well-defined contact point on the chin. Another part of the response was to allow for the repositioning of the steering wheel, if necessary, to get the chin and steering wheel to the proper relative position. Volkswagen stated that this change could result in more stringent requirements, yet as the agency stated in the December 2001 preamble, ''(t)he purpose of the chin-on-rim test is to determine the risk of injury when a person's chest is directly in the path of the deploying air bag.'' (66 FR 65376, 65396.) The goal has always been to test in the worst-case configuration.

Autoliv stated that they were concerned that lowering the steering wheel to position the rim for contact with the dummy chin may pin the occupant in place, affecting the dummy injury readings. Autoliv petitioned the agency, asking for clarification on the amount of ''effort'' that should be exerted in positioning the steering wheel if contact occurs with the dummy legs. Ford raised similar concerns in their RFI. Autoliv also requested clarification on whether the agency's intent was to allow angular adjustment of the steering wheel, and, if adjustment other than angular adjustment of the steering wheel is allowed, what is the order of adjustment.

In response to the question raised by Autoliv, S26.3.7 is amended. The regulatory text will now limit adjustment to positions that would not cause contact between the dummy legs and steering wheel. This is consistent with the dummy positioning in the rigid barrier test, which uses the 5th percentile adult female test dummy (S16.3.2.1.8).

Conversely, clarification is not necessary in the regulatory text related to the allowable types of steering wheel adjustment. S26.3.2 indicates that the geometric center of the entire range of steering wheel adjustments is to be found. Therefore, when positioning the steering wheel to comply with S26.3.7, the tester is not limited to angular adjustment. Further, it is not necessary to specify the order of adjustment. Although it may be technically correct that the point of contact on the steering wheel may not be unique, *i.e.*, there may be a line of potential contact points, we believe the variation in the steering wheel orientation will be quite small.

Mitsubishi stated that the preamble to the December 2001 final rule appears to state that the initial thorax instrument cavity rear face angle should take precedence during dummy position, but further on in the preamble it appears

that keeping the dummy parallel to the steering wheel angle should take precedence. Mitsubishi requested clarification on what should take precedence during dummy positioning.

With respect to Mitsubishi's comment, positioning the thorax instrument cavity rear face 6 degrees forward of the steering wheel angle is the methodology prescribed to ensure that the dummy torso is parallel to the steering wheel.

D. Head-on-Instrument Panel Test Procedure

1. Test Dummy Height

S22.4.3.4 and S24.4.3.4 of FMVSS No. 208 were modified in the December 2001 final rule so that, as a dummy is pushed forward, the height of the dummy must be maintained. (66 FR 65394.) Autoliv and BMW commented that requiring the dummy's height to be maintained as it is pushed forward did not make sense until the dummy leaves the seat. Clearly, to the extent that a seat is not a horizontal flat surface, the dummy height will change until it loses contact with the seat cushion. The preamble to the December 2001 final rule was silent on the reason for this restriction. Therefore, S22.4.3.4 and S24.4.3.4 are amended to indicate that dummy height is to be maintained from the point the dummy loses contact with the seat cushion.

2. Torso Positioning

S22.4.3.4 and S24.4.3.4 were also modified in the December 2001 final rule by adding the restriction that, as the dummy is pushed forward the angle of the thigh with respect to the horizontal had to be maintained. (66 FR 65376, 65394.) This was in response to a petition for reconsideration from Honda, in which Honda stated that the leg position could affect the dummy measurements. Also in response to the Advanced Air Bag Rule, Volkswagen and DaimlerChrysler recommended that the dummy femurs be kept parallel to the floor pan.

The preamble to the December 2001 final rule contained statements that seemed to contradict each other. First, the agency stated that we were rejecting the recommendations of Volkswagen and DaimlerChrysler. (66 FR 65376, 65395.) Then we stated that head contact with the IP is critical, even if the legs must be rotated out of the horizontal plane.[2] The preamble then stated that dummy torso rotation could result in a relatively severe leg angle, as measured against the pelvis, but ''we believe it is more critical that the head contact the (IP) than that [the leg] angle remain constant.'' (66 FR 65376, 65395.) The first statement implies that which if the appropriate head position requires the femur to rotate out-of-position with respect to the horizontal plane, this is acceptable. The second statement implies that if the torso to femur angle must become severe in order to simultaneously provide the appropriate head position while maintaining leg position with respect to the horizontal plane, this is acceptable. The December 2001 final rule amended the regulatory text to reflect the second statement in that it required the femur angle with respect to the horizontal plane to be maintained.

In their petitions for reconsideration of the December 2001 final rule, Toyota and BMW commented that requiring the thigh position to be maintained under the positioning procedures of S22.4.3.5 and S24.4.3.5 was not possible because of the molded hip joint of the dummies. We have determined that in some vehicles, as indicated by the Toyota and BMW petitions, the required angle between the torso and the femurs is too small for the dummy to physically accommodate because of insufficient articulation. Therefore, we are amending the regulation so that the femurs may be released from their horizontal constraints to achieve the appropriate head position, if a specific condition is met. The orientation of the legs is to be maintained with respect to the horizontal until a force on the dummy torso of 222 N (50 lb) is reached. At that point the legs are allowed to rotate about their point of contact with the seat. If the legs have already lost seat contact or lose seat contact during the process of leg rotation, the entire dummy is constrained to rotate about its H-point. The 222 N (50 lb) force specification was selected because it is less than the 311 N (70 lb) force specified in S22.4.3.6 and S24.4.3.6 that can be used to keep the dummy in place.

E. Hand Positioning

Under S22.4.2.2.3, S22.4.3.2.3, S24.4.3.2(c), S26.2.4.5, and S26.3.4.5, test dummies are to be positioned with their hands ''in contact with the thighs.'' Autoliv petitioned for the positioning text to require hands be placed ''beside the thighs.'' Autoliv stated that they do not believe it is possible to place the hands in contact with the thighs without using tape or some other method.

In conducting compliance tests, the agency has not experienced the problem described by Autoliv and no other comments were made related to this issue. The problem could be an anomaly in the Autoliv dummy related to wrist joint interference with the dummy skin. As such, we are denying Autoliv's petition with respect to amending the language on dummy hand positioning.

VI. Planes, Points, and Definitions

A. Plane B

Based on issues raised by a petitioner, we are amending the dummy seating positioning procedures for the 5th percentile adult female dummy and Plane B for child safety tests to reference the SgRP. As finalized in the December 2001 final rule, S16.3.1.10 (general provision for the 5th percentile adult female dummy seating positioning procedures) and S20.1.10 (general provision of the test procedure for the requirements to provide protection for infants in rear facing and convertible child restraints and car beds) of FMVSS No. 208 used the seat cushion centerline as a reference (Plane B). The December 2001 final rule defined the longitudinal centerline as being at the center of the widest part of the seat cushion. In their petition, Mitsubishi stated that for asymmetric seat cushions the centerline will not pass through the seat back centerline, and that the difference can be significant. They further stated:

> (T)he offset dummy position created by positioning the test dummy based on the centerline of an asymmetric seat cushion can cause the test dummy to shift as the vehicle is towed toward the barrier, which could adversely affect test repeatability. (Docket No. NHTSA 2001–11110–2.)

Mitsubishi recommended that for bucket seats the seat back centerline should be used as the reference, but the diagrams they submitted used the SgRP as the reference point. The Ford RFI also requested that S16.3.1.10, under the general provisions for the 5th percentile adult female test dummy seating positioning procedures, be amended to reference the SgRP for bucket seats.

The Advanced Air Bag Rule used ''the center of the seat cushion'' to position the 5th percentile female test dummy in the rigid barrier test and Plane B in the child protection tests. In the Mitsubishi petition for reconsideration of the Advanced Air Bag Rule, it asked for clarification on dummy position relative to the center of the seat cushion. Also in response to the Advanced Air Bag Rule, Toyota petitioned for Plane B to reference the seat's H-point. In the agency's December 2001 response to clarify the reference point, we defined

[2] Although the preamble made reference to the horizontal plane (66 FR 65376, 65395), the regulatory text did not require that the thighs be in this plane. Rather, it was required that the thighs maintain their position with respect to the horizontal plane (66 FR 65376, 65416 and 65418).

the center of the seat as being determined at the widest part of the seat cushion. We stated that we rejected Toyota's petition because the difference in lateral position between the H-point and the center of the seat, as we were defining it, would not be significant.

We believe that the current Mitsubishi petition raises a valid issue, and are amending the definition of the longitudinal centerline of a bucket seat cushion, which is used in the dummy seating positioning procedures (sometimes by reference to Plane B) for the 5th percentile adult female dummy and the positioning procedures for advanced air bag tests with a CRS. The amended definition now references the seating reference point (SgRP). There are current seat designs that lack symmetry, both in terms of seat cushion and seat back. This may become even more common with the proliferation of seat-mounted side air bags and seats with fully integrated belts. The argument that the difference between the middle of the widest part of the seat and the center of the designated seating position (H-point or SgRP) is not significant may not be valid with some current and future seat designs.

It is the agency's intent to have the 5th percentile adult female test dummy and the CRS placed in a normal lateral position. Therefore, S16.3.1.10 under the dummy seating positioning procedures for the 5th percentile adult female test dummy and S20.1.10 under the test procedures for the child safety tests are amended, for bucket seats, to reference the SgRP, which the manufacturers will provide to the agency.

We recognize that the amendments made to the barrier test that uses the 5th percentile adult female test dummy may be appropriate for incorporation into the barrier tests that use the 50th percentile adult male test dummy. However, as stated above, we also recognize the time sensitive nature of the petitions for reconsideration and the need to address the issues raised in those petitions. Therefore, we are not at this time incorporating such amendments into the barrier test that uses the 50th percentile adult male dummy, but may consider such changes at a later date.

B. Plane D and Plane C

''Plane D'' and ''Plane C,'' which are used to position test dummies in the out-of-position test procedures, are redefined to reference an axis based on the volumetric center of the folded and the volumetric center of the static inflated air bag. The December 2001 final rule had defined ''Plane D'' and ''Plane C'' by referencing the ''geometric center of the opening through which the air bag deploys. ''The agency stated in the preamble of the December 2001 final rule that ''[t]his would not necessarily be the same as the geometric center of the air bag cover. Rather, it would be the geometric center of whatever frame or casing is used to allow the air bag to deploy in a controlled manner.''

Toyota and Volkswagen petitioned the agency as a result of a lack of clarity with the regulatory text. The Ford RFI also asked for clarification on the target point as contained in S26.2 (driver out-of-position test Position 1—Chin on Module). Toyota asked if the geometric center is to be measured for the tear seam of the air bag door or for the opening through which the air bag deploys. Ford asked if the geometric center should be ''determined in three-dimensional space,'' or ''from a projection of the opening to a single plane parallel to the steering wheel rim or to the airbag reaction surface.'' Ford continued:

> If the cover of the airbag is ''adaptive'' to differing conditions; *e.g.* varying deployment path dependent upon resistance to bag opening, which ''opening'' should be used: the ''opening'' common to a normal deployment or the anticipated ''alternative opening'' for low risk deployment conditions?

Both Toyota and Volkswagen recommended amended language to clarify the reference point. Toyota suggested that the phrase of interest be changed to the ''point where the air bag door intersects the horizontal line traveling through the center point of the inflator.'' Volkswagen stated that in order to make the identification of the target point more objective in the 3-year-old and 6-year-old dummy tests, the regulatory text describing the target point should be amended to read the ''point determined by the perpendicular projection onto the instrument panel of the geometric center of the opening in the inflator module through which the air bag deploys into the occupant compartment.''

We agree that the regulatory text adopted in the December 2001 final rule is not sufficiently objective, and are establishing an objective method to transfer a point onto the air bag cover. The agency considered several methods for identifying this point and is adopting a method that relies on the volumetric center of the folded air bag and the volumetric center of the static inflated air bag (Static Inflated Air Bag Method).

One method considered was the use of high-speed film or video of the deploying bag in a static environment and without test dummies present to determine an axis of air bag deployment. However, in some cases the bag may not deploy in a uniform or repeatable manner, resulting in an unacceptable level of variability in the target point. Additionally, we have observed deployments where the cover deflects the bag and causes it to initially squeeze out along an axis away from the occupant towards the vehicle floor pan. This would result in a very low target point.

In developing a reference, our initial assumption was that the target point should be located somewhere on the air bag cover surface because the test dummy would be in a position to either be struck by the deploying air bag cover or by the air bag pushing through its cover into the passenger compartment. A target line could be defined as the intersection of a vehicle's vertical longitudinal plane, which bisects the air bag laterally, and the portion of the air bag cover surface that is displaced during air bag deployment. The target point would then be the mid-point of the target line. While this may be a relatively simple determination for a rigid door-type cover, it would be difficult for a flexible flap-type configuration because the portion of the cover displaced during deployment is hard to define. Also, the mid-point of the intersection of the air-bag cover with the vehicle longitudinal plane may have no relationship to the path the air bag takes when deploying.

Another method considered for defining the target point was to determine the unobstructed deployment path of the air bag into the passenger compartment (Clear Deployment Path Method). Toyota's recommendation for revision to the target point location involved the intersection of an imaginary axis or ''axis of deployment,'' with the outer surface of the air bag cover. Toyota recommended that the axis of deployment be defined by the centerline of the air bag inflator. This does not work well if the inflator is remotely located with respect to the air bag.

We have determined that a technique similar to the Clear Deployment Path Method is best for determining the target point. The technique adopted in this document, the Static Inflated Air Bag Method, is similar to the Clear Path Deployment Path Method in that the reference axis passes through the volumetric center of the folded air bag, but differs by also using the volumetric center of the static inflated air bag. Determination of the direction of the deployment axis is done by blocking the air bag vents and inflating the air bag. For air bags that vent through the bag

material, it may be necessary to seal the material to reduce the venting. The volumetric center of the static fully inflated air bag is the second point that the deployment axis passes through.

The intersection of this reference axis and the surface of the dash board or steering wheel hub is the point used to line-up the dummy for the low risk deployment tests. When marking a target point at this intersection, we will allow a tolerance of ±6 mm (±0.2 in). A reference point on the dummy is aligned with vertical and horizontal planes that pass through the previously defined dash board or steering wheel hub target point. We will allow the reference planes a tolerance of ±10 mm (±0.4 in) about the target point. This is in recognition that the target point placement on the dash board or steering wheel hub will have inherent variability as will the placement of the dummy reference point on the target.

Key to this method is that the air bag must be inflated with sufficient pressure that no additional pressure alters the location of the center of volume. In addition, the inflated air bag must be stationary. Thus, it may be necessary to dampen any inherent oscillation. In reality, the agency anticipates that manufacturers will provide the target point based on their computer based drawings of the air bag system and surrounding structure.

The Static Inflated Air Bag Method provides a more objective procedure and more clearly defines the previous intent of the agency when it specified the ''opening through which the air bag deploys.'' Furthermore, the Static Inflated Air Bag Method does not have the major disadvantages of the other methods discussed.

The agency will monitor the deployment path of air bags using high-speed cinematography during compliance and research test programs to confirm that our method continues to adequately represent the trajectory of the air bag itself.

C. Point 1 (Low Risk Deployment Test)

The December 2001 final rule redefined the location of ''Point 1'' to place it in a location relative to the upper edge of the chest jacket rather than the center of the chest/rib plate. (''Point 1'' is a point on the child dummy's chest used for positioning the dummy in the low risk deployment tests under S22.4 and S24.4.) Toyota stated that the new location of ''Point 1'' on the flexible jackets of the 3-year-old and 6-year-old dummies will result in variability. Further, they petitioned that because this change was made without sufficient notice, the regulatory text should revert back to that specified in the Advanced Air Bag final rule.

In the preamble to the December 2001 final rule we decided against measuring ''Point 1'' relative to fixed hardware because we determined that degree of specificity is not required, and also there is very little exposed fixed hardware from which to reference. While the chest jacket moves about the dummy's ribcage the upper edge of the chest jacket remains in largely the same location, making it a preferable point of reference. (66 FR 65376, 65395.) Furthermore, ''Point 1'' was defined in the Advanced Air Bag Rule using the chest/rib plate, but was redefined to address concerns raised by manufacturers' during the December 2000 technical workshop. Based on the above, we are denying Toyota's petition to amend the definition of ''Point 1.''

D. ''Air Bag System''

DaimlerChrysler requested clarification of two issues pertaining to the phrase ''deploy the right front outboard frontal air bag system,'' as it appears in the test procedures for the low risk deployment tests (S20.4.9, S22.4.4 and S24.4.4). First, DaimlerChrysler asked if it is the agency's intent to have, in addition to the air bag, other pyrotechnic devices such as seat belt pretensioners, inflatable seat belts, inflatable knee bolsters, etc. also deploy. Second, they point out that if the reference to ''right'' air bags is intended to signify passenger-side air bags, this would not be appropriate for right hand drive vehicles.

While neither ''air bag [system]'' or ''inflatable restraint [system]'' is defined in FMVSS No. 208 or any other place in 49 CFR Part 571, the intent of the term ''air bag'' is to describe the components that make up the passenger-side dash-mounted and driver-side steering wheel hub-mounted, inflatable restraints used for occupant protection in a frontal impact. This does not refer to any other pyrotechnic system such as a belt pretensioner or inflatable knee bolster. We are not aware of other pyrotechnic devices contemplated for vehicles in frontal impacts, such as inflatable belts or inflatable seat components intended to reduce occupant submarining, but such devices would not be included in the term ''air bag.''

The agency has no data on the effect deploying devices other than the frontal air bag will have on the Advanced Air Bag Rule low risk deployment test procedure. Nor do we have any data on the performance of any of these other pyrotechnic devices for out-of-position occupants in the field. We are concerned that inflatable knee bolsters could negatively impact the repeatability of the low risk deployment tests, even though they would inflate in a real crash. Only the infant low risk deployment test is conducted with the seat belt fastened. Accordingly, any inflatable restraints incorporated into the seat belt should not impact the test. In order to maximize repeatability, we have decided that only the frontal air bag should be deployed in the low risk deployment tests. More specifically, only the dash or steering wheel mounted air bag should be deployed in these tests. We do not believe that the regulatory text should be amended to specify this because there may be a future frontal air bag mounting location other than the dash or steering wheel.

The agency also notes that for the suppression option, only the frontal air bag (dash or steering wheel mounted) should be suppressed. Again, we have no data to determine if other pyrotechnic devices should be suppressed in the suppression compliance option. These other devices should be suppressed at the option of the manufacturer, who should be in a position to determine the relative merits of suppression or deployment.

The DaimlerChrysler petition also indicated a concern with the reference to the ''right front outboard frontal air bag'' in S20.4.9, 22.4.4, and 24.4.4. The more appropriate term and the term used elsewhere is ''passenger air bag.'' Accordingly, we have replaced ''right front outboard'' with ''front outboard passenger'' in these sections. For consistency the regulatory text has also been amended to replace the term ''left front outboard frontal air bag'' with ''driver frontal air bag'' in S26.4.

VII. Miscellaneous Issues

A. Separation in Test Speed Between the Low Risk Deployment Indicant and the Unbelted Barrier Test

DaimlerChrysler petitioned the agency to amend FMVSS No. 208 such that a 14 km/h (9 mph) separation exists between the low risk deployment indicant test (S22.5) and the Unbelted Barrier Test (S5.1.2(b) and S16.1(b)). The petition is denied. DaimlerChrysler had previously requested similar amendments in comments to the Supplementary Notice of Proposed Rulemaking (SNPRM) (64 FR 60556; November 5, 1999) and comments to the Advanced Air Bag Rule.[3]

In the SNPRM, the agency proposed a 29 km/h (18 mph) indicant test. We

[3] See, DaimlerChrysler's comments and petitions at NHTSA–1999–6407–44 and NHTSA–2001–11110–7.

further proposed a minimum unbelted test speed of 29 km/h (18 mph) and stated we were considering a maximum unbelted test speed of between 40 and 48 km/h (25 and 30 mph). In DaimlerChrysler's comments to the SNPRM, it requested that the only unbelted test speed should be 40 km/h (25 mph). It further commented that the indicant test should be at a speed of 24 km/h (15 mph) so that a 16 km/h (10 mph) ''gray zone'' would exist between the two tests. DaimlerChrysler and other commenters stated that there was a conflict between meeting the low risk requirements and meeting the unbelted rigid barrier test with the 50th percentile adult male test dummies.

Air bags designed to vary their performance in response to sensed differences in crash severity or other conditions have a range of conditions in which the air bag changes from one level of performance to another; *i.e.* ''gray zones.'' At very low speeds, there may be uncertainty within a gray zone about whether the air bag will deploy or not deploy, and at higher speeds, there will be uncertainty about which level of performance will be triggered. Manufacturers stated that in many cases a first stage air bag that would not harm children would not be sufficient to satisfy the injury criteria performance limits for the 50th percentile adult male test dummy in a test at 40 km/h (25 mph) and may be insufficient to certify compliance in a 29 km/h (18 mph) test. In response to DaimlerChrysler and other commenters, the Advanced Air Bag Rule reduced the indicant test speed to 26 km/h (16 mph) and selected a speed range for the unbelted test of 32–40 km/h (20–25 mph). In the preamble to the Advanced Air Bag Rule we stated that we believed the speed difference (6 km/h gray zone) should be sufficient to resolve manufacturers' concerns.

In DaimlerChrysler's petition for reconsideration to the Advanced Air Bag Rule, it once again requested additional separation between the indicant and low risk deployment tests. On this occasion the request was reduced to 14 km/h (9 mph) of separation. The basis for its request was the same as when it commented on the SNPRM. In the preamble of the December 18, 2001 final rule, the agency stated that DaimlerChrysler was basically arguing again for an unbelted test speed of 40 km/h (25 mph) and denied the petition. However the December 2001 final rule did limit the test dummy size for the indicant test on the passenger side to the 5th percentile adult female test dummy. We stated:

> Thus, if a vehicle manufacturer faces a situation where deployment of both stages of a dual stage air bag is necessary to meet the unbelted barrier test requirements for 50th percentile adult male dummies in a 32 km/h (20 mph) crash test, and, because of gray zone issues, it is possible that both stages may fire in a 26 km/h (16 mph) crash, the manufacturer can design its air bag system, using occupant recognition technology, so that only the first stage will fire in the presence of 5th percentile adult female dummies in crash tests at these severity levels. (66 FR 65376, 65384.)

In DaimlerChrysler's petition for reconsideration to the December 2001 final rule, it again requested additional test speed separation and repeated its desire for a 14 km/h (9mph) separation. It also stated that the agency misinterpreted DaimlerChrysler's petition to the Advanced Air Bag Rule, in that an unbelted test speed of 40 km/h (25 mph) was only one potential result of a 14 km/h (9mph) test speed separation. It gave the example of conducting the low risk deployment indicant test at 23 km/h (14 mph) with a minimum test speed for the unbelted test of 37 km/h (23 mph). It further stated that using the 5th percentile adult female test dummy in the indicant test provides no relief because the problem at hand is one of crash severity sensing and not occupant classification.

The agency may have provided a single interpretation of DaimlerChrysler's previous petition for a 14 km/h (9 mph) separation request by viewing it as a request for a 40 km/h (25 mph) unbelted test. But given an unbelted test of 40 km/h (25 mph), any other interpretation that keeps the minimum unbelted test below 40 km/h (25 mph) would result in a low risk deployment indicant test speed of less than 26 km/h (16 mph).

The NPRM for the Advanced Air Bag Rule (63 FR 49958; September 18, 1998) proposed 32 km/h (20 mph) as the impact speed for the low risk deployment indicant test. The SNPRM proposed 29 km/h (18 mph) and the Advanced Air Bag Rule required 26 km/h (16 mph) for the low risk deployment indicant test. Any further reduction in the indicant test speed may result in a further reduction in the benefits to children and adults who happen to be out-of-position in a crash above this threshold speed. This reduction may create the situation where no bag deploys during the indicant test.

DaimlerChrysler's petition provides no new information and makes no new arguments related to the issue of an appropriate ''gray zone'' separating the low risk deployment indicant test and the unbelted test. Therefore, DaimlerChrysler's petition is denied.

B. Test Procedures for Automatic Suppression Requirements (Belt Cinching)

In compliance testing for the automatic suppression features with CRSs under S20.2, S22.2, and S24.2, the belted tests require the seat belt to be cinched down at 134 N (30 lb) as measured at the outboard section of the lap belt. Some manufacturers place a button (latchplate button) on belts, which can prevent the belt from being cinched down to the required level. These buttons are placed on belts to keep the buckle from sliding down on the unsecured belt, ensuring that the latchplate remains accessible by restricting the movement of the latchplate on the seat belt. In the December 2001 final rule, we stated that:

> While we are not adding a provision to the regulatory text, we do intend to remove the plastic button if it prevents us from reaching a 134 N (30 lbf) force. This button is not required under any Federal motor vehicle safety standards. (66 FR 65376, 65389.)

DaimlerChrysler petitioned the agency to require that no compliance test procedure detailed in S20.2, S22.2, or S24.2 allow the removal of latchplate buttons. DaimlerChrysler claimed that this button is necessary to meet the requirement of S7.4.4, *Latchplate access,* of FMVSS No. 208, and that testing requiring the removal of the button ''may force manufacturers to certify to a non-saleable condition.''

DaimlerChrysler's petition with regard to the latchplate button is denied. It is critical to achieve the cinch down load of 134 N (30 lbf) in order to test the suppression systems in what we have found to be a real world configuration. Keeping the latchplate button (or webbing loop in the case of GM vehicles) will, in some instances, not allow this force to be achieved. However, for many vehicles the button is not a problem. Removing the button to allow achievement of the required cinch down load allows for the agency to have a more objective requirement.

Further, removal of the button for suppression testing does not result in vehicle certification in a ''non-saleable condition.'' Many other test procedures in the FMVSSs require modifications to the vehicle as a specific aspect of performance. For example, FMVSS No. 207, *Seating systems,* requires bracing to be added between the seat base and seat back before pulling on the seat to test the strength of the seat anchorage to the vehicle. The cinch force required for the suppression test is to test a ''worst case scenario,'' and removal of the latchplate button simply allows the belt to be

cinched to force levels that reflect this scenario.

C. Appendix A of FMVSS No. 208

The Alliance, with emphasis added from Mitsubishi, Volkswagen, and Porsche, petitioned for changes to Appendix A of FMVSS No. 208. Appendix A lists which car beds and CRSs the agency may use to test the suppression system of a vehicle. The Alliance, Volkswagen, and Porsche requested that the list include the production dates for the CRSs. The Alliance stated that alterations to the CRS list should only be made if the alteration will affect certification of a vehicle. Mitsubishi, Volkswagen, and Porsche believe that surrogate devices being developed at UMTRI should replace the list of CRSs as soon as possible. Mitsubishi requested a 2-year phase-in for changes to Appendix A and stated that it believes FMVSS No. 213, *Child restraint systems,* could specify the weight and shell dimensions of CRSs. However they have not petitioned to have FMVSS No. 213 amended.

As noted earlier, Evenflo has also petitioned the agency to remove certain Evenflo seats from Appendix A and replace them with newer, LATCH models. Evenflo states that the older seats should be removed because only LATCH seats have been manufactured since September 1, 2002.

A recent analysis by the agency found that about one fourth of the CRSs currently in Appendix A are no longer available. This is indicative of the dynamic nature of the CRS industry. Because of the nature of this industry, NHTSA has decided to perform an annual review of Appendix A with the objective of making appropriate updates. The number of CRSs in Appendix A may change slightly as it is updated. This is because the review may identify different trends in the use of CRSs from prior periods. Because it is impossible to know the nature of these trends, we cannot commit to increasing or decreasing the number of restraints in Appendix A by a set number. As a general guideline, however, we believe the number of CRSs should not vary by more than 10–20 percent absent dramatic changes in the design of restraints.

In deciding whether to amend Appendix A, NHTSA will consider a number of factors, such as whether a particular restraint has been a high volume model, whether it has mass and dimensions that are representative of many restraints on the market, whether its mass and dimensions represent outliers, and whether a variety of restraint manufacturers are represented in the appendix. This approach will allow us to limit Appendix A to those restraints that represent large portions of the CRS market, while including exceptionally large or small restraints. We believe a combination of restraints is needed to assure the robustness of automatic suppression systems under real world conditions.

We believe this annual review will serve to maintain a spectrum of CRSs in the appendix that are representative of the CRS population in production at that time. This routine assessment will ensure that only relatively current restraints will be used for compliance testing. It will also enable NHTSA to determine the availability of the CRSs and determine any change in design, other than those that are purely cosmetic. Although NHTSA will review the appendix every year, we may not amend it annually. In those years where we tentatively conclude that the appendix needs updating, we will publish an NPRM with a 30 day comment period. This shorter comment period will allow us to issue a final rule expeditiously, reducing the possibility that a proposed restraint will no longer be available for purchase on the date of publication.

Even with diligent review of Appendix A, there may be rare occasions when a new addition to the list becomes unavailable or undergoes a significant design change between the time an amendment is proposed and when it is issued as a final rule. Under this limited circumstance, the agency would not use the unavailable or altered CRS for compliance testing and the manufacturers would likewise be relieved of any burden to procure the CRS or use it to test for suppression. Conversely, if a CRS becomes unavailable or is altered after publication of the list, we will assume that the manufacturer was able to acquire the CRS and has it available for certification testing. The effect of this requirement is that vehicle manufacturers and NHTSA will need to procure all child restraints listed in Appendix A not already in their possession when the list is published.

The preamble to the December 2001 final rule stated that, to provide sufficient lead time for vehicle compliance, any future changes to Appendix A would have an effective date of one year after publication of the amended list. 66 FR 65376, 65390. This means that after a new CRS appears in Appendix A, manufacturers would not have to certify compliance of their vehicles when using that restraint for a full year. We also stated that ''early compliance'' with the amended list (as opposed to the previous list) was permissible so long as the manufacturer notified the agency that it was exercising this option.

We are concerned that a two-year lead time could result in a greater percentage of the CRSs in Appendix A being removed from production before the amended appendix takes effect. Additionally, the one-year lead time is consistent with the agency's intent that occupant detection systems be robust and able to detect any CRS, including those that are relatively new to the market. However, in recognition that manufacturers need to know what CRSs will be included as they design their new models, we have decided to slightly change our position on lead time by making any changes to Appendix A effective for the next model year introduced one year after publication of the final rule modifying Appendix A. (Consistent with our past practice, for this purpose, the model year begins on September 1 of the prior calendar year.) This will result in a one to two year lead time. For example, if Appendix A were updated March 1, 2004, the revised appendix would become effective September 1, 2005, a period of eighteen months after publication. We believe this approach will allow manufacturers to tie their certification to the automatic suppression requirements with the introduction of a new model year.

However, as explained further below, we are concerned about the fact that CRSs with LATCH (Lower Anchors and Tethers for Children) are increasingly used in the real world for transporting children. There have been no CRSs with LATCH included in Appendix A since the initial publication of the May 2000 Advanced Air Bag Rule. Therefore, for this final rule, we are taking exception to our future process and are requiring that the effective date for the CRSs listed in this notice be September 1, 2004.

The September 1, 2004 effective date for Appendix A should not present a problem for manufacturers. By September 1, 2004, LATCH attachments will have been required for two years, as established under the March 5, 1999 final rule (64 FR 10786). Vehicle manufacturers have been aware of the changes to CRSs and should have been testing accordingly. Even if the CRSs used for testing by the manufacturers were not the models in Appendix A, the LATCH mechanisms should be substantially similar. As such, providing less than one year of lead time for compliance with the amended appendix is not unduly burdensome.

We have determined that Alliance's petition for Appendix A to be altered

only when a change to a CRS would affect vehicle certification is not practical from either a regulatory or manufacturing perspective. The agency's knowledge of particular suppression systems, typically, is not sufficient to allow us to make such determinations. Likewise, limiting changes to the appendix based on whether a CRS would affect vehicle certification could result in manufacturers designing systems that only test obsolete restraints. While such a scenario may not prove particularly problematic from a compliance perspective, it could prove quite risky in the real world. The intent of requiring automatic suppression systems to detect the presence of CRSs that are on the market is to ensure that the systems actually work in the real world. If a change to a CRS were clearly cosmetic, such as color scheme or upholstery, the list would not be affected.

We continue to believe that the CRS surrogates under development by UMTRI are insufficiently representative of the CRS market to adopt at this time. The surrogates do not attempt to represent dimensional outliers. As such, they cannot ensure the robustness of an automatic suppression system under real world conditions. Additionally, without amending FMVSS No. 213 to require restraints to be dimensionally similar to the surrogates, there is no assurance that the surrogates will continue to represent even the average dimensions of restraints on the market. We have already determined that it is inappropriate to amend FMVSS No. 213 to accommodate the requirements of FMVSS No. 208.

We recognize that Appendix A is not perfect. Indeed, regularly updating the appendix is a significant amount of work for the agency. Nevertheless, at this time there is no alternative that will test whether automatic suppression systems are capable of recognizing those child restraints that are likely to be used by the owners of vehicles with advanced air bags.

We do find that the industry request that we identify specific CRS production dates has merit. This will allow for a more precise identification of which CRSs may be used in compliance testing. However, in future amendments, Appendix A will, as a general matter, only include the production start dates, since the agency is in no position to know, beforehand, when a restraint manufacturer will cease production of a particular model. The fact that a particular restraint may not be produced for the entire time that it is included in Appendix A underscores the need for vehicle manufacturers to procure all restraints in the appendix promptly after the revised appendix is published. The agency may specify a production end date in an amendment to the appendix if a CRS undergoes a significant change without a change in the name and model number and the agency wishes to keep the older version on the list.

Beginning in September 2000, vehicle manufacturers were required to begin a phase-in of vehicles with child restraint anchorage systems, consisting of a tether anchorage and two lower anchorages. (See FMVSS No. 225.) CRS manufacturers began selling CRSs with LATCH to utilize these vehicle anchorages, and as of September 1, 2002, all CRSs must have LATCH. As noted by Evenflo, all child restraints currently manufactured, other than booster seats, harnesses, and the car bed, are required to have LATCH. Accordingly, the agency believes it is imperative to add some LATCH seats to the appendix and to have them tested in the next model year. When the amendments made to Appendix A in this document are effective, September 1, 2004, CRSs with LATCH will have been required for almost two years. To reflect this change in the market, two new LATCH CRSs are included in the amended Appendix A. We have decided against replacing all of the seats other than booster seats and the car bed with new LATCH seats because to do so would dramatically amend the appendix and would fail to account for those non-LATCH seats still widely in use. As subsequent amendments are made to the appendix, these older seats will be replaced to account for their decreased presence in vehicles.

In a related issue, we note that many child restraint manufacturers place an expiration date, typically six years, on their seats. Given the intent of child restraint manufacturers that the restraints not be used after their expiration date, this information will also be considered by the agency in Appendix A amendment proposals.

Appendix A requires that vehicles certified to FMVSS No. 208 S19, S21, or S23 and produced between December 18, 2001 and September 1, 2004 may be tested with one car bed, ten rear facing child restraints, seven forward facing child restraints, and four booster seats for a possible 22 child restraints. All of the child restraints used in testing must be manufactured after December 1, 1999.

As of September 1, 2004, three of the rear facing child restraints will not be used in testing (designated by ''Terminated''), while two additional forward facing child restraints are added to the list (designated by ''Effective''). Thus, for vehicles produced as of September 1, 2004, up to 21 child restraints may be used in testing.

D. Neck and Chest Injury Criteria

DaimlerChrysler petitioned the agency to use neck injury criteria (Nij) only in static out-of-position tests and not in belted and unbelted in-position tests. DaimlerChrysler also petitioned the agency to use a threshold of 73 g for the 5th percentile adult female test dummy chest acceleration.

In comments to the SNPRM (NHTSA–1999–6407–44) and in a petition for reconsideration on the Advanced Air Bag Rule (NHTSA–2000–7013–022), DaimlerChrysler asked for this change to the chest acceleration performance limit as well as expressed a desire for the elimination of Nij from the regulation.

In the December 2001 final rule, we denied both of DaimlerChrysler's petitions. In denying the petition for a 73 g threshold, the agency relied on crash tests in which the lower thorax/abdomen of the 5th percentile adult female test dummy contacted the steering wheel rim, producing high chest g measurements and low chest deflection. Chest deflection, measured only at the central upper thorax, and chest acceleration with a performance limit of 73 g would not identify these cases of steering wheel rim contact as injurious, whereas a performance limit of 60 g would. See 66 FR 65376, 65398. The agency also determined that the Nij formula incorporates the relevant measurements for evaluating neck injury during frontal impact and that much of the automotive industry has accepted Nij as a valid injury measurement. See 66 FR 65376, 65399.

DaimlerChrysler has not provided any new information with respect to these two issues in its current petition for reconsideration. The agency still concurs with our previous determination and therefore is denying DaimlerChrysler's petition with respect to the chest g and Nij measurements.

E. Technical Corrections of the Regulatory Text

S14.3(a) contains a typographical error which is corrected in this document. As correctly identified in the heading, this section applies to vehicles manufactured on or after September 1, 2007 and before September 1, 2010. The regulatory text incorrectly states that it applies to vehicles manufactured on or before September 1, 2007 and before September 1, 2010. This error has been corrected.

In the December 18, 2001 final rule the reference to ''Plane A'' in S20.2.1.2

was inadvertently changed to ''Plane.'' This error has been corrected.

The dummy positioning procedures for the 3-year-old test dummy, 6-year-old test dummy, and the 5th percentile adult female test dummy have been amended to specify a degree of latitude when positioning a dummy in reference to its midsagittal plane. This tolerance is in recognition that the placement of the dummy reference line coincident to a plane or point on the vehicle will have inherent variability.

VIII. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's regulatory policies and procedures. This rulemaking document has not been reviewed by the Office of Management and Budget under E.O. 12866, ''Regulatory Planning and Review,'' because it was not deemed significant under the executive order. The rulemaking action has also been determined to not be significant under the Department's regulatory policies and procedures. The agency has concluded that the impacts of today's amendments are so minimal that a regulatory evaluation is not required. Rather, readers who are interested in the overall costs and benefits of advanced air bags are referred to the agency's Final Economic Assessment for the May 2000 final rule (Docket No. NHTSA–2000–7013–02). NHTSA has determined that the costs and benefits analysis provided in that document are unaffected by today's rule.

B. Regulatory Flexibility Act

We have considered the effects of this rulemaking action under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) This action will not have a significant economic impact on a substantial number of small businesses because it does not significantly change the requirements of the May 2000 final rule or the December 2001 final rule. Small organizations and small governmental units will not be significantly affected since the potential cost impacts associated with this rule remain unchanged from the December 2001 final rule.

C. National Environmental Policy Act

NHTSA has analyzed these amendments for the purposes of the National Environmental Policy Act and determined that they will not have any significant impact on the quality of the human environment.

D. Executive Order 13132 (Federalism)

The agency has analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 and has determined that it does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The final rule has no substantial effects on the States, or on the current Federal-State relationship, or on the current distribution of power and responsibilities among the various local officials.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 requires 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 for inflation with base year of 1995). While the May 2000 final rule is likely to result in over $100 million of annual expenditures by the private sector, today's final rule makes only small adjustments to the December 2001 rule, which, in turn, made only small adjustments to the May 2000 rule. Accordingly, this final rule will not result in a significant increase in cost to the private sector.

F. Executive Order 12778 (Civil Justice Reform)

This final rule does not have any retroactive effect. Under section 49 U.S.C. 30103, whenever a Federal motor vehicle safety standard is in effect, a state may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the state requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 30161 sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

G. Paperwork Reduction Act

Under the Paperwork Reduction Act 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. This rule does not establish any new information collection requirements.

H. Regulation Identifier Number (RIN)

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

I. Plain Language

Executive Order 12866 requires each agency to write all rules in plain language. Standard No. 208 is extremely difficult to read as it contains multiple cross-references and has retained all of the requirements applicable to vehicle of different classes at different times. Because portions of today's rule amend existing text, much of that complexity remains. Additionally, the availability of multiple compliance options, differing injury criteria and a dual phase-in have added to the complexity of the regulation, particularly as the various requirements and options are accommodated throughout the initial phase-in. Once the initial phase-in is complete, much of the complexity will disappear. At that time, it would be appropriate to completely revise Standard No. 208 to remove any options, requirements, and differentiations as to vehicle class that are no longer applicable.

J. Executive Order 13045

Executive Order 13045 applies to any rule that: (1) Is determined to be ''economically significant'' as defined under E.O. 12866, and (2) concerns an environmental, health or safety risk that NHTSA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

This rulemaking directly involves decisions based on health risks that disproportionately affect children, namely, the risk of deploying air bags to children. However, this rulemaking serves to reduce, rather than increase, that risk.

K. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement

Act (NTTAA) requires NHTSA to evaluate and use existing voluntary consensus standards [4] in its regulatory activities unless doing so would be inconsistent with applicable law (*e.g.*, the statutory provisions regarding NHTSA's vehicle safety authority) or otherwise impractical. In meeting that requirement, we are required to consult with voluntary, private sector, consensus standards bodies. Examples of organizations generally regarded as voluntary consensus standards bodies include the American Society for Testing and Materials (ASTM), the Society of Automotive Engineers (SAE), and the American National Standards Institute (ANSI). If NHTSA does not use available and potentially applicable voluntary consensus standards, we are required by the Act to provide Congress, through OMB, an explanation of the reasons for not using such standards.

The agency is not aware of any new voluntary consensus standards addressing the changes made to the May 2000 final rule or the December 2001 final rule as a result of this final rule.

L. Privacy Act

Anyone is able to search the electronic form of all submissions received into any of our dockets by the name of the individual submitting the comment or petition (or signing the comment or petition, 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) or you may visit *http://dms.dot.gov.*

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

■ In consideration of the foregoing, NHTSA amends 49 CFR Chapter V as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

■ 1. The authority citation for part 571 of Title 49 continues to read as follows:

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

[4] Voluntary consensus standards are technical standards developed or adopted by voluntary consensus standards bodies. Technical standards are defined by the NTTAA as ''performance-based or design-specific technical specifications and related management systems practices.'' They pertain to ''products and processes, such as size, strength, or technical performance of a product, process or material.''

■ 2. Section 571.208 is amended by revising S14.3(a), S16.2.10, S16.3.1, S16.3.2, S16.3.3, S20.1.2, S20.1.9, S20.1.10, S20.2.1.3, S20.3.1, S20.4.1, S20.4.4, S20.4.9, S22.1.2, S22.1.7, S22.2.2.1, S22.2.2.3, S22.2.2.4, S22.2.2.5, S22.2.2.6, S22.2.2.7, S22.3.1, S22.4.1, S22.4.2, S22.4.3, S22.4.4, S24.1.2, S24.2.3, S24.3.1, S24.4.1, S24.4.2, S24.4.3, S24.4.4, S26.2.2, S26.2.3, S26.2.4.1, S26.3.1, S26.3.4.1, S26.3.6, S26.3.7, S26.4, and Appendix A, and by adding figure 13 to read as follows:

§ 571.208 Standard No. 208; Occupant crash protection.

* * * * *

S14.3(a) For vehicles manufactured for sale in the United States on or after September 1, 2007, and before September 1, 2010, a percentage of the manufacturer's production, as specified in S14.3.1, shall meet the requirements specified in S14.5.1(b) (in addition to the other requirements of this standard).

* * * * *

S16.2.10 *Driver and passenger seat set-up.*

S16.2.10.1 *Lumbar support adjustment.* Position adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position.

S16.2.10.2 *Other seat adjustments.* Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. Position any adjustable head restraint in the lowest and most forward position.

S16.2.10.3 *Seat position adjustment.* If the passenger seat does not adjust independently of the driver seat, the driver seat shall control the final position of the passenger seat.

S16.2.10.3.1 Using only the controls that primarily move the seat and seat cushion independent of the seat back in the fore and aft directions, move the seat cushion reference point (SCRP) to the rearmost position. Using any part of any control, other than those just used, determine the full range of angles of the seat cushion reference line and set the seat cushion reference line to the middle of the range. Using any part of any control other than those that primarily move the seat or seat cushion fore and aft, while maintaining the seat cushion reference line angle, place the SCRP to its lowest position.

S16.2.10.3.2 Using only the control that primarily moves the seat fore and aft, move the seat reference point to the full forward position.

S16.2.10.3.3 If the seat or seat cushion height is adjustable, other than by the controls that primarily move the seat or seat cushion fore and aft, determine the maximum and minimum heights of the seat reference point, while maintaining, as closely as possible, the angle determined in S16.2.10.3.1. Set the seat reference point at the midpoint height with the seat cushion reference line angle set as closely as possible to the angle determined in S16.2.10.3.1. Mark location of the seat for future reference.

* * * * *

S16.3.1 *General provisions and definitions.*

S16.3.1.1 All angles are measured with respect to the horizontal plane unless otherwise stated.

S16.3.1.2 The dummy's neck bracket is adjusted to align the zero degree index marks.

S16.3.1.3 The term ''midsagittal plane'' refers to the vertical plane that separates the dummy into equal left and right halves.

S16.3.1.4 The term ''vertical longitudinal plane'' refers to a vertical plane parallel to the vehicle's longitudinal centerline.

S16.3.1.5 The term ''vertical plane'' refers to a vertical plane, not necessarily parallel to the vehicle's longitudinal centerline.

S16.3.1.6 The term ''transverse instrumentation platform'' refers to the transverse instrumentation surface inside the dummy's skull casting to which the neck load cell mounts. This surface is perpendicular to the skull cap's machined inferior-superior mounting surface.

S16.3.1.7 The term ''thigh'' refers to the femur between, but not including, the knee and the pelvis.

S16.3.1.8 The term ''leg'' refers to the lower part of the entire leg, including the knee.

S16.3.1.9 The term ''foot'' refers to the foot, including the ankle.

S16.3.1.10 The longitudinal centerline of a bucket seat cushion is defined by a vertical plane that passes through the SgRP and is parallel to the longitudinal centerline of the vehicle.

S16.3.1.11 For leg and thigh angles, use the following references:

S16.3.1.11.1 *Thigh*—a straight line on the thigh skin between the center of the 1/2–13 UNC–2B tapped hole in the upper leg femur clamp (see drawings 880105–504 (left thigh) and 880105–505 (right thigh), upper leg femur clamp) and the knee pivot shoulder bolt (part 880105–527 in drawing 880105–528R & 528L, sliding knee assembly without potentiometer).

S16.3.1.11.2 *Leg*—a straight line on the leg skin between the center of the ankle shell (parts 880105–609 & 633 in drawing 880105–660, ankle assembly)

and the knee pivot shoulder bolt (part 880105–527 in drawing 880105–528R & 528L, sliding knee assembly without potentiometer).

S16.3.1.12 The term ''seat cushion reference point'' (SCRP) means a point placed 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 used as a guide in positioning the seat.

S16.3.1.13 The term ''seat cushion reference line'' means a line on the side of the seat cushion, passing through the seat cushion reference point, whose projection in the vehicle vertical longitudinal plane is straight and has a known angle with respect to the horizontal.

S16.3.2 *Driver dummy positioning.*

S16.3.2.1 *Driver torso/head/seat back angle positioning.*

S16.3.2.1.1 With the seat in the position determined in S16.2.10.3.3, use only the control that primarily 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 S16.2.10.3.1, for the final forward position when measuring the pelvic angle as specified in S16.3.2.1.11. The seat cushion reference 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.

S16.3.2.1.2 Fully recline the seat back, if adjustable. Install the dummy into the driver's seat, such that when the legs are positioned 120 degrees to the thighs, the calves of the legs are not touching the seat cushion.

S16.3.2.1.3 *Bucket seats.* Place the dummy on the seat cushion so that its midsagittal plane is vertical and coincides with the vertical longitudinal plane through the center of the seat cushion, within ±10 mm (±0.4 in).

S16.3.2.1.4 *Bench seats.* Position the midsagittal plane of the dummy vertical and parallel to the vehicle's longitudinal centerline and aligned within ±10 mm (±0.4 in) of the center of the steering wheel rim.

S16.3.2.1.5 Hold the dummy's thighs down and push rearward on the upper torso to maximize the dummy's pelvic angle.

S16.3.2.1.6 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. Push rearward on the dummy's knees to force the pelvis into the seat so there is no gap between the pelvis and the seat back or until contact occurs between the back of the dummy's calves and the front of the seat cushion.

S16.3.2.1.7 Gently rock the upper torso laterally in a side to side motion three times through a ±5 degree arc (approximately 51 mm (2 in) side to side).

S16.3.2.1.8 If needed, extend the legs slightly so that the feet are not in contact with the floor pan. Let the thighs rest on the seat cushion to the extent permitted by the foot movement. Keeping the leg and the thigh in a vertical plane, place the foot in the vertical longitudinal plane that passes through the centerline of the accelerator pedal. Rotate the left thigh outboard about the hip until the center of the knee is the same distance from the midsagittal plane of the dummy as the right knee ±5 mm (±0.2 in). Using only the control that primarily moves the seat fore and aft, attempt to return the seat to the full forward position. If either of the dummy's legs first contacts the steering wheel, then adjust the steering wheel, if adjustable, upward until contact with the steering wheel is avoided. If the steering wheel is not adjustable, separate the knees enough to avoid steering wheel contact. Proceed with moving the seat forward until either the leg contacts the vehicle interior or the seat reaches the full forward position. (The right foot may contact and depress the accelerator and/or change the angle of the foot with respect to the leg during seat movement.) If necessary to avoid contact with the vehicles brake or clutch pedal, rotate the test dummy's left foot about the leg. If there is still interference, rotate the left thigh outboard about the hip the minimum distance necessary to avoid pedal interference. If a dummy leg contacts the vehicle interior before the full forward position is attained, position the seat at the next detent where there is no contact. If the seat is a power seat, move the seat fore and aft to avoid contact while assuring that there is a maximum of 5 mm (0.2 in) distance between the vehicle interior and the point on the dummy that would first contact the vehicle interior. If the steering wheel was moved, return it to the position described in S16.2.9. If the steering wheel contacts the dummy's leg(s) prior to attaining this position, adjust it to the next higher detent, or if infinitely adjustable, until there is 5 mm (0.2 in) clearance between the wheel and the dummy's leg(s).

S16.3.2.1.9 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. 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 S16.2.9. 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 S16.2.9 and the point of contact on the dummy.

S16.3.2.1.10 If it is not possible to achieve the head level within ±0.5 degrees, minimize the angle.

S16.3.2.1.11 Measure and set the dummy's pelvic angle using the pelvic angle gauge (drawing TE–2504, incorporated by reference in 49 CFR Part 572, Subpart O of this chapter). The angle shall be set to 20.0 degrees ±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 S16.3.2.1.9 and S16.3.2.1.10.

S16.3.2.1.12 If the dummy is contacting the vehicle interior after these adjustments, using only the control that primarily moves the seat fore and aft, move the seat rearward until there is a maximum of 5 mm (0.2 in) between the contact point of the dummy and the interior of the vehicle or if it has a manual seat adjustment, to the next rearward detent position. If after these adjustments, the dummy contact point is more than 5 mm (0.2 in) from the vehicle interior and the seat is still not in its forwardmost position, move the seat forward until the contact point is a maximum of 5 mm (0.2 in) from the vehicle interior, or if it has a manual seat adjustment, move the seat to the closest detent position that causes no contact, or until the seat reaches its forwardmost position, whichever occurs first.

S16.3.2.2 *Driver foot positioning.*

S16.3.2.2.1 If the vehicle has an adjustable accelerator pedal, adjust it to

the full forward position. If the heel of the right foot can contact the floor pan, follow the positioning procedure in (a). If not, follow the positioning procedure in (b).

(a) Rest the right foot of the test dummy on the undepressed accelerator pedal with the rearmost point of the heel on the floor pan in the plane of the pedal. If the foot cannot be placed on the accelerator pedal, set it initially perpendicular to the leg and then place it as far forward as possible in the direction of the pedal centerline with the rearmost point of the heel resting on the floor pan. If the vehicle has an adjustable accelerator pedal and the right foot is not touching the accelerator pedal when positioned as above, move the pedal rearward until it touches the right foot. If the accelerator pedal in the full rearward position still does not touch the foot, leave the pedal in that position. Extend the foot and lower leg by decreasing the knee flexion angle until any part of the foot contacts the undepressed accelerator pedal. If the foot does not contact the pedal, place the highest part of the foot at the same height as the highest part of the pedal.

(b) Extend the foot and lower leg by decreasing the knee flexion angle until any part of the foot contacts the undepressed accelerator pedal or the highest part of the foot is at the same height as the highest part of the pedal. If the vehicle has an adjustable accelerator pedal and the right foot is not touching the accelerator pedal when positioned as above, move the pedal rearward until it touches the right foot.

S16.3.2.2.2 If the ball of the right foot does not contact the pedal, increase the ankle plantar flexion angle such that the toe of the foot contacts or is as close as possible to contact with the undepressed accelerator pedal.

S16.3.2.2.3 If, in its final position, the heel is off of the vehicle floor, a spacer block must be used under the heel to support the final foot position (see figure 13). The surface of the block in contact with the heel must have an inclination of 30 degrees, measured from the horizontal, with the highest surface towards the rear of the vehicle.

S16.3.2.2.4 Place the left foot on the toe-board with the rearmost point of the heel resting on the floor pan as close as possible to the point of intersection of the planes described by the toe-board and floor pan, and not on or in contact with the vehicle's brake pedal, clutch pedal, wheel-well projection or foot rest, except as provided in S16.3.2.2.6.

S16.3.2.2.5 If the left foot cannot be positioned on the toe board, place the foot perpendicular to the lower leg centerline as far forward as possible with the heel resting on the floor pan.

S16.3.2.2.6 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 (a)–(c). 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;

(a) Rotate (abduction/adduction) the test dummy's left foot about the lower leg,

(b) Plantar flex the foot,

(c) Rotate the left leg outboard about the hip.

S16.3.2.3 *Driver arm/hand positioning.*

S16.3.2.3.1 Place the dummy's upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible.

S16.3.2.3.2 Place the palms of the dummy in contact with the outer part of the steering wheel rim at its horizontal centerline with the thumbs over the steering wheel rim.

S16.3.2.3.3 If it is not possible to position the thumbs inside the steering wheel rim at its horizontal centerline, then position them above and as close to the horizontal centerline of the steering wheel rim as possible.

S16.3.2.3.4 Lightly tape the hands to the steering wheel rim so that if the hand of the test dummy is pushed upward by a force of not less than 9 N (2 lb) and not more than 22 N (5 lb), the tape releases the hand from the steering wheel rim.

S16.3.3 *Passenger dummy positioning.*

S16.3.3.1 *Passenger torso/head/seat back angle positioning.*

S16.3.3.1.1 With the seat at the mid-height in the full forward position determined in S16.2.10.3.3, 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 in S16.2.10.3.1, for the final forward position when measuring the pelvic angle as specified in S16.3.3.1.11. 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.

S16.3.3.1.2 Fully recline the seat back, if adjustable. Install the dummy into the passenger seat, such that when the legs are 120 degrees to the thighs, the calves of the legs are not touching the seat cushion.

S16.3.3.1.3 *Bucket seats.* Place the dummy on the seat cushion so that its midsagittal plane is vertical and coincides with the vertical longitudinal plane through the center of the seat cushion, within ±10 mm (±0.4 mm).

S16.3.3.1.4 *Bench seats.* Position the midsagittal plane of the dummy vertical and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the midsagittal plane of the driver dummy.

S16.3.3.1.5 Hold the dummy's thighs down and push rearward on the upper torso to maximize the dummy's pelvic angle.

S16.3.3.1.6 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. Push rearward on the dummy's knees to force the pelvis into the seat so there is no gap between the pelvis and the seat back or until contact occurs between the back of the dummy's calves and the front of the seat cushion.

S16.3.3.1.7 Gently rock the upper torso laterally side to side three times through a ±5 degree arc (approximately 51 mm (2 in) side to side).

S16.3.3.1.8 If needed, extend the legs slightly so that the feet are not in contact with the floor pan. Let the thighs rest on the seat cushion to the extent permitted by the foot movement. With the feet perpendicular to the legs, place the heels on the floor pan. If a heel will not contact the floor pan, place it as close to the floor pan as possible. Using only the control that primarily moves the seat fore and aft, attempt to return the seat to the full forward position. If a dummy leg contacts the vehicle interior before the full forward position is attained, position the seat at the next detent where there is no contact. If the seats are power seats, position the seat to avoid contact while assuring that there is a maximum of 5 mm (0.2 in) distance between the vehicle interior and the point on the dummy that would first contact the vehicle interior.

S16.3.3.1.9 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 degrees, making sure that the pelvis does not interfere with the seat bight. Inspect the abdomen to insure that it is properly installed.

S16.3.3.1.10 If it is not possible to orient the head level within ±0.5 degrees, minimize the angle.

S16.3.3.1.11 Measure and set the dummy's pelvic angle using the pelvic angle gauge (drawing TE–2504, incorporated by reference in 49 CFR Part 572, Subpart O, of this chapter). The angle shall be set to 20.0 degrees ±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, as specified in S16.3.3.1.9 and S16.3.3.1.10.

S16.3.3.1.12 If the dummy is contacting the vehicle interior after these adjustments, using only the control that primarily moves the seat fore and aft, move the seat rearward until there is a maximum of 5 mm (0.2 in) between the contact point of the dummy and the interior of the vehicle or if it has a manual seat adjustment, to the next rearward detent position. If after these adjustments, the dummy contact point is more than 5 mm (0.2 in) from the vehicle interior and the seat is still not in its forwardmost position, move the seat forward until the contact point is a maximum of 5 mm (0.2 in) from the vehicle interior, or if it has a manual seat adjustment, move the seat to the closest detent position that causes no contact, or until the seat reaches its forwardmost position, whichever occurs first.

S16.3.3.2 *Passenger foot positioning.*

S16.3.3.2.1 Place the passenger's feet flat on the toe board.

S16.3.3.2.2 If the feet cannot be placed flat on the toe board, set them perpendicular to the leg centerlines and place them as far forward as possible with the heels resting on the floor pan. 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.

S16.3.3.3 *Passenger arm/hand positioning.*

S16.3.3.3.1 Place the dummy's upper arms in contact with the seat back and the torso.

S16.3.3.3.2 Place the palms of the dummy in contact with the outside of the thighs.

S16.3.3.3.3 Place the little fingers in contact with the seat cushion.

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S20.1.2 Unless otherwise specified, each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position, if adjustable fore and aft, at full rearward, middle, and full forward positions. If the child restraint or dummy contacts the vehicle interior, move the seat rearward to the next detent that provides clearance, or if the seat is a power seat, using only the control that primarily moves the seat fore and aft, move the seat rearward while assuring that there is a maximum of 5 mm (0.2 in) clearance between the dummy or child restraint and the vehicle interior.

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S20.1.9 *Seat set-up.* Unless otherwise stated.

S20.1.9.1 *Lumbar support adjustment.* Position adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position.

S20.1.9.2 *Other seat adjustments.* Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position.

S20.1.9.3 Set the seat and seat cushion in the position determined in S16.2.10.3.1.

S20.1.9.4 Using only the control that primarily moves the seat in the fore and aft direction, determine the full rearward, middle, and full forward positions of the SCRP. Using any part of any seat or seat cushion adjustments, other than that which primarily moves the seat or seat cushion fore-aft, determine the SCRP mid-point height for each of the three fore-aft test positions, while maintaining, as closely as possible, the seat cushion reference line middle angle determined in S16.2.10.3.1.

S20.1.9.5 The seat back angle, if adjustable, is set at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3.

S20.1.9.6 If adjustable, set the head restraint at the full down and full forward position.

S20.1.10 The longitudinal centerline of a bucket seat cushion is defined by a vertical plane that passes through the SgRP and is parallel to the longitudinal centerline of the vehicle.

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S20.2.1.3 For bucket seats, ''Plane B'' refers to a vertical plane parallel to the vehicle longitudinal centerline through the longitudinal centerline of the front outboard passenger vehicle seat cushion. For bench seats, ''Plane B'' refers to a vertical plane through the front outboard passenger vehicle seat parallel to the vehicle longitudinal centerline the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.

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S20.3.1 Each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position, if adjustable fore and aft, at the mid-height, in the full rearward and middle positions determined in S20.1.9.4, and the forward position determined in S16.3.3.1.8.

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S20.4.1 Position the front outboard passenger vehicle seat at the mid-height in the full forward position determined in S20.1.9.4, and adjust the seat back (if adjustable independent of the seat) to the nominal design position for a 50th percentile adult male as specified in S8.1.3. Position adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. If adjustable, set the head restraint at the full down and most forward position. If the child restraint or dummy contacts the vehicle interior, do the following: using only the control that primarily moves the seat in the fore and aft direction, move the seat rearward to the next detent that provides clearance; or if the seat is a power seat, move the seat rearward while assuring that there is a maximum of 5 mm (0.2 in) clearance.

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S20.4.4 For bucket seats, ''Plane B'' refers to a vertical plane parallel to the vehicle longitudinal centerline through the longitudinal centerline of the front outboard passenger seat cushion. For bench seats, ''Plane B'' refers to a vertical plane through the front outboard passenger seat parallel to the vehicle longitudinal centerline that is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.

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S20.4.9 Deploy the front outboard passenger frontal air bag system. If the air bag system contains a multistage inflator, the vehicle shall be able to comply at any stage or combination of stages or time delay between successive stages that could occur in the presence

of an infant in a rear facing child restraint and a 49 CFR Part 572, Subpart R 12-month-old CRABI dummy positioned according to S20.4, and also with the seat at the mid-height, in the middle and full rearward positions determined in S20.1.9.4, in a rigid barrier crash test at speeds up to 64 km/h (40 mph).

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S22.1.2 Unless otherwise specified, each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position at the mid-height, in the full rearward, middle, and the full forward positions determined in S22.1.7.4. If the dummy contacts the vehicle interior, using only the control that primarily moves the seat fore and aft, move the seat rearward to the next detent that provides clearance. If the seat is a power seat, move the seat rearward while assuring that there is a maximum of 5 mm (0.2 in) clearance.

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S22.1.7 *Seat set-up.* Unless otherwise stated,

S22.1.7.1 *Lumbar support adjustment.* Position adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position.

S22.1.7.2 *Other seat adjustments.* Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position.

S22.1.7.3 Set the seat and seat cushion in the position determined in S16.2.10.3.1.

S22.1.7.4 Using only the control that primarily moves the seat in the fore and aft direction, determine the full rearward, middle, and full forward positions of the SCRP. Using any part of any seat or seat cushion adjustments other than that which primarily moves the seat or seat cushion fore-aft, determine the SCRP mid-point height for each of the three fore-aft test positions, while maintaining, as closely as possible, the seat cushion reference line angle determined in S16.2.10.3.1.

S22.1.7.5 The seat back angle, if adjustable, is set at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3.

S22.1.7.6 If adjustable, set the head restraint at the full down and full forward position.

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S22.2.2.1 *Sitting on seat with back against seat back.*

(a) Position the dummy in the seated position and place it on the right front outboard seat.

(b) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the center of the steering wheel. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in). Position the torso of the dummy against the seat back. Position the dummy's thighs against the seat cushion.

(c) Allow the legs of the dummy to extend off the surface of the seat.

(d) Rotate the dummy's upper arms down until they contact the seat back.

(e) Rotate the dummy's lower arms until the dummy's hands contact the seat cushion.

(f) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(g) Wait 10 seconds, then check whether the air bag is deactivated.

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S22.2.2.3 *Sitting on seat with back not against seat back.*

(a) Position the dummy in the seated position and place it on the right front outboard seat.

(b) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the center of the steering wheel. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in). Position the dummy with the spine vertical so that the horizontal distance from the dummy's back to the seat back is no less than 25 mm (1.0 in) and no more than 150 mm (6.0 in), as measured along the dummy's midsagittal plane at the mid-sternum level. To keep the dummy in position, a material with a maximum breaking strength of 311 N (70 lb) may be used to hold the dummy.

(c) Position the dummy's thighs against the seat cushion.

(d) Allow the legs of the dummy to extend off the surface of the seat.

(e) Position the upper arms parallel to the spine and rotate the dummy's lower arms until the dummy's hands contact the seat cushion.

(f) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(g) Wait 10 seconds, then check whether the air bag is deactivated.

S22.2.2.4 *Sitting on seat edge, spine vertical, hands by the dummy's sides.*

(a) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the center of the steering wheel. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in).

(b) Position the dummy in the seated position forward in the seat such that the legs are vertical and the back of the legs rest against the front of the seat with the spine vertical. If the dummy's feet contact the floor pan, rotate the legs forward until the dummy is resting on the seat with the feet positioned flat on the floor pan and the dummy spine vertical. To keep the dummy in position, a material with a maximum breaking strength of 311 N (70 lb) may be used to hold the dummy.

(c) Place the upper arms parallel to the spine.

(d) Lower the dummy's lower arms such that they contact the seat cushion.

(e) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(f) Wait 10 seconds, then check whether the air bag is deactivated.

S22.2.2.5 *Standing on seat, facing forward.*

(a) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±.4 in), as the center of the steering wheel rim. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in). Position the dummy in a standing position on the right front outboard seat cushion facing the front of the vehicle while placing the heels of the dummy's feet in contact with the seat back.

(b) Rest the dummy against the seat back, with the arms parallel to the spine.

(c) If the head contacts the vehicle roof, recline the seat so that the head is no longer in contact with the vehicle roof, but allow no more than 5 mm (0.2 in) distance between the head and the roof. If the seat does not sufficiently recline to allow clearance, omit the test.

(d) If necessary use a material with a maximum breaking strength of 311 N (70 lb) or spacer blocks to keep the dummy in position.

(e) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(f) Wait 10 seconds, then check whether the air bag is deactivated.

S22.2.2.6 *Kneeling on seat, facing forward.*

(a) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the center of the steering wheel. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in).

(b) Position the dummy in a kneeling position in the right front outboard seat with the dummy facing the front of the vehicle with its toes at the intersection of the seat back and seat cushion. Position the dummy so that the spine is vertical. Push down on the legs so that they contact the seat as much as possible and then release. Place the arms parallel to the spine.

(c) If necessary use a material with a maximum breaking strength of 311 N (70 lb) or spacer blocks to keep the dummy in position.

(d) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(e) Wait 10 seconds, then check whether the air bag is deactivated.

S22.2.2.7 *Kneeling on seat, facing rearward.*

(a) In the case of vehicles equipped with bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the vehicle's longitudinal centerline, within ±10 mm (±0.4 in), as the center of the steering wheel. In the case of vehicles equipped with bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in).

(b) Position the dummy in a kneeling position in the right front outboard seat with the dummy facing the rear of the vehicle. Position the dummy such that the dummy's head and torso are in contact with the seat back. Push down on the legs so that they contact the seat as much as possible and then release. Place the arms parallel to the spine.

(c) Start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system, and then close all vehicle doors.

(d) Wait 10 seconds, then check whether the air bag is deactivated.

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S22.3.1 Each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position at the mid-height, in the full rearward, and middle positions determined in S22.1.7.4, and the forward position determined in S16.3.3.1.8.

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S22.4.1 Each vehicle that is certified as complying with S21.4 shall meet the following test requirements with the 49 CFR Part 572, Subpart P 3-year-old child dummy in both of the following positions: Position 1 (S22.4.2) and Position 2 (S22.4.3).

S22.4.1.1 Locate and mark a point on the front of the dummy's chest jacket on the midsagittal plane that is 114 mm (4.5 in) ±3 mm (±0.1 in) along the surface of the skin from the top of the skin at the neck line. This is referred to as ''Point 1.''

S22.4.1.2 Mark a point on the instrument panel that is longitudinally and transversely, as measured along the surface of the instrument panel, within ±6 mm (±0.2 in) of the point that is defined by the intersection of the instrument panel and a line between the volumetric center of the smallest volume that can encompass the folded undeployed air bag and the volumetric center of the static fully inflated air bag.

S22.4.1.3 Locate the vertical plane parallel to the vehicle longitudinal centerline through the point located in S22.4.1.2. This is referred to as ''Plane D.''

S22.4.1.4 Locate the horizontal plane through the point located in S22.4.1.2. This is referred to as ''Plane C.''

S22.4.2 *Position 1 (chest on instrument panel).*

S22.4.2.1 Set the seat and seat cushion in the positions determined in S16.2.10.3.1. If the seat back is adjustable independent of the seat, place the seat back at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. If adjustable, set the head restraint in the lowest and most forward position.

S22.4.2.2 Place the dummy in the front outboard passenger seat such that:

S22.4.2.2.1 The midsagittal plane is coincident with Plane D within ±10 mm (±0.4 in).

S22.4.2.2.2 The legs are initially vertical to the floor pan. The legs and thighs shall be adjusted to the extent necessary for the head/torso to contact the instrument panel as specified in S22.4.2.3.

S22.4.2.2.3 The upper arms are parallel to the torso and the hands are in contact with the thighs.

S22.4.2.3 Without changing the seat position and with the dummy's thorax instrument cavity rear face vertical, move the dummy forward until the dummy head/torso contacts the instrument panel. If the dummy loses contact with the seat cushion because of the forward movement, maintain the height of the dummy and the angle of the thigh with respect to the torso. Once contact is made, raise the dummy vertically until Point 1 lies in Plane C within ±10 mm (±0.4 in). If the dummy's head contacts the windshield and keeps Point 1 from reaching Plane C, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the head and the windshield. (The dummy shall remain in contact with the instrument panel while being raised or lowered, which may change the dummy's fore-aft position.)

S22.4.2.4 If possible, position the legs of the dummy so that the legs are vertical and the feet rest flat on the floor pan of the vehicle. If the positioning against the instrument panel does not allow the feet to be on the floor pan, the feet shall be parallel to the floor pan.

S22.4.2.5 If necessary, material with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The material should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the material does not interfere with the air bag.

S22.4.3 *Position 2 (head on instrument panel).*

S22.4.3.1 Place the front outboard passenger seat at the mid-height, in full rearward seating position determined in S22.1.7.4. Place the seat back, if adjustable independent of the seat, at the manufacturer's nominal design seat back angle for a 50th percentile adult

male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. If adjustable, set the head restraint in the lowest and most forward position.

S22.4.3.2 Place the dummy in the front outboard passenger seat such that:

S22.4.3.2.1 The midsagittal plane is coincident with Plane D within ±10 mm (±0.4 in).

S22.4.3.2.2 The legs are vertical to the floor pan, the back of the legs are in contact with the seat cushion, and the dummy's thorax instrument cavity rear face is vertical. If it is not possible to position the dummy with the legs in the prescribed position, rotate the legs forward until the dummy is resting on the seat with the feet positioned flat on the floor pan, and the back of the legs are in contact with the front of the seat cushion. Set the transverse distance between the longitudinal centerlines at the front of the dummy's knees at 86 to 91 mm (3.4 to 3.6 in), with the thighs and the legs of the dummy in vertical planes.

S22.4.3.2.3 The upper arms are parallel to the torso and the hands are in contact with the thighs.

S22.4.3.3 Using only the control that primarily moves the seat in the fore and aft direction, move the seat forward, while maintaining the thorax instrument cavity rear face orientation until any part of the dummy contacts the vehicle's instrument panel.

S22.4.3.4 If dummy contact has not been made with the vehicle's instrument panel at the full forward seating position of the seat, slide the dummy forward until contact is made. Maintain the thorax instrument cavity rear face vertical orientation. If the dummy loses contact with the seat, from that point forward, maintain the height of the dummy. Except as provided in S22.4.3.5, maintain the angle of the thigh with respect to the horizontal.

S22.4.3.5 If head/torso contact with the instrument panel has not been made, maintain the angle of the thighs with respect to the horizontal while applying a force towards the front of the vehicle on the spine of the dummy between the shoulder joints until the head or torso comes into contact with the vehicle's instrument panel or until a maximum force of 222 N (50 lb) is achieved. If the head/torso is still not in contact with the instrument panel, hold the femurs and release the 222 N (50 lb) force. While maintaining the relative angle between the torso and the femurs, roll the dummy forward on the seat cushion, without sliding, until head/torso contact with the instrument panel is achieved. If seat contact is lost prior to or during femur rotation out of the horizontal plane, constrain the dummy to rotate about the dummy H-point.

S22.4.3.6 If necessary, material with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The material should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the material does not interfere with the air bag.

S22.4.4 Deploy the front outboard passenger frontal air bag system. If the frontal air bag system contains a multistage inflator, the vehicle shall be able to comply with the injury criteria at any stage or combination of stages or time delay between successive stages that could occur in a rigid barrier crash test at or below 26 km/h (16 mph), under the test procedure specified in S22.5.

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S24.1.2 Unless otherwise specified, each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position at the mid-height, in the full rearward seat track position, the middle seat track position, and the full forward seat track position as determined in this section. Using only the control that primarily moves the seat in the fore and aft direction, determine the full rearward, middle, and full forward positions of the SCRP. Using any seat or seat cushion adjustments other than that which primarily moves the seat fore-aft, determine the SCRP mid-point height for each of the three fore-aft test positions, while maintaining as closely as possible, the seat cushion angle determined in S16.2.10.3.1. Set the seat back angle, if adjustable independent of the seat, at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. If the dummy contacts the vehicle interior, move the seat rearward to the next detent that provides clearance. If the seat is a power seat, move the seat rearward while assuring that there is a maximum of 5 mm (0.2 in) distance between the vehicle interior and the point on the dummy that would first contact the vehicle interior.

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S24.2.3 *Sitting back in the seat and leaning on the right front passenger door.*

(a) Position the dummy in the seated position and place the dummy in the right front outboard seat. For bucket seats, position the midsagittal plane of the dummy vertically such that it coincides with the longitudinal centerline of the seat cushion, within ±10 mm (±0.4 in). For bench seats, position the midsagittal plane of the dummy vertically and parallel to the vehicle's longitudinal centerline and the same distance from the longitudinal centerline of the vehicle, within ±10 mm (±0.4 in), as the center of the steering wheel.

(b) Place the dummy's back against the seat back and rest the dummy's thighs on the seat cushion.

(c) Allow the legs and feet of the dummy to extend off the surface of the seat. If this positioning of the dummy's legs is prevented by contact with the instrument panel, using only the control that primarily moves the seat fore and aft, move the seat rearward to the next detent that provides clearance. If the seat is a power seat, move the seat rearward, while assuring that there is a maximum of 5 mm (0.2 in) distance between the vehicle interior and the part of the dummy that was in contact with the vehicle interior.

(d) Rotate the dummy's upper arms toward the seat back until they make contact.

(e) Rotate the dummy's lower arms down until they contact the seat.

(f) Close the vehicle's passenger-side door and then start the vehicle engine or place the ignition in the ''on'' position, whichever will turn on the suppression system.

(g) Push against the dummy's left shoulder to lean the dummy against the door; close all remaining doors.

(h) Wait ten seconds, then check whether the air bag is deactivated.

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S24.3.1 Each vehicle certified to this option shall comply in tests conducted with the front outboard passenger seating position at the mid-height, in the full rearward and middle positions determined in S24.1.2, and the forward position determined in S16.3.3.1.8.

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S24.4.1 Each vehicle that is certified as complying with S23.4 shall meet the following test requirements with the 49 CFR Part 572, Subpart N 6-year-old child dummy in both of the following positions: Position 1 (S24.4.2) or Position 2 (S24.4.3).

S24.4.1.1 Locate and mark a point on the front of the dummy's chest jacket on the midsagittal plane that is 139 mm (5.5 in) ±3 mm (±0.1in) along the surface of the skin from the top of the skin at the neckline. This is referred to as ''Point 1.''

S24.4.1.2 Mark a point on the instrument panel that is longitudinally

and transversely, as measured along the surface of the instrument panel, within ±6 mm (±0.2 in) of the point that is defined by the intersection of the instrument panel and a line between the volumetric center of the smallest volume that can encompass the folded undeployed air bag and the volumetric center of the static fully inflated air bag.

S22.4.1.3 Locate the vertical plane parallel to the vehicle longitudinal centerline through the point located in S24.4.1.2. This is referred to as ''Plane D.''

S24.4.1.4 Locate the horizontal plane through the point located in S24.4.1.2. This is referred to as ''Plane C.''

S24.4.2 *Position 1 (chest on instrument panel).*

S24.4.2.1 Set the seat and seat cushion in the positions determined in S16.2.10.3.1. If the seat back is adjustable independent of the seat, place the seat back at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. If adjustable, set the head restraint in the lowest and most forward position.

S24.4.2.2 Remove the legs of the dummy at the pelvic interface.

S24.4.2.3 Place the dummy in the front outboard passenger seat such that:

(a) The midsagittal plane is coincident with Plane D within ±10 mm (±0.4 in).

(b) The upper arms are parallel to the torso and the hands are next to where the thighs would be.

(c) Without changing the seat position and with the dummy's thorax instrument cavity rear face 6 degrees forward of the vertical, move the dummy forward until the dummy head/torso contacts the instrument panel. If the dummy loses contact with the seat cushion because of the forward movement, maintain the height of the dummy while moving the dummy forward. If the head contacts the windshield before head/torso contact with the instrument panel, maintain the thorax instrument cavity angle and move the dummy forward such that the head is following the angle of the windshield until there is head/torso contact with the instrument panel. Once contact is made, raise or lower the dummy vertically until Point 1 lies in Plane C within ±10 mm (±0.4 in). If the dummy's head contacts the windshield and keeps Point 1 from reaching Plane C, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the head and the windshield. (The dummy shall remain in contact with the instrument panel while being raised or lowered which may change the dummy's fore-aft position.)

S24.4.2.4 If necessary, material with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The material should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the material does not interfere with the air bag.

S24.4.3 *Position 2 (head on instrument panel).*

S24.4.3.1 Place the front outboard passenger seat at the mid-height full rearward seating position determined in S24.1.2. Place the seat back, if adjustable independent of the seat, at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. Position an adjustable head restraint in the lowest and most forward position.

S24.4.3.2 Place the dummy in the front outboard passenger seat such that:

(a) The midsagittal plane is coincident with Plane D within ±10 mm (±0.4 in).

(b) The legs are perpendicular to the floor pan, the back of the legs are in contact with the seat cushion, and the dummy's thorax instrument cavity rear face is 6 degrees forward of vertical. If it is not possible to position the dummy with the legs in the prescribed position, rotate the legs forward until the dummy is resting on the seat with the feet positioned flat on the floor pan and the back of the legs are in contact with the front of the seat cushion. Set the transverse distance between the longitudinal centerlines at the front of the dummy's knees at 112 to 117 mm (4.4 to 4.6 in), with the thighs and the legs of the dummy in vertical planes.

(c) The upper arms are parallel to the torso and the hands are in contact with the thighs.

S24.4.3.3 Using only the control that primarily moves the seat in the fore and aft direction, move the seat forward, while maintaining the thorax instrument cavity rear face orientation until any part of the dummy contacts the vehicle's instrument panel.

S24.4.3.4 If dummy contact has not been made with the vehicle's instrument panel at the full forward seating position of the seat, slide the dummy forward on the seat until contact is made. Maintain the thorax instrument cavity rear face orientation. If the dummy loses contact with the seat, from that point forward maintain the height of the dummy. Except as provided in S24.4.3.5, maintain the angle of the thigh with respect to the horizontal.

S24.4.3.5 If head/torso contact with the instrument panel has not been made, maintain the angle of the thighs with respect to the horizontal while applying a force towards the front of the vehicle on the spine of the dummy between the shoulder joints until the head or torso comes into contact with the vehicle's instrument panel or until a maximum force of 222 N (50 lb) is achieved. If the head/torso is still not in contact with the instrument panel, hold the femurs and release the 222 N (50 lb) force. While maintaining the relative angle between the torso and the femurs, roll the dummy forward on the seat, without sliding, until head/torso contact with the instrument panel is achieved. If seat contact is lost prior to or during femur rotation out of the horizontal plane, constrain the dummy to rotate about the dummy H-point.

S24.4.3.6 If necessary, material with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The material should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the material does not interfere with the air bag.

S24.4.4 Deploy the front outboard passenger frontal air bag system. If the frontal air bag system contains a multistage inflator, the vehicle shall be able to comply with the injury criteria at any stage or combination of stages or time delay between successive stages that could occur in a rigid barrier crash test at or below 26 km/h (16 mph), under the test procedure specified in S22.5.

* * * * *

S26.2.2 Mark a point on the steering wheel cover that is longitudinally and transversely, as measured along the surface of the steering wheel cover, within ±6 mm (±0.2 in) of the point that is defined by the intersection of the steering wheel cover and a line between the volumetric center of the smallest volume that can encompass the folded undeployed air bag and the volumetric center of the static fully inflated air bag. Locate the vertical plane parallel to the vehicle longitudinal centerline through the point located on the steering wheel cover. This is referred to as ''Plane E.''

S26.2.3 Place the seat and seat cushion in the position achieved in S16.2.10.3.1. If the seat or seat cushion

is adjustable in the vertical direction by adjustments other than that which primarily moves the seat or seat cushion fore-aft, determine the maximum and minimum heights of the SCRP at this position, while maintaining the seat cushion reference line angle as closely as possible. Place the SCRP in the mid-height position. If the seat back is adjustable independent of the seat, place the seat back at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. Position an adjustable head restraint in the lowest and most forward position.

* * * * *

S26.2.4.1 The midsagittal plane is coincident with Plane E within ±10 mm (±0.4 in).

* * * * *

S26.3.1 Place the seat and seat cushion in the position achieved in S16.2.10.3.1. If the seat or seat cushion is adjustable in the vertical direction by adjustments other than that which primarily moves the seat or seat cushion fore-aft, determine the maximum and minimum heights of the seat reference point at this position, while maintaining the seat cushion reference line angle as closely as possible. Place the SCRP in the mid-height position. If the seat back is adjustable independent of the seat, place the seat back at the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. Position an adjustable head restraint in the lowest position.

* * * * *

S26.3.4.1 The midsagittal plane is coincident with Plane E within ±10 mm (±0.4 in).

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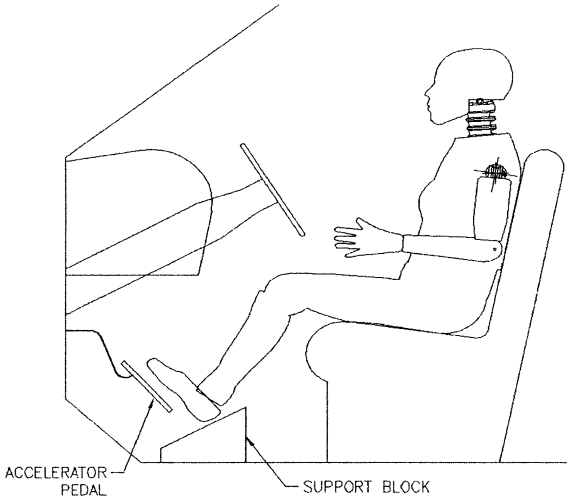
S26.3.6 While maintaining the spine angle, position the dummy so that a point on the chin 40 mm (1.6 in) ±3 mm (±0.1 in) below the center of the mouth (chin point) is, within ±10 mm (±0.4 in), in contact with a point on the steering wheel rim surface closest to the dummy that is 10 mm (0.4 in) vertically below the highest point on the rim in Plane E. If the dummy's head contacts the vehicle windshield or upper interior before the prescribed position can be obtained, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the vehicle's windshield or upper interior, as applicable.

S26.3.7 If the steering wheel can be adjusted so that the chin point can be in contact with the rim of the uppermost portion of the steering wheel, adjust the steering wheel to that position. If the steering wheel contacts the dummy's leg(s) prior to attaining this position, adjust it to the next highest detent, or if infinitely adjustable, until there is a maximum of 5 mm (0.2 in) clearance between the wheel and the dummy's leg(s). Readjust the dummy's torso such that the thorax instrument cavity rear face is 6 degrees forward of the steering wheel angle. Position the dummy so that the chin point is in contact, or if contact is not achieved, as close as possible to contact with the rim of the uppermost portion of the steering wheel.

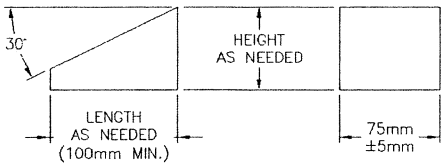
* * * * *

S26.4 Deploy the driver frontal air bag system. If the frontal air bag system contains a multistage inflator, the vehicle shall be able to comply with the injury criteria at any stage or combination of stages or time delay between successive stages that could occur in a rigid barrier crash test at or below 26 km/h (16 mph), under the test procedure specified in S22.5.

* * * * *



5th PERCENTILE FEMALE RIGHT FOOT SUPPORT BLOCK



SUPPORT BLOCK DETAIL

Figure 13

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Appendix A to § 571.208—Selection of Child Restraint Systems

A. The following car bed, manufactured on or after December 1, 1999, may be used by the National Highway Traffic Safety Administration to test the suppression system of a vehicle manufactured on or after the effective date specified that has been certified as being in compliance with 49 CFR 571.208 S19:

	Effective and termination dates	
	January 17, 2002	September 1, 2004
Cosco Cream Ride 02–719	Effective	Remains Effective.

B. Any of the following rear facing child restraint systems, manufactured on or after December 1, 1999, may be used by the National Highway Traffic Safety Administration to test the suppression system of a vehicle manufactured on or after the effective date and prior to the termination date specified that has been certified as being in compliance with 49 CFR 571.208 S19. When the restraint system comes equipped with a removable base, the test may be run either with the base attached or without the base.

	Effective and termination dates	
	January 17, 2002	September 1, 2004
Britax Handle with Care 191	Effective	Remains Effective.
Century Assura 4553	Effective	Remains Effective.
Century Avanta SE 41530	Effective	Terminated.
Century Smart Fit 4543	Effective	Remains Effective.
Cosco Arriva 02727	Effective	Remains Effective.
Cosco Opus 35 02603	Effective	Terminated.
Evenflo Discovery Adjust Right 212	Effective	Remains Effective.
Evenflo First Choice 204	Effective	Remains Effective.
Evenflo On My Way Position Right V 282	Effective	Terminated.
Graco Infant 8457	Effective	Remains Effective.

C. Any of the following forward-facing convertible child restraint systems, manufactured on or after December 1, 1999, may be used by the National Highway Traffic Safety Administration to test the suppression system of a vehicle manufactured on or after the effective date and prior to the termination date specified that has been certified as being in compliance with 49 CFR 571.208 S19, or S21:

	Effective and termination dates	
	January 17, 2002	September 1, 2004
Britax Roundabout 161	Effective	Remains Effective.
Britax Expressway ISOFIX		Effective.
Century Encore 4612	Effective	Remains Effective.
Century STE 1000 4416	Effective	Remains Effective.
Cosco Olympian 02803	Effective	Remains Effective.
Cosco Touriva 02519	Effective	Remains Effective.
Evenflo Horizon V 425	Effective	Remains Effective.
Evenflo Medallion 254	Effective	Remains Effective.
Safety 1st Comfort Ride 22–400		Effective.

D. Any of the following forward-facing toddler/belt positioning booster systems, manufactured on or after December 1, 1999, may be used by the National Highway Traffic Safety Administration as test devices to test the suppression system of a vehicle manufactured on or after the effective date and prior to the termination date specified that has been certified as being in compliance with 49 CFR 571.208 S21 or S23:

	Effective and termination dates	
	January 17, 2002	September 1, 2004
Britax Roadster 9004	Effective	Remains Effective.
Century Next Step 4920	Effective	Remains Effective.
Cosco High Back Booster 02–442	Effective	Remains Effective.
Evenflo Right Fit 245	Effective	Remains Effective.

Issued: November 7, 2003.

Stephen R. Kratzke,

Associate Administrator for Rulemaking.

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