D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

47. The Report and Order clarifies the existing obligation of new entrants to reimburse the party who relocates BAS incumbents for a portion of the relocation costs. It specifies that an AWS entrant incurs a cost sharing obligation upon grant of the long-form application for its license, and an MSS entrant incurs an obligation when it certifies that its satellite is operational for purposes of meeting its operational milestone. The reimbursement obligation continues until the December 9, 2013 band sunset date. The Report and Order also specifies when payment of relocation cost is due.

E. Steps Taken To Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

48. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[21]

49. Most of the decisions in the Report and Order address cost sharing obligations between the MSS entrants, future AWS entrants, and Sprint Nextel for relocating the BAS incumbents. Of these new entrants only the future AWS entrants may be small entities. Because no licensing scheme for the AWS spectrum has been determined, we are unable to determine how many (if any) of these future licensees may be small entities. It is also difficult to determine how the impact of the cost sharing rules on them may be reduced.

50. All of the new entrants benefit from the clarity that the Report and Order brings to the cost sharing rules. The new entrants can now be certain how they incur a cost sharing obligation, what expenses are eligible for cost sharing, when they must make payment, and when the obligation will end if they do not incur a cost sharing obligation (*i.e.* they do not enter the band by the sunset date). In this way the cost sharing requirements adopted in the Report and Order benefit those future AWS entrants who may be small entities.

51. Under the cost sharing rules, Sprint Nextel may receive cost sharing from the other new entrants to the band. One possible alternative to lessen the impact on new entrants who are small entities would be to reduce the amount that small entities are required to reimburse other entrants for the BAS relocation. This would in effect require Sprint Nextel to subsidize the small entities. This would be unfair because Sprint Nextel did not volunteer to subsidize the small entities, the small entities would likely be direct competitors of Sprint Nextel, and Sprint Nextel has spent a large sum of money on the BAS transition. Sprint Nextel is only receiving 5 megahertz of the 35 megahertz of spectrum and up to this point has shouldered the entire cost of the BAS transition. Not requiring the future AWS entrants who are small entities to pay their share of the relocation cost would also harm the Commission's future relocation policies. In the future licensees are not likely to volunteer to relocate incumbents if they are forced to subsidize other licensees.

52. Another alternative would be to let the small entities pay their cost sharing obligation on the installment plan.[22] Allowing use of installment payments would in effect make the party who relocated the incumbents a creditor of the small entity. This would be more costly for the party who relocated the incumbents because they will receive payment later. It would also subject the relocating party to increased risk of non-payment. There is also no record as to what specific installment plan could be adopted.

53. Because of these drawbacks, we do not believe either of these alternatives is appropriate. Furthermore, because no AWS licenses have been issued, no small entities currently have a cost sharing obligation for the BAS transition. When AWS licenses are issued at some future date, the potential licensees will know for certain that they face a cost sharing liability because of the refinement of the cost sharing rules adopted in this Report and Order.

F. Federal Rules That May Duplicate, Overlap or Conflict With the Rules

54. None.

Ordering Clauses

55. Pursuant to sections 4(i), 301, 303(c), 303(f), 303(g), 303(r), 303(y), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 303(c), 303(f), 303(g), 303(r), 303(y), and 332, this Fifth Report and Order, Eleventh Report and Order, Sixth Report and Order *is adopted* and will become effective 30 days after publication in the **Federal Register.**

56. Pursuant to sections 4(i), 301, 303(c), 303(f), 303(g), 303(r), 303(y), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 303(c), 303(f), 303(g), 303(r), 303(y), and 332, this Declaratory Ruling *is adopted* and was effective September 29, 2010.

57. The Petition for Stay filed by New DBSD Satellite Services G.P. *is denied.*

58. The Commission *shall send* a copy of this Fifth Report and Order, Eleventh Report and Order, Sixth Report and Order, and Declaratory Ruling in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 2010–27577 Filed 11–1–10; 8:45 am]

BILLING CODE 6712–01–P

[21] *See* 5 U.S.C. 603(c).

[22] We rejected requiring the MSS entrants to pay their obligation under an installment plan. *See* paragraph 16, *supra.*

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA–2010–0148]

RIN 2127–AK39

Federal Motor Vehicle Safety Standards; Head Restraints

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

ACTION: Final rule; technical amendments; response to petitions for reconsideration and petitions for rulemaking.

SUMMARY: This document responds to petitions for reconsideration of the agency's May 2007 final rule amending our head restraint standard, and to related petitions for rulemaking. This document also makes technical corrections. The May 2007 final rule was issued in response to petitions for reconsideration of our December 2004 final rule upgrading our head restraint standard. We are partially granting and partially denying the petitions for reconsideration.

DATES: *Effective Date:* This rule is effective January 3, 2011. *Petitions:* Petitions for reconsideration must be received by December 17, 2010.

ADDRESSES: Any petitions for reconsideration should refer to the docket number of this document and be submitted to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., West Building, Ground Floor, Docket Room W12–140, Washington, DC 20590.

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

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may contact Louis Molino of the Office of Rulemaking, Office of Crashworthiness Standards, Light Duty Vehicle Division, NVS–112, (Phone: 202–366–1740). For legal issues, you may contact Edward Glancy of the Office of Chief Counsel, NCC–112, (Phone: 202–366–2992). You may send mail to both of these officials at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590.

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I. Overview

This document responds to petitions for reconsideration of the agency's May 2007 final rule amending our head restraint standard, and to related petitions for rulemaking. This document also makes technical corrections.

The May 2007 final rule was issued in response to petitions for reconsideration of our December 2004 final rule upgrading our head restraint standard. The December 2004 final rule represented a significant upgrade of NHTSA's head restraint standard, and the estimated benefits, recognized primarily by reductions in "whiplash" injuries, were substantial. The overwhelming majority of those benefits came from reducing the "backset," or distance between the back of the head and the head restraint.

We also note that further rulemaking on this subject is upcoming. A Global Technical Regulation (GTR) on the subject has recently been adopted, and NHTSA plans to publish a notice of proposed rulemaking (NPRM) to propose changes in accordance with the GTR.

In this document, we are partially granting and partially denying the petitions for reconsideration of our May 2007 final rule. Some of the issues raised by the petitioners for rulemaking are addressed by the GTR. We will address those issues in the context of a future separate rulemaking based on the GTR. We are otherwise denying the petitions for rulemaking.

II. Background

A. Introduction

On December 14, 2004, NHTSA published in the **Federal Register** (69 FR 74848) a final rule [1] upgrading the agency's head restraint standard in order to reduce whiplash injuries in rear collisions. The upgraded standard specified requirements for front seat head restraints and for head restraints voluntarily installed in rear outboard designated seating positions.

On May 4, 2007, NHTSA published in the **Federal Register** (72 FR 25484) a final rule; response to petitions for reconsideration [2] which completed the agency's response to petitions for reconsideration of the December 2004 final rule. The agency partially granted and partially denied the petitions. The agency also denied a related petition for rulemaking, submitted by Kongsberg Automotive (Kongsberg), in that document. Kongsberg is a company that produces automotive parts, including head restraint systems.

The upgraded standard is designated Standard No. 202a; *Head Restraints; Mandatory applicability begins on September 1, 2009.* The earlier standard is Standard No. 202; *Head Restraints; Applicable at the manufacturers' option until September 1, 2009.* The requirements of the upgraded standard are currently being phased in.

In today's document, we are responding to petitions for reconsideration received in response to the May 2007 final rule, and to related petitions for rulemaking. Readers who may be interested in the broader issues involved in the rulemaking to upgrade the head restraint standard are encouraged to read the December 2004 and May 2007 final rules.

B. Agency Goals in Upgrading Head Restraint Standard

The agency upgraded its head restraint standard in order to reduce whiplash injuries in rear collisions. Whiplash injuries are a set of common symptoms that occur in motor vehicle crashes and involve the soft tissues of the head, neck and spine. Symptoms of

[1] Docket No. NHTSA–2004–19807.

[2] Docket No. NHTSA–2007–27986.

pain in the head, neck, shoulders, and arms may be present along with damage to muscles, ligaments and vertebrae, but in many cases lesions are not evident. The onset of symptoms may be delayed and may only last a few hours; however, in some cases, effects of the injury may last for years or even be permanent. The relatively short-term symptoms are associated with muscle and ligament trauma, while the long-term ones are associated with nerve damage.

Based on National Automotive Sampling System (NASS) data, we estimate that between 1988 and 1996, 805,581 whiplash injuries [3] occurred annually in crashes involving passenger cars and LTVs (light trucks, multipurpose passenger vehicles, and vans). Of these whiplash injuries, 272,464 occurred as a result of rear impacts. For rear impact crashes, the average cost of whiplash injuries in 2002 dollars is $9,994 (which includes $6,843 in economic costs and $3,151 in quality of life impacts, but not property damage), resulting in a total annual cost of approximately $2.7 billion.

Although whiplash injuries can occur in any kind of crash, an occupant's chances of sustaining this type of injury are greatest in rear-end collisions. When a vehicle is struck from behind, typically several things occur in quick succession to an occupant of that vehicle. First, from the occupant's frame of reference, the back of the seat moves forward into his or her torso, straightening the spine and forcing the head to rise vertically. Second, as the seat pushes the occupant's body forward, the unrestrained head tends to lag behind. This causes the neck to change shape, first taking on an S-shape and then bending backward. Third, the forces on the neck accelerate the head, which catches up with—and, depending on the seat back stiffness and if the occupant is using a shoulder belt, passes—the restrained torso. This motion of the head and neck, which is like the lash of a whip, gives the resulting neck injuries their popular name.

NHTSA research has indicated that whiplash injuries can be substantially reduced by limiting the distance between the back of the head and the head restraint, a distance known as the "backset." The most significant effect of the 2004 final rule was to limit backset to 55 mm. In limiting backset, NHTSA balanced comfort, safety, and measurement variability concerns. The agency explained the rationale for the backset requirement in the preamble to the December 2004 final rule, and addressed the issue further in the preamble to the May 2007 final rule.

C. May 2007 Final Rule; Response to Petitions for Reconsideration

As noted above, NHTSA's May 2007 final rule, response to petitions for reconsideration, completed the agency's response to petitions for reconsideration of the December 2004 final rule. The agency partially granted and partially denied the petitions. The more significant changes made in the May 2007 response to petitions included:

- Leadtime: For the front seat requirements, the agency provided one additional year of leadtime and also established a one-year phase-in with an 80 percent requirement. NHTSA had previously extended the compliance date for the rear seat requirements by two years. The agency also established a one-year phase-in with an 80 percent requirement for the rear seat requirements.
- Backset: NHTSA made two changes related to the backset requirement. First, the agency specified in FMVSS No. 202a that backset is determined by taking the arithmetic average of three measurements, rather than using a single measurement. Two studies, one by NHTSA and one by Transport Canada, had indicated that taking an average of several measurements reduces variability. Second, we slightly relaxed the backset requirement by specifying that the 55 mm backset limit applies with the seat back at the vehicle manufacturer's specified design angle rather than at 25 degrees. This decision reflected consideration of interrelated issues and data concerning the 55 mm backset limit, comfort, and seat back angle.
- Rear Seat Non-Use Positions: To provide greater flexibility in this area, we added (as included in the NPRM) an option for a 10-degree change in the torso reference angle criteria.
- Gaps Between Head Restraint and Seat Back: We added a manufacturer option under which the gap requirement may be met by either the existing FMVSS No. 202a procedure using a sphere or one based on the measurement methodology set forth in United Nations Economic Commission for Europe (UNECE or ECE) Regulation No. 17, *Uniform Provisions concerning the Approval of Vehicles with regard to the Seats, their Anchorages, and any Head Restraints.*
- Backset and Height Retention (Lock) Tests: We specified that instead of returning to the reference loads of 37 Nm and 50 N after application of the peak load during these tests, that the load be reduced to zero and then increased to the reference loads.

The agency also denied a related petition for rulemaking, submitted by Kongsberg, in that document. Kongsberg's petition for rulemaking had made requests in the areas of effective backset, backset retention and displacement, height retention, non-use position, definition of rear restraint, gaps, and removability of head restraints.

D. Global Technical Regulation on Head Restraints

In the preamble to the May 2007 final rule, we explained that the agency had separately been leading efforts to develop a GTR on head restraints We noted that the work on the GTR had been proceeding at the same time that NHTSA had been evaluating the petitions for reconsideration of the December 2004 final rule, and that some of the issues that were the subject of the petitions for reconsideration had also been raised in the context of the GTR.

We explained that in the May 2007 document, we were addressing those issues in the context of the petitions for reconsideration of the recently upgraded FMVSS No. 202. We explained further that if the development of the GTR continued to proceed successfully and it was ultimately adopted, and if the U.S. had voted for its adoption, NHTSA would issue an NPRM based on the GTR for a new FMVSS.

After publication of the May 2007 document, the development of the GTR on head restraints did continue to proceed successfully. It was adopted in March 2008 by a vote taken by the World Forum for Harmonization of Vehicle Regulations (WP.29). The U.S. voted for its adoption. Prior to the vote, on February 14, 2008, NHTSA published in the **Federal Register** (73 FR 8743) a request for comments [4] on the GTR to inform its decision on the vote.

The agency explained in the February 2008 request for comments that once the GTR was established through consensus voting at WP.29, NHTSA would initiate domestic rulemaking to amend its existing FMVSS to incorporate approved provisions of the GTR. The agency explained that this would allow for further opportunity to consider comments from interested parties through the rulemaking process. NHTSA noted that if its rulemaking process leads it to either not adopt or to modify aspects of the GTR, the agency would seek to amend the GTR in accordance with established procedures

[3] Non-contact Abbreviated Injury Scale (AIS) 1 neck.

[4] Docket No. NHTSA–2008–0016.

under the 1998 Global Agreement and WP.29, as it did with the door lock GTR.

NHTSA is currently in the process of developing an NPRM based on the head restraints GTR.

E. Petitions for Reconsideration of May 2007 Final Rule and Related Submissions

NHTSA received a total of seven submissions in response to, or related to, the May 2007 final rule. These documents included ones styled as petitions for reconsideration, petitions for expedited rulemaking and a statement of support for one of the petitions for expedited rulemaking.

While one of the documents, submitted by Kongsberg, was called a petition for reconsideration, some of its requests are not for reconsideration of the May 2007 final rule. Instead, they either request reconsideration of the agency's denial of that company's petition for rulemaking or are new requests for rulemaking. NHTSA does not have procedures for requesting reconsideration of denials of petitions for rulemaking. However, to the extent a petitioner provides new information, the agency may consider such a document as a new petition for rulemaking. We will treat these parts of Kongsberg's petition as a petition for rulemaking.

Petitions for reconsideration of the May 2007 final rule were received from the Alliance of Automobile Manufacturers (Alliance), Vehicle Services Consulting, Inc. (VSCI), and Kongsberg. The Alliance is a trade organization of motor vehicle manufacturers. VSCI is a company that assists small volume vehicle manufacturers with U.S. certification related matters.

Petitions for rulemaking were received from the Alliance, Mitsubishi Motors R&D of America (Mitsubishi) and Kongsberg. The Association of International Automobile Manufacturers (AIAM) submitted a letter in support of the Mitsubishi petition.

The American Association for Justice (AAJ) submitted a document that is styled as a petition for reconsideration and objects to the agency's discussion of implied preemption. The agency does not consider this to be a petition for reconsideration, as NHTSA's preemption discussion is not a rule.

We believe that a fundamental misunderstanding lies at the heart of petitioners' characterization of the discussion in the final rule. AAJ has mistakenly characterized the agency's discussion of implied preemption, a discussion that we included in approximately two dozen other Federal motor vehicle safety standard rulemaking notices issued from February 2007 to November 2008. We explained those discussions at length in a June 14, 2010 final rule on FMVSS No. 305 (75 FR 33515, at 33524–33525), which we believe has addressed the concerns of AAJ and PC on this subject.

To summarize the agency's discussion in the FMVSS No. 305 final rule, in each of the **Federal Register** notices discussing *Geier* v. *American Honda Motor Co.,* 529 U.S. 861 (2000) and the agency's response to Executive Order (E.O.) 13132, NHTSA sought to explain that we had examined whether there might be any possible basis for a judicial finding of implied preemption of state tort law. In all but a few of those notices, we concluded each examination without identifying any potential obstacle or conflict that might give rise to such a finding.[5] The FMVSS No. 305 final rule explained that the agency has increasingly clarified and amplified its discussion responding to E.O. 13132 in an attempt to end the misunderstandings and assuage concerns about the preemption discussion. Readers are referred to that document for a full discussion of the language in question. Similarly, NHTSA clarified the discussion of E.O. 13132 in the FMVSS No. 305 final rule. The agency's discussion in that document should eliminate commenters' misunderstandings about this topic.

The specific requests in the various petitions, broken down by subject matter, are discussed briefly below.

1. Petitions for Reconsideration

a. Rear Seat Non-Use Positions

Under FMVSS No. 202a, head restraints installed in the rear seats are permitted to have a "non-use" position, in which they are not required to meet in-use performance requirements. Some of the reasons for such a position are to help improve rear visibility, prevent the head restraint from interfering with the seat being stowed, and to facilitate child seat attachment. However, in developing the upgraded head restraint standard, NHTSA was concerned that passengers may inadvertently occupy the seat with the head restraint in the non-use position, thereby depriving themselves of the whiplash protection afforded by the head restraint.

In order to permit the non-use position, yet mitigate the potential dangers, the agency required head restraints that can be adjusted to such positions to meet one of three options, which are set forth in paragraphs S4.4(a)–(c) of FMVSS No. 202a. One option (a) was that a head restraint in a non-use position must automatically return to a normal "use position" when the seat is occupied by a test dummy representing a 5th percentile female. The second option (b) was that the head restraint must be capable of manually rotating at least 60 degrees forward or rearward, between the use position and the non-use position. This option, while not necessarily physically preventing a passenger from sitting in a seat with the head restraint in the non-use position, would at least provide a clear visible cue that the head restraint was not properly adjusted. The third option (c) was that the head restraint in the non-use position must cause the torso of a test manikin to move forward by at least a 10-degree angle when compared to its angle when the head restraint is in a use position. This has the effect of making most passengers uncomfortable, which provides a strong cue that the head restraint is not in the proper position.

Some petitioners for reconsideration requested that this third option be broadened. Specifically, the Alliance requested that the agency modify the standard by allowing a rear head restraint in the non-use position to only cause the torso to move 5–10 degrees forward, rather than at least 10. Essentially, the Alliance was asking that the head restraint not have to jut out as much as it currently must in order to provide the physical cue to the passenger that it is out of position. There were two rationales offered for this. First, the Alliance believed that it would be difficult to design stow-away seating if the head restraint had to protrude so far as to cause the torso angle to move forward 10 degrees. Second, the Alliance argued that the mechanics required by the 10-degree torso angle change would cause problems with certain child seats.

b. Leadtime for Small Vehicle Manufacturers

The agency was also petitioned to extend the leadtime for small manufacturers. Specifically, VSCI petitioned the agency to permit small-volume manufacturers (SVMs) to comply with FMVSS No. 202a only at the end of the phase-in period, rather than having to phase in the new head restraint requirements like other manufacturers. The standard specifies that mandatory compliance begins on September 1, 2009, with at least 80% of vehicles manufactured during the production year beginning on that date being compliant with FMVSS No. 202a for front seat head restraints. By

[5] The May 2007 final rule on FMVSS No. 202a was one of many notices in which we did not identify any potential obstacle or conflict.

September 1, 2011, 100% of all head restraints in both the front and rear seats must be compliant with the new standard.

The specific phase-in percentage requirements are shown by the table below.

Date	Front seats (%)	Rear seats (%)
Production Year Beginning September 1, 2009	80	0
Production Year Beginning September 1, 2010	100	80
September 1, 2011	100	100

VSCI requested that SVMs, that is, manufacturers which produce less than 5,000 vehicles per year for sale in the U.S., not be required to comply with FMVSS No. 202a until September 1, 2011, the end of the phase-in period. VSCI's reasoning is that if a SVM produces only one line of vehicles, if it changes the head restraint for one vehicle, it changes it for 100% of its line. Thus, unless a SVM has more than four vehicle lines, requiring 80% compliance is no different than requiring 100% compliance. Furthermore, VSCI suggests that an extension of the effective compliance date could help SVMs integrate the new head restraint requirements with the start of a new product cycle, rather than having to integrate them in the middle or end of a cycle.

Finally, VSCI argues generally that SVMs should always be permitted to comply with new standards at the end of phase-in cycles, due to the fact that the nature of their businesses frequently make partial compliance with standards not an option. VSCI also requested that the agency formally adopt VSCI's definition of a SVM, which is: "*an original vehicle manufacturer that produces or assembles fewer than 5,000 vehicles annually for sale in the United States.*"

c. Static Lockout of Active Head Restraints During Backset Retention Testing

The next issue is somewhat complex to explain. Certain head restraints, known as "mechanical active head restraints," move with respect to the seat due to occupant loading. This means that these systems move the head restraint forward and up by activation of a lever mechanism in the seat back. While this helps to ensure proper head restraint placement for human occupants, it can create a problem when developing a static [6] test. When the backset retention test [7] is performed, the seat back is loaded through a backpan.[8] For mechanical active head restraints, this loading activates the lever and pivots the head restraint forward. This is followed by loading of the head restraint through a head form, which tends to rotate the head restraint rearward. Thus, the head restraint is placed in an unstable condition and is no longer acting as a rigid body. Under such conditions, it would be difficult to meet the backset displacement limits.[9] To address this testing problem, in the May 2007 final rule the agency modified the test procedure to allow those kinds of head restraints to be fixed in the unoccupied seat position for purposes of the test. This solved the problem of testing active head restraints in a static manner. For reference, the regulatory text (emphasis added) of 5.2.7(a) states that for head restraints that *move with respect to the seat when occupant loading is applied to the seat back,* S5.2.7(a)(1) through (8) may be performed with the head restraint *fixed in a position corresponding to the position when the seat is unoccupied.*

One petitioner, Kongsberg, made three separate requests with regard to this particular requirement. First, it asked that the agency clarify the fixation allowance by specifying that the fixation of the active head restraint occur closest to the occupant loading and not closest to the head restraint. It justified this by arguing that there will be looseness throughout the active head restraint mechanism. Second, it requested that NHTSA "set a minimum level of 'forward movement.'" Lastly, it requested that this fixation allowance be extended to electronically triggered active head restraints in addition to those activated by occupant loading (body triggered). It argued that to limit the allowance to body-triggered systems is not providing a standardized test for all technologies.

Specification of Fixation Point

Kongsberg's first request (part 6.1 of its submission) relates to the specific nature of where a mechanical active head restraint should be fixed for purposes of the static backset retention test. As paragraph S5.2.7(a) currently states, the head restraint is "fixed in a position corresponding to the position when the seat is unoccupied." However, some mechanical active head restraints may have several linkages that transfer occupant loading on the seat back into head restraint movement. In that case, the petitioner stated, the regulatory text as written would allow fixation at any of these points if it ultimately restricts the head restraint from activation under seat back loading.

Instead, Kongsberg requested that the agency change the regulatory text to require that mechanical active head restraints be fixated at the linkage point closest to the occupant loading. Doing otherwise, the petitioner argued, would give an unfair advantage to mechanical active head restraints, because they could be fixated at the point where the head restraint connects to the seat back rather than where it first feels the force of the occupant loading. If this were the case, then a mechanical active head restraint could pass the retention test, even if there was looseness in the head restraint-seat back connection, where a different type of head restraint with the same strength characteristics would not have passed.

Limiting the Fixation Option to Head Restraints That Have a Minimum Level of Forward Movement

The next point from Kongsberg's petition (part 6.2) in this area is its request that NHTSA set a minimum level of "forward movement." While the precise request being made is not clear, it is effectively asking NHTSA to functionally define how far an active mechanical head restraint must be able to move forward in order to be classified as such, and therefore, take advantage of the ability to be fixated during static testing of head restraint displacement.

Expansion of Fixation Option to Reactive and Electronically-Triggered Head Restraint Systems

Third, Kongsberg petitioned the agency (part 6.2.2 of its submission) to expand the fixation option to include all reactive and electronically triggered head restraints during static testing. Currently, this option is only available for "head restraints that move with respect to the seat when occupant loading is applied to the seat back," that is, for active mechanical head restraints. Kongsberg, in the background section of its submission, defined two broad categories of head restraints: "reactive systems," in which energy from body

[6] Alternatively, manufacturers have the ability to certify to a dynamic test requirement.

[7] The backset retention test helps ensure that when the head is forced back, as in a crash, the head restraint stays in position.

[8] A backpan is the part of the manikin that rests on the seat back.

[9] To pass the backset retention test, the head form must not move more than 25 mm during the application of the initial reference load (S4.2.7(a)(1)), not be displaced more than 102 mm during application of the peak load (S4.2.7(a)(3)), and return to within 13 mm of the initial reference position when unloaded to the reference load level (S4.2.7(a)(3)).

mass is transferred to mitigate the impact of a head on a head restraint; and "proactive systems," in which stored energy is released to mitigate the impact. The petitioner claimed that permitting the fixation option for only active mechanical head restraints, is not providing standardized testing of all technologies. For example, electronically triggered head restraints also move during impact, but do not qualify for the fixation option because they do not move with respect to the seat in response to occupant loading. Kongsberg would like NHTSA to permit all of these types of head restraint systems to be fixed in position for purposes of static testing.

d. Clarifying Definition of Adjustable Head Restraints

Kongsberg made a request that the agency clarify the definition of "adjustable head restraints." Specifically, Kongsberg requested that they be defined "in such a way that it is only possible to classify into the 'adjustable' category, head restraints which have no adjustment locks, yet lock into just a single in use locking position." It added that "[t]his could be either a traditional head restraint with separate cushion which has a one time lock into use position or an advanced stowage mechanism which again has only a single in use lock position."[10]

The stated purpose of this definition would be to clarify that the types of head restraints described above could be classified as "adjustable" head restraints, thereby permitting them to use the 25 mm cylindrical gap test as per paragraph S4.2.4.2. The option to use the 25 mm cylindrical gap test was added in the May 2007 final rule.

e. Technical Amendments

In addition to the substantive issues, several issues of technical clarification and one issue of a clerical nature were brought to the agency's attention.

2. Petitions for Rulemaking

a. Discomfort Metric for Non-Use Position and Relaxation Requirement for Gap

Two petitioners, Mitsubishi and the Alliance, requested that the agency do rulemaking, preferably on an expedited basis, on something known as a "discomfort metric." The discomfort metric is a mechanism, adopted as part of the GTR for head restraint systems, for measuring the level of discomfort imposed by a head restraint system in a non-use position. This discomfort would, in theory, lead the occupant of the seat to adjust the head restraint to an in-use position. The petitioners requested that NHTSA incorporate the discomfort metric as an additional rear head restraint non-use position compliance option in paragraph S4.4. Additionally, Mitsubishi petitioned the agency to add a relaxation requirement for the gap within the head restraint. This relaxation requirement is also a part of the GTR, and Mitsubishi requested that the agency do an "expedited rulemaking" to incorporate both of these provisions.

b. "Effective Backset"

Kongsberg requested that the agency replace its backset requirement (of 55 mm) with an "effective backset" requirement (of 58.5 mm) when a 10 N load is applied to the head restraint. According to the petitioner, this additional 3.5 mm represents the amount of displacement/compression one would expect from applying that reference load. Backset, as described in paragraph S5.2.3, is the distance between the rear of the head form and the front edge of the head restraint. This is currently a simple measurement, and is taken without applying force to the head restraint that would cause displacement.

The petitioner's concept of effective backset is that the backset should be measured with a certain amount of force applied to the head restraint. According to the petitioner, various features of the head restraint, such as a layer of soft "comfort foam" on the outside, air gaps within the restraint, or looseness in the connecting mechanisms (if they exist), could displace with a small amount of force applied to the head restraint. Therefore, according to Kongsberg, measuring the backset with a small amount of force (sometimes called a "reference load") on the head restraint provides a better indication of where the head restraint will begin to apply significant resistance to a rearward-moving head.

Kongsberg also requested that the agency adopt requirements for rear seat effective backset as an alternative to its backset *retention* requirements for rear seat head restraints. It requested a 58.5 mm effective backset for rear seat head restraints with only one locking position, and an 80 mm effective backset for rear seat head restraints with multiple locking positions. While currently head restraints in rear seats do not have backset requirements (that is, manufacturers can choose a backset value for reasons of occupant comfort or other design considerations),[11] the head restraints are required to be able to withstand substantial loads from wherever they are placed. In the first part of the retention requirement, head restraints must displace no more than 25 mm when a 37 Nm reference load is applied. The head restraint is then loaded to 373 Nm (with a 102 mm displacement limit) and finally unloaded to the reference value (where it must be within 13 mm of the reference position).

This, according to Kongsberg, results in head restraints with an advanced stowage mechanism and only a single locking position, being penalized. It similarly stated that head restraints with multiple locking positions should have relief, as long as they stay within the overall limit of the effective backset.

III. Agency Response to Petitions for Reconsideration of May 2007 Final Rule and Technical Amendments

A. NHTSA Declines To Adopt a 5-Degree Torso Change Angle for Rear Seat Non-Use Positions

With regard to non-use positions for rear seat head restraints, NHTSA has provided a variety of options in FMVSS No. 202a. Specifically, a manufacturer can choose one of four routes to comply with the standard. It can:

(1) Use a removable head restraint.

(2) Have a non-use position that produces a 10-degree torso angle change.

(3) Have a non-use position that rotates 60 degrees.

(4) Have a non-use position that automatically positions the head restraint when the seat is occupied.

The Alliance's petition seeks to expand these options by modifying the torso angle change option to create a torso angle change of anywhere from 5 to 10 degrees. The basic rationale behind the Alliance's petition is that the 10-degree torso change option is not adequate to accommodate the popular feature of stowing rear seats in the floor of a vehicle, and that a 5-degree option would be more flexible. In its petition[12], the Alliance stated:

> [U]nfortunately, the approach taken in the final rule may not provide the intended flexibility because it would require the addition of material to shingled head restraints. In some vehicle configurations this additional sizing would negate the ability to stow seats and could potentially lead to unintended consequences to children (in and out of child seats) and smaller occupants, such as interference with tall child seats and

[10] Kongsberg petition, 4.2.1.

[11] Most of the benefits of rear head restraints come from the height, not the backset.

[12] Docket No. NHTSA–2007–27986–0012, p. 1.

head/neck interference with small occupants. As a result, balancing the tradeoffs associated with the additional option the Agency sought to provide leads to an option that is not in fact a viable option for some manufacturers.

NHTSA does not agree that permitting a 5-degree torso angle change option is a necessary or appropriate change, nor do we believe that it provides nearly as many safety benefits as the 10-degree option.

To begin, we will reiterate the rationale used in the 2007 final rule to explain why NHTSA is limiting the torso angle change to 10 degrees. The torso angle change option is effective for the following reasons: When the head restraint protrudes so far as to cause the average occupant's torso to move forward by 10 degrees, the occupant will feel discomfort and a physical cue that the head restraint is out of position, and therefore adjust it so it functions properly. In its human factors study,[13] the agency found that a 5-degree torso angle change does not cause occupants to realize that the head restraint is in a non-use position, and therefore adjust it, nearly as often as a 10-degree torso angle change does. The study showed that while a 5-degree change induced occupants to adjust the head restraint a mere 15 percent of the time, whereas a 10-degree change had the desired effect 80 percent of the time. As we stated in the 2007 final rule, it was the results of this study that caused the agency to decline the petitioner's request to permit a 5-degree torso angle change.

In this new petition, the Alliance offered two arguments as to why NHTSA should reconsider its reliance on the human factors study and permit use of a 5-degree torso angle change option. First, it argued that the NHTSA human factors study was limited to adults over 60 inches, and thus did not account for the fact that the majority of occupants in rear seats are likely to be shorter (*i.e.,* children). Second, the Alliance stated that head restraints that use a 10-degree torso angle change may interfere with the functioning of some child seats. Additionally, the Alliance argued, as stated above, that some vehicle designs may not be compatible with a head restraint that uses the 10-degree torso angle change option. We will address these arguments below. (We also note again that there are several other alternative means of compliance.)

With regard to the human factors study, while NHTSA is aware that it focused on adults, the agency does not consider that to be a defect with the study. The Alliance pointed out that the occupants in the study were at least 60 inches tall, whereas, according to National Automotive Sampling System (NASS) General Estimates System (GES) data, 43 percent of crash-involved occupants of rear seats are under that height. This should, according to the Alliance, "lead to a conclusion that the 10 degree torso angle displacement requirement, while potentially preferable to force a response from taller adults, leads to designs that are too stringent for children and child seats in certain vehicle configurations."

NHTSA does not believe that the fact that the human factors study focused on adults over 60 inches impairs the relevance of that study, nor did the Alliance present any data that this fact should cause NHTSA to question to efficacy of the 10-degree torso angle change option. With regard to the height of the occupants in the study, the reason that NHTSA focused on taller occupants is that these are the only occupants that benefit from rear seat head restraints. As stated in the human factors study:

> The height of rear seat passengers directly impacts where the stowed head restraint would contact them. To determine how the subject seat might interact with occupants of different heights, the dimensions of the subject seat were measured. The seat dimensions were considered along with standard sitting shoulder height values for adult males and females to establish the range of occupant heights that would be most likely to experience discomfort due to a stowed head restraint. The standing height values used for recruitment were established through extrapolation from the sitting shoulder height values.
>
> The height of the lower edge of the stowed head restraint in the test vehicle is approximately 18.5 inches with respect to the seat pan * * *. It appeared that an occupant whose sitting shoulder height is approximately this value would not be uncomfortable with the head restraint fully stowed. It was unclear how much greater than 18.5 inches the threshold lies at which an occupant's sitting shoulder height would be sufficiently large for the person to experience discomfort.
>
> The height at which children are no longer required to be seated in a child safety seat is 57 inches. A 57-inch tall child (10–12 yrs old) would have a sitting shoulder height of about 19.3 inches (based on extrapolation from NIST data found on the Internet). Since in its stowed position, the bottom of the head restraint is at 18.5 in, a 57-inch tall child may not be tall enough to experience discomfort created by a stowed head restraint. Furthermore, children of this age may not be mature enough to conclude that something is wrong with the seat configuration if they experience only minor discomfort. For this reason, as well as the difficulty in recruiting minor subjects, participants less than 18 years of age were not pursued.[14]

In summary, occupants less than 60 inches tall are unlikely to receive any benefit from the torso angle change option, either because the head restraint is too high to cause them discomfort, or because they are too young to understand to adjust the head restraint if it is causing them discomfort. On the other hand, the human factors study did show that, for occupants tall enough to benefit from a head restraint (that is, adults over 60 inches), a 5-degree angle change is insufficient to cause them to adjust the head restraint to the use position, while a 10-degree change does have the desired effect.

We would further note that NHTSA did conduct at least one test involving a 10-year old occupant using 5-, 10-, and 15-degree torso angle change positions. The Alliance petition included the 10-degree condition image from the report as an example of a child's head in what they claimed was a non-preferred position. However, neither the human factors study nor NHTSA has ever stated that subject had any negative opinion about the 10-degree condition. Nor do we have any other information that leads us to believe that short stature occupants such as children in booster seats and older children without boosters would have disaffection for the 10-degree condition. The petition did not claim any data to this effect.

Second, the Alliance asserted that a 10-degree torso angle change can interfere with certain child restraint systems (CRSs). Specifically, it raised a concern about the potential inability to secure a rigid forward-facing ISOFIX CRS to a seat that meets the 10-degree torso angle change design. One potential problem it gave was that "the connection necessary for a rigid ISOFIX CRS anchorage may not be possible in some vehicle configurations if the head restraint is built to conform to a 10-degree torso angle displacement." Additionally, for occupants using high-back CRSs, the torso displacement criteria would result in forward or rotational displacement of the child seat. Finally, it stated that children in backless booster seats or not seated in child restraint systems could experience head and neck interference by head restraints designed to the 10-degree torso angle change criteria.

There are several reasons why NHTSA does not consider this a valid argument for permitting a 5-degree torso angle change option. The first is, again,

[13] DOT HS 809 957, "Rear Seat Stowable Head Restraint Non-Use Position Torso Angle Study," November 2005.

[14] DOT HS 809 957, "Rear Seat Stowable Head Restraint Non-Use Position Torso Angle Study," November 2005, p. 13–15.

that the NHTSA study indicated that a 5-degree change simply does not cause a rear seat occupant to adjust an out-of-position head restraint. Thus, a line of reason arguing that a 5-degree change could better accommodate certain CRSs does not address the fundamental rationale for disallowing a 5-degree option. Second, NHTSA is aware that contact occurs between current non-regulated rear seat head restraint designs with certain forward-facing CRSs, and typically adjusting the seat back and/or head restraint can achieve proper CRS orientation. Sometimes, depending on the design of the CRS, seat, and head restraint, it may be necessary or easier to simply remove the head restraint to properly install the CRS, which is one reason why NHTSA continues to allow head restraint removal as an option (see 69 FR 74871). The mere fact that one permissible non-use option may not work for all CRS/seat configurations is not sufficient justification to allow a relatively unsafe non-use position option. Finally, we do not believe that there are currently any forward-facing ISOFIX CRSs on the market, thus their potential lack of compatibility with a 10-degree design is of limited significance.

The Alliance raised the issue of high-backed CRSs, as they are most likely to contact the head restraint in the lowered, non-use position. This is not new information, and was addressed in the 2004 Final Rule. We believe that the statement in that rule is still appropriate:

> With respect to comments pertaining to the potential incompatibility between rear head restraints and some high-back hybrid child restraints and boosters, NHTSA notes that high-back child restraints are used in Europe with no reports of incompatibilities. As Magna commented, rear seat head restraints are much more common in Europe due to competitive pressures. Nonetheless, if incompatibilities arise in this country, they can be resolved by several means. First, we believe that an adjustable head restraint is likely to have a position that does not interfere with high back hybrid child restraints. That is, raising the head restraint may alleviate the potential interference. Second, the high-back child restraint can be installed in a seating position for which a head restraint is not provided, removable, or has a non-use position. We note that even where rear outboard head restraints are provided, many vehicles do not provide a head restraint in the center seating position. We recognize that, even with the flexibility afforded to the manufacturers with respect to rear seat head restraints, there may be isolated situations where certain high back child restraints are not compatible with specific seating positions in certain vehicles. However, we expect this to be relatively infrequent. In short, the agency does not believe that the possible incompatibilities are insurmountable even in situations in which rear seats are equipped with optional head restraints.[15]

Because the petitioner did not provide new data regarding the safety benefits of a 5-degree torso angle change design, or interference between head restraints and CRSs, we are not adopting that option for the rear seat head restraint non-use position.

B. NHTSA Declines To Permit Additional Leadtime for Small Vehicle Manufacturers

In light of the fact that FMVSS No. 202a's head restraint requirements are phased in over a period of several years, VSCI petitioned the agency to permit small volume manufacturers (SVMs) to wait until the end of the phase-in period to comply with the standard. Its rationale is that while multiple-line manufacturers will only need to convert a portion of their fleets to the new head restraint requirements by the respective phase-in dates (September 1, 2009 for front seat head restraints, and September 1, 2010 for rear seat head restraints), a SVM with only one or two vehicle lines would need to convert all of its vehicle lines to the new head restraint requirements, while a large manufacturer with many lines would only need to convert 80 percent of its vehicles. VSCI stated, "[i]t would not allow such SVMs the full amount of time that large manufacturers have for redesign, testing, 'implementing changes with the start of a new model cycle,' and 'additional flexibility in meeting these challenges.'"[16] Therefore, according to the petitioner, SVMs are particularly burdened by this rulemaking. We note that this argument is not specific to the head restraints at issue, but in fact could be applied to virtually any requirement with a phase-in period.

NHTSA declines to adopt this general argument. We note that the burden of designing new head restraints to meet the requirements of the upgraded FMVSS No. 202a is likely to be more for larger manufacturers, as they will have to design compliant head restraints for a larger number of vehicles, whereas SVMs, even if by the nature of their product lines are required to bring all of their vehicles into compliance at the start of the phase-in period, will only have to design compliant head restraints for a small number of vehicle lines.

More importantly, we do not agree with the inherent logic of the argument that SVMs should be permitted, generally, to delay any compliance until the end of the phase-in periods for new requirements. VSCI stated that over the past seven years, the agency has on numerous occasions permitted SVMs to delay compliance until the end of the phase-in periods. However, in previous rulemakings where NHTSA has done this, it has given specific reasons—related to the standard at issue—for permitting additional leadtime for SVMs. For example, in the 2000 FMVSS No. 208 final rule, we stated that SVMs do not have the access to new technology at the same time as larger manufacturers.[17] With regard to advanced air bags, the subject of that rulemaking, there were specific issues of a complex upgrade and short leadtime. Thus, there were specific reasons for excluding SVMs from compliance with the standard until they had been given more time to prepare. With regard to the head restraint requirements of FMVSS No. 202a, however, we do not believe this to be the case. There has already been substantial leadtime since publication of the 2004 Final Rule and the 2007 Final Rule in response to petitions for reconsideration. Furthermore, the technologies required to comply with FMVSS No. 202a are not particularly complex or novel. For those reasons, we decline to grant additional leadtime to SVMs. Since we are not granting additional leadtime to SVMs, VSCI's request that we adopt its definition of a SVM is moot.

C. Static Lockout of Active Head Restraints During Backset Retention Testing

As currently specified in paragraph S5.2.7(a), mechanical active head restraints (that is, head restraints that move with respect to the load on the seat) are fixed in their undeployed position for static testing purposes. NHTSA modified the backset retention test procedure (S5.2.7(a)) in the 2007 final rule by allowing mechanical active head restraints the option of being fixed in position during the test. This was done in response to several petitions requesting that the agency allow more displacement for these types of head restraints, as they were unable to meet the 25 mm requirement due to their active design. Instead of granting additional leeway for displacement, however, NHTSA instead included a provision permitting mechanical active head restraints to be fixed in position. As we stated:

> We note that the agency anticipated that there may be advanced designs which, by their active nature, are unable to pass the

[15] 69 FR 74847, 74871.

[16] VSCI petition, Docket No. NHTSA–2007–27986–0010.

[17] 65 FR 30720.

static test requirements in their undeployed positions. This is why the dynamic compliance option was provided.

However, while the dynamic compliance option is specifically in place for active systems, it has never been our intention to exclude active systems from certifying through the static option. However, the agency has emphasized that such static compliance must be in the undeployed condition.

Based on our desire to not exclude the possibility of active systems being certified to the static option, we have decided to permit active systems to be fixed in their undeployed position during the retention tests. We are including a specific manufacturer option to this effect in FMVSS No. 202a.[18]

As discussed above, Kongsberg petitioned for a variety of clarifications and amendments with regard to static testing of active head restraints for purposes of the backset retention test. The company asked the agency to specify exactly where the head restraint should be fixed, assuming there are multiple locations in the deployment mechanism it can be fixed at. Kongsberg also asked NHTSA to give guidance as to how far forward a head restraint must be able to move before it can be qualified as an active head restraint. Finally, the company also asked NHTSA to expand this option beyond mechanical active head restraints, to include what it refers to as "reactive" head restraints as well as to those that are electronically-triggered. Our responses to each of these three requests are set forth below.

1. NHTSA Agrees To Specify the Fixation Point for Static Testing of Active Mechanical Head Restraints

In part 6.1 of its petition, Kongsberg makes the following statement:

> Within advanced head restraint systems, there will always be freeplay within the moving parts resulting in system looseness. Kongsberg requests that NHTSA clarify the test procedure in such a way that specifies the procedure for fixating the head restraint. That is fixation of the advanced mechanism should occur closest to the occupant loading and not closest to the head restraint.

NHTSA believes that Kongsberg's request to specify the fixation point has merit. For a mechanical active head restraint, there is a mechanism that translates pressure on the seat back (caused by the body being pressed back into the seat, such as during a rear impact) into forward movement on the head restraint, to protect against whiplash. As Kongsberg pointed out, a mechanical active head restraint may have multiple linkages. For example, there may be one linkage where the seat back connects to the head restraint, and another that moves when the occupant's back presses into the front surface of the seat back. These components could be connected directly or be connected through intermediate linkages. As the specification is currently written, the regulatory text would allow fixation at any of these linkage points, so long as doing so prevents the head restraint from moving forward when pressure is applied to the seat back. Kongsberg requests that NHTSA clarify this ambiguity by specifying that the fixation must occur at the point closest to the point where the force from an occupant's torso would activate the head restraint.

We agree with Kongsberg's request for two reasons. First, the request helps to resolve an ambiguity in the requirement—given multiple locations where a head restraint could be fixed in a static position, it provides clarity for NHTSA to specify which one is used. Second, having the fixation requirement located at the spot closest to the occupant's torso loading helps to prevent a situation where a mechanical active head restraint could be less effective than another type of head restraint. This would occur if a test fixed the head restraint at the point where the seat back connects to the head restraint, instead of another location closer to where occupant loading occurs. In this situation, the test would not account for looseness in the linkage between the head restraint and the seat back—a problem that would have been uncovered if a different type of head restraint had been used where no fixation was necessary to undertake a static test. This would result in the head restraint passing the test when force is applied to the seat back, but still moving too far when in use, and an occupant strikes the head restraint.

For these reasons, we are revising S5.2.7(a) to provide that the fixation is applied to the member(s) that first transmit(s) the seat back loading from the occupant to the head restraint.

2. NHTSA Declines To Specify a Minimum Forward Movement Requirement for Static Testing of Active Mechanical Head Restraints

Kongsberg also requested that "NHTSA set a minimum level of 'forward movement' to clarify this new rule."[19] This request is effectively asking NHTSA to functionally define how far an active mechanical head restraint must be able to move forward in order to be classified as such, and therefore, take advantage of the ability to be fixated during static testing of head restraint displacement.

After considering this request, we have decided not to define a minimum forward movement criterion for active head restraints. We believe the limitation in the regulatory text that this option is available only for "head restraints that move with respect to the seat when occupant loading is applied to the seat back" excludes typical adjustable head restraints. The agency does not believe there is ambiguity on that issue, and therefore believes that there is not a problem that needs to be addressed. Second, we do not have any data on what, if any, lower limit to place on the movement of a mechanical active head restraint, nor did the petitioner supply any data or offer a suggestion. Given these factors, we are not proceeding on this request.

3. NHTSA Declines To Expand the Fixation Option to "Reactive" and Electronically Triggered Head Restraints

The third request that Kongsberg put forth (in part 6.2.2 of its petition) was to expand the fixation option from mechanical active head restraints to all "reactive" and "proactive" head restraints. Kongsberg defines these terms in the background section (part 1.0 of its petition). Reactive head restraints, according to the petitioner, are those where energy from body mass is transferred to the head restraint to mitigate the impact. Proactive head restraints, on the other hand, are those where stored energy is released to mitigate the impact of the head on the restraint. Generally, proactive head restraints would be electronically triggered at the time of a crash.

Kongsberg's request is that vehicle manufacturers be permitted to certify all head restraints that move with respect to the seat back through a static test with the head restraint in a fixed position, as they can do with mechanical active head restraints. It claimed that this would put all reactive and proactive head restraints in the same position, and that not allowing this is creating special rules for one segment of technology.

NHTSA declines to adopt Kongsberg's request and disagrees with its reasoning on this point. The rationale for permitting the fixation option for mechanical active head restraints, as explained in the 2007 rule, is not applicable to the other types of head restraints that Kongsberg described. The fixation option was created because mechanical active head restraints move relative to the seat back when the

[18] 72 FR 25484, 25504.

[19] Kongsberg petition, part 6.2.1.

backpan, simulating the back of an occupant, applies a load to it. Therefore, they would almost certainly fail the initial backset displacement test. Using the fixation option solves this limited problem, allowing mechanical active head restraints to be tested in the static test like all other head restraints. Electronically-triggered "proactive" head restraints, on the other hand, do not move when the backpan applies a load to the seat back. Therefore, there is no need for fixation.

D. "Adjustable" Head Restraints and Availability of 25 mm Cylindrical Gap Test Option

As indicated above, Kongsberg made a request that the agency clarify the definition of "adjustable head restraints." Specifically, Kongsberg requested that they be defined "in such a way that it is only possible to classify into the 'adjustable' category, head restraints which have no adjustment locks, yet lock into just a single in use locking position." It added that "[t]his could be either a traditional head restraint with separate cushion which has a one time lock into use position or an advanced stowage mechanism which again has only a single in use lock position." [20]

The stated purpose of this definition would be to clarify that the types of head restraints described above could be classified as "adjustable" head restraints, thereby permitting them to use the 25 mm cylindrical gap test as per paragraph S4.2.4.2. The text of S4.2.4, *Gaps,* states that all head restraints must meet limits for gaps in the head restraint specified in S4.2.4.1, and that for gaps between the seat and head restraint, *adjustable head restraints* must meet either the limits specified in S4.2.4.1 or S4.2.4.2. [emphasis added]

S4.2.4.2 of FMVSS No. 202a is titled *Gaps between the adjustable head restraint and seat using a 25 mm cylinder.*

The purpose of Kongsberg's petition on this issue appears to allow a head restraint design that does not have multiple positions of adjustment to take advantage of the compliance option given in S4.2.4.2. The design in question can move with respect to the seat back, but only locks in a single in-use position. To accomplish this, Kongsberg recommended specifically defining this type of head restraint as being "adjustable." Kongsberg stated in its petition that NHTSA has provided definitions for three types of head restraints (integral, adjustable, and active). While the definitions were not integrated into the text of Standard No. 202, these types of head restraints were discussed in the preamble of the **Federal Register** notice of May 4, 2007. In that document, we stated:

> Vehicle manufacturers currently use three types of head restraints to meet the requirements of FMVSS No. 202. The first type is the "integral head restraint," which is non-adjustable and is built into the seat. It typically consists of a seat back that extends high enough to meet the height requirement of the standard. The second type is the "adjustable" head restraint, which consists of a separate cushion that is attached to the seat back, typically by two sliding metal shafts. Adjustable head restraints typically adjust vertically to accommodate different occupant seating heights. Some also provide adjustments to allow the head restraint to be moved closer to the occupant's head. The third type is the active head restraint system, which deploys in the event of a collision to minimize the potential for whiplash. During the normal vehicle operation, the active head restraint system is retracted.[21]

We did not include definitions in the regulatory text because distinctions between the types of head restraints are not typically necessary. In general, the performance requirements of FMVSS No. 202a are applicable for all types of head restraints and adjustable head restraints are specifically referenced to indicate the "adjusted" position they are to be configured in for testing. This is also the case in S4.2.4.1 and S4.2.4.2, which indicate that adjustable head restraints are to be placed in their lowest height position and any backset position.

However, a unique feature of S4.2.4 is that it states that the requirement for gaps between the seat and head restraint is limited to adjustable head restraints. Although a definition of adjustable head restraint is not included in the standard, the agency addressed the meaning of the term in a March 29, 2009 letter of interpretation to Kongsberg. In that interpretation, we concluded that a folding head restraint that only has a single in-use position, regardless of movement to non-use positions, would not be considered an adjustable head restraint. Therefore, the types of head restraints that Kongsberg described in their petition would not have the option of using the procedure in paragraph S4.2.4.2 to determine the acceptability of the gap between the seat and the head restraint.

For the reasons explained below, we are revising FMVSS No. 202a in a way that will accommodate Kongsberg's concern, but not by defining the head restraints at issue as adjustable head restraints.

In analyzing the Kongsberg petition, we have considered the rationale provided in the May 2007 final rule for providing this gap measurement alternative. In a section of the preamble to the 2007 final rule discussing the gap between the head restraint and seat back we stated the following: [22]

> After considering the DaimlerChrysler and Alliance petitions, we have decided to specify that the gap requirement must be met when the gap is measured either by the existing current FMVSS No. 202a procedure using a sphere or one based on the ECE 17 measurement methodology. We are not aware of any data showing benefits to one methodology over the other.

The agency did not provide a specific explanation of why the option was limited to adjustable head restraints. We note that Appendix G of the DaimlerChrysler petition stated the following:

> S5.7 of ECE R17 requires a maximum gap of 60 mm for head restraints which are not adjustable, and a maximum gap of 25 mm for adjustable systems in the lowest position. The gap is measured similar to the height of the head restraint, perpendicular to the torso line as illustrated below.

Consequently, the limitation of S4.2.4 to adjustable head restraints was consistent with the petitioner's request. However, the specific types of design for which DaimlerChrysler mentioned in its request for the additional compliance option were "shingled" and "saddle" designs. Such designs used for rear seats could have a single in-use position of height adjustment. Thus, the 25 mm cylinder option currently would not be available to such a design.

Given Kongsberg's petition, we considered whether there is a good reason to exclude from this option head restraints that lock in a single in-use position. In analyzing this question, we looked at two similar theoretical rear seat head restraint designs. The first was a shingle head restraint that could move from a non-use position to a single in-use position. The second design could move from a non-use position to a lowest in-use position of adjustment, but also had several other in-use adjustment positions. However, in the lowest adjustment position, it occupied the same position in space as the first design that only had one in-use adjustment position. Thus, in the position of adjustment in which the gap measurement test would be performed, there would be no functional difference between the two designs. Given this, we believe that there is not a safety reason to exclude from this option head

[20] Kongsberg petition, 4.2.1.

[21] 72 FR 25484, 25484–5.

[22] 72 FR 25503.

restraints that lock in a single in-use position.

In light of the above, we have decided to revise the regulatory text so that the 25 mm cylinder option is available for all head restraints that can move with respect to the seat. This will make this option available for the types of designs described by Kongsberg. The revisions are in S4.2.4.2.

We note that we do not believe it would be appropriate to extend the 25 mm cylinder option to integral head restraints. In the 2004 final rule, the agency specified that the gap measurement was to be made 540 mm above the H-point "[b]ecause there may not be a clear distinction between the end of the seat back and the beginning of the head restraint in integral head restraints." [23] This fact would make it difficult to apply the 25 mm cylinder option to integral head restraints because it may not be possible to determine where the gap between the head restraint and seat back is. Therefore, there is reason to exclude integral head restraints from this option.

Finally, we note that the above analysis made no distinction between head restraints that move through some action of the occupant or active head restraints that might only move in a rear impact. The reason for this is that we do not believe there will be any ambiguity in finding the gap between the head restraint and seat back in these designs and thus using the 25 mm cylinder option.

E. Technical Amendments and Corrections

In addition to petitions for reconsideration and rulemaking, the agency also received a petition from the Alliance requesting that several minor technical corrections be made to the regulatory text of FMVSS No. 202a. Additionally, one part of Kongsberg's petition was not considered a petition for reconsideration, but the suggested change represented a technical correction. The issues raised by these petitions are addressed below. In addition, NHTSA identified an error in which regulatory text was inadvertently removed by the 2007 final rule.

1. NHTSA Agrees To Revise S5.2.4.2. The first change to the standard requested by the Alliance was in regard to paragraph S5.2.4.2. This section describes the "gap test," used to determine if the distance between the seat back and the head restraint is acceptably small. According to S4.2.4.2, the maximum gap permitted is 25 mm. Paragraph (c) of the procedure (S5.2.4.2(c)) reads "Determine if at least 125 mm of the [25 mm diameter] cylinder can completely pass through the gap." If testing shows that 125 mm or more of the cylinder can pass through the gap between the seat back and the head restraint, the head restraint would fail the test.

The Alliance petitioned that the language in paragraph (c) be changed from the current wording to read "Determine that no more than 125 mm of the cylinder can completely pass through the gap." It requested this language for purposes of clarification.

While we are not adopting the language suggested by the Alliance, we are adding a sentence to clarify that if 125 mm or more of the cylinder can pass through the gap, the head restraint would fail the test.

2. NHTSA Agrees To Revise S5.3.4. The Alliance's second requested change involves the reordering of two of the sentences in the dynamic performance test description in paragraph S5.3.4. Section S5.3.4 specifies the seat adjustment requirements for the dynamic compliance option.

The effect of moving the two sentences at issue from the beginning of the setup procedure to the suggested locations would be, according to the petition, to change the sequence of steps in which the laboratory sets up the seat for the dynamic test. Instead of setting the inclination of the seat back at the beginning of the process, the laboratory would make the final seat back adjustment after the vertical and fore-aft adjustments are set.

According to the Alliance, the purpose of the requested change is to reduce test-to-test variability of the dynamic test. It stated that setting the seat back adjustment at the beginning of the setup process can lead to some variability, and that it is general laboratory practice "to locate the seat cushion position first and make the final seat back adjustment after the vertical and fore-aft adjustments are set." [24] Reordering the regulatory text in that manner would facilitate testing, according to the petitioner.

After considering the Alliance's petition, we provide the following response. We did not intend in the 2007 final rule to specify a "sequence" of seat adjustment in S5.3.4. Our intent was to specify conditions to be met concurrently when the seat is in its final state of adjustment, in consideration of the various modes to achieve those conditions. We believe the specified adjustments can exist in harmony with each other. For example, S5.3.4 provides, through reference to S5, that the seat cushion and seat back must be adjusted such that the final H-point position is the highest H-point position with respect to the seat back.[25] However, this adjustment must be done in the context of achieving a final 25 degree seat back inclination. Achieving this H-point position with the correct seat back angle may involve an iterative process of adjusting various seat positioning controls. It would therefore not be correct to consider S5.3.4 as specifying a sequence of adjustments. Moreover, given the current language of the section and as indicated by the petitioner, there would not be a control on the final seat back angle.

To clarify this, we are adding a sentence to S5.3.4 stating that the specified seat adjustments are a list of conditions. We are also moving the two sentences as requested by the petitioner, but note that this will not affect the requirements of the standard. In light of the petitioner's misunderstanding about the issue of seat adjustment we are also adding a sentence to S5 to clarify that the seat adjustments made in S5 and S5.1 are also a set of conditions rather than a sequence. Again, we believe that adding clarification here will have no effect on the standard.

In S5.3.4, we are also removing a reference to S5.1 which is outdated.

3. NHTSA Agrees To Revise S5.2.6(d) and S5.2.7(a)(7). The third requested technical amendment relates to the testing of height retention (S5.2.6) and backset retention (S5.2.7(a)). In the 2007 final rule, NHTSA introduced a "zero load" condition into these tests. Essentially, this is a pause between when the largest amount of force is applied and the final test load is applied, to reduce hysteresis in the foam of the head restraint. In those sections, NHTSA specified that the zero load condition should be maintained for not more than two minutes.

The Alliance requested that instead of specifying "not more than two minutes," NHTSA specify that the zero load condition be maintained for "two minutes, +/−5 seconds." It stated that this change would provide more clarity for the test procedure. We agree with their argument. We believe it will clarify our original intent and reduce any potential variability. This change will be reflected in the regulatory text of the two paragraphs.

4. NHTSA Agrees To Revise S5.2.7(a)(5). The portion of the Kongsberg petition on the load vector

[23] 69 FR 74862.

[24] Alliance petition, Docket No. NHTSA–2007–27986–0013, p. 2.

[25] This provision effectively minimizes the measured seat height.

position in the backset retention test [26] is not related to any change made to the 2004 final rule by the 2007 final rule. Therefore, it is not a petition for reconsideration. However, NHTSA has determined that the requested clarification would constitute a technical amendment. Therefore, we are addressing it in this document.

Kongsberg requested that the agency clarify the test procedure in such a way that specifies that the load vector is applied through the centerline of the head form at a height 65 mm +/− 3 mm below the top of the head restraint.

NHTSA believes that the Kongsberg interpretation of the test procedure specified in S5.2.7 of FMVSS No. 202a is correct. In fact, this test is derived from paragraph S5.2 of the version of FMVSS No. 202 now in force, which allows for the use of a cylinder to apply the required force. When a cylinder is used to apply the force, because of the shape or angle of the head restraint, it may not make it possible to assure the point of contact is 65 mm below the top of the head restraint or to do so may result in a position of the axis of load application far from the 65 mm position. However, the axis of load application can be controlled. Although paragraph S5.2.7 of FMVSS No. 202 specifies a spherical head form loading device, the concept of aligning the axis of load application, represented by the centerline of the head form, remains the same (see Figure 1). Thus, we believe any clarification is simply a technical correction of the existing regulatory text. We are therefore revising S5.2.7(a)(5) to provide this clarification.

We note that the configuration in the illustration is for explanatory purposes only. Other configurations are acceptable if they conform to the text of the standard.

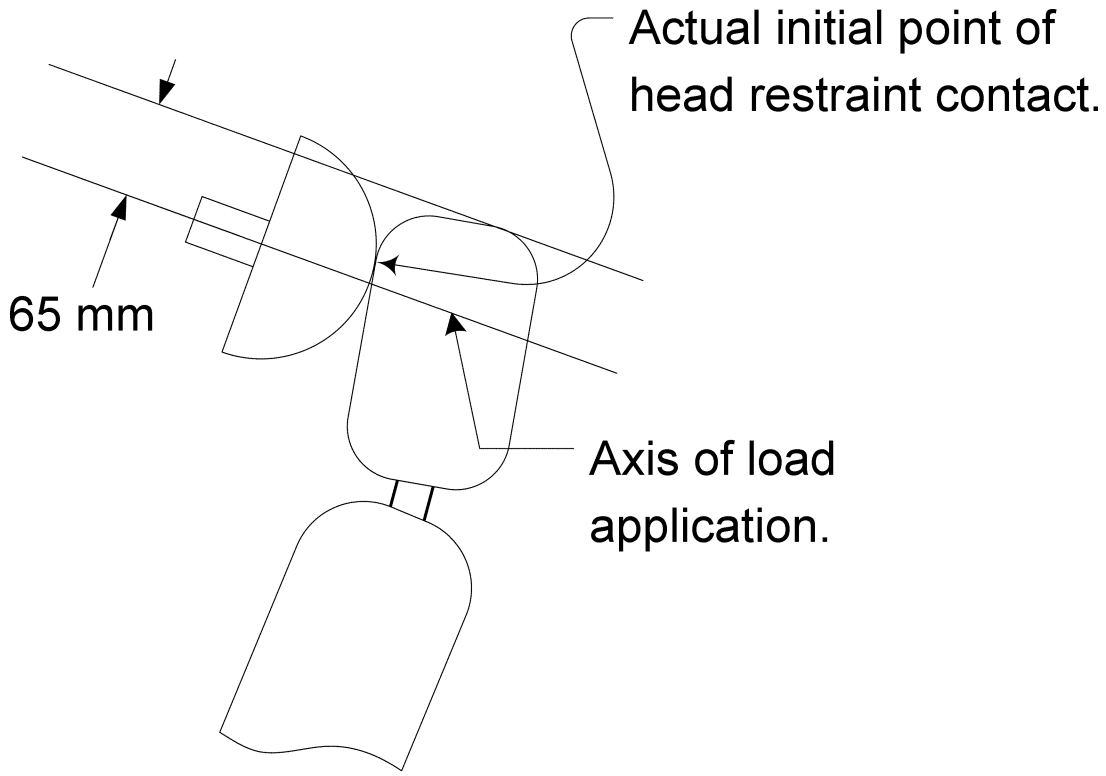

Figure 1

5. NHTSA Is Correcting Clerical Errors in S4.3 and S5.3. The 2004 final rule altered the head restraint position specification for the dynamic compliance option from any position of adjustment to a mid-height position and any position of backset adjustment.[27] This was indicated in both paragraphs S4.3 and S5.3. However, the 2007 final rule inadvertently removed the phrase "and at any position of backset adjustment" from the regulatory text in each of those sections. In this document, we are correcting that clerical error by modifying S4.3 and S5.3 to be consistent with the provisions for backset adjustment previously specified in the 2004 final rule.

IV. Agency Response to Petitions for Rulemaking

A. NHTSA Declines To Conduct Rulemaking Concerning Discomfort Metric or Relaxation Requirement for Gap Separate From the Rulemaking Based on the GTR

The Alliance and Mitsubishi Motors petitioned NHTSA to perform "expedited rulemaking" to permit an additional option for certifying compliance for a rear seat non-use position, something known as the "discomfort metric." The discomfort metric is, briefly, a measurement of the location of the head restraint with respect to the position of the occupant of the vehicle.

According to Mitsubishi, the discomfort metric, using certain values provided by the Japanese Automotive Manufacturers Association, is effective in prompting the seated occupants to adjust the head restraint from a non-use position to an in-use position.

[26] Kongsberg petition, part 5.0.

[27] 70 FR 74886 and 74888.

Mitsubishi also petitioned the agency to add a relaxation requirement for the gap within the head restraint. Mitsubishi stated that these provisions are both parts of the new GTR for head restraints.

NHTSA notes that the GTR on head restraints was adopted in March 2008. The GTR incorporates NHTSA's backset requirement, as well as offering a means to harmonize the remaining differences between the FMVSS and UNECE standards.[28] However, in order to modify the FMVSSs, NHTSA must propose to adopt the provisions in the GTR.

NHTSA is in the process of preparing an NPRM regarding the GTR provisions. However, we decline to conduct a separate rulemaking concerning a specific subset of the GTR provisions. There are a variety of interrelationships between the various requirements and related test procedures in any GTR, including the one on head restraints. The agency therefore believes it is important to consider the various provisions of a GTR together in a single rulemaking.

B. NHTSA Denies Petition for Rulemaking To Replace the Current Backset Requirement With an "Effective Backset" Requirement

Paragraph S5.2.3 of FMVSS No. 202a specifies a 55 mm backset limit. Backset is measured using a Head Restraint Measurement Device (HRMD), consisting of a specified head form attached to the Society of Automotive Engineers (SAE) J826 manikin (rev. Jul 95). The head form includes a probe that slides rearward until contact is made with the head restraint. The resulting measurement reflects the horizontal distance between the back of the head of a seated 50th percentile adult male dummy and the front of the head restraint.

Kongsberg requested (in part 2.5 of its petition) that this 55 mm limit be replaced with a 58.5 mm "effective backset" specification, which would be measured in a different way. Under the method recommended by the petitioner, a 10 N force would be applied as a preload. The 58.5 mm figure recommended by the petitioner is derived from adding the backset and a 3.5 mm displacement to represent the typical net effect of additional system flex when a 10 N preload is applied.

Kongsberg argued that a test method that only measures static backset is inferior to dynamic methods. It believes that its recommended method of measuring backset would improve the correlation between the static and dynamic measurements. According to Kongsberg, the preload application serves to improve this correlation by considering the effect of: (i) Very soft foam; (ii) the air gap between upholstery and foam; and (iii) the flex within the adjustment mechanism. As for the 10 N and 3.5 mm figures specifically, Kongsberg stated that the GTR was, at the time of Kongsberg's petition, reviewing the application of a 10 N preload to "prevent very soft head restraints" and reported a typical net effect of 3.5 mm additional system flex. We note that while the working group did review a presentation suggesting this approach, it was ultimately rejected in favor of the current procedure.

Kongsberg also argued that the agency recognized the benefit of using a pre-load in the gap measurement test procedure, and that this benefit should be extended to all tests that have the goal of measuring the position of foam and trim.

While we have considered the arguments raised by Kongsberg, we have decided to deny its petition in this area.

First, we believe that the petitioner has not demonstrated that its recommended approach would result in significant safety benefits or any other need for the approach. The agency's estimate of backset benefits is based on the current measurement method and, as such, takes into account physical factors associated with current head restraints that are related to system flex. To the extent the petitioner's recommendation would increase the backset limit by the amount that is the typical net effect of additional flex associated with a 10 N pre-load, it would not be expected to result in significant safety benefits. While the approach recommended by Kongsberg might be used to address possible concerns about very soft head restraints or ones that had excessive flex, the petitioner has not demonstrated that this possible problem is sufficiently large to warrant rulemaking. Moreover, the approach recommended by the petitioner could result in a less stringent requirement for some head restraints. The petitioner has not demonstrated a need for increased flexibility.

Also, there would be additional costs and complexity associated with the effective backset method. Unlike the current backset measurement method, the recommended effective backset method would require load measurement capability. The current HRMD backset probe does not have that capability, and adding such a capability is not necessarily a simple matter. Furthermore, this adjustment would require additional assessment of the procedure.

As to the gap measurement using a 165 mm sphere, both the 2004 and 2007 final rules specified that no more than a 5 N load is applied to the sphere when performing the measurements. This measurement relies on the ability to clearly delineate the points/lines of contact between the 165 mm sphere and the head restraint, and is thus a more complex measurement. In the laboratory, this is typically achieved through transfer paint applied to the head restraint. As a practical matter, the same device is used to perform this test as the backset retention test, and the ability to measure applied load is built into the apparatus.

We also note that the agency has explained and justified the current requirement in previous documents in this rulemaking, and previously addressed issues related to effective backset.

Given the lack of apparent safety benefits, lack of demonstrated need for a changed approach, and the additional testing and evaluation and other resources that would be needed for the agency to further consider rulemaking in this area, we deny this part of Kongsberg's petition.

C. NHTSA Denies Petition for Rulemaking To Adopt Effective Backset Requirements for Rear Head Restraints as Alternative to Backset Retention Requirement

Kongsberg petitioned the agency to adopt requirements for rear seat head restraint effective backset as an alternative to the backset retention requirement. It requested a 58.5 mm effective backset for rear seat head restraints with only one locking position, and an 80 mm effective backset for rear seat head restraints with multiple locking positions. Kongsberg did not expressly state what procedure should be used for the 80 mm effective backset, but the implication is that it would be through application of a load through the backset probe equivalent to 37 Nm.

FMVSS No. 202a does not specify backset requirements for rear seat head restraints, and those restraints themselves are not required. However, rear head restraints are subject to the backset *retention* requirements in S4.2.7. This is to ensure that the head restraint, if provided, is capable of providing the requisite strength to prevent whiplash.

Kongsberg indicated that it does not believe the agency has considered the effect of complex stowage and adjustment mechanisms in the rear seats

[28] *See* 73 FR 8743, February 14, 2008.

where there is not a backset requirement. It claimed that because of the amount of movement that can come from "comfort foam" compression, the current requirement is not a test of the head restraint lock. The petitioner stated that "[a]dvanced stowage mechanisms are penalized in a way that requires new head restraint solutions (with no comfort foam) even though the effective backset (sum of the measured backset and foam preload) is comparable to the NHTSA backset requirement for front row and is also below the value required of a front seat IIHS static good rating." It stated that if the advanced stowage systems have adjustments that allow multiple lock positions, "these solutions should have relief from the backset retention requirements if the 'effective' backset measurement, in all adjustment positions, is comparable to the strict backset requirements for front row."

We begin by noting that Kongsberg stated in its petition that it "proposes" that a more meaningful test for backset retention in rear seating applications would be "one that provides an alternative to certify with an effective backset * * *." Given this language, the petitioner appears to be requesting a manufacturer option in this area rather than that the agency necessarily establish a mandatory backset requirement for rear head restraints.

We note that the agency proposed to limit rear seat head restraint backset in the 2001 NPRM (66 FR 968), which also would have required that rear seat head restraints be provided. However, for the reasons explained in the 2004 final rule preamble, we decided not to require rear seat head restraints and eliminated the backset limit for optionally provided rear seat head restraints (69 FR 74857). Kongsberg did not address the reasons provided by the agency in that decision or provide an analysis demonstrating a need for a mandatory backset requirement for voluntarily-provided rear head restraints, and we are not revisiting that issue at this time.

After considering the arguments raised by Kongsberg, we have decided to deny its petition in this area. On the issue of relief from the backset retention requirement for rear head restraints, we do not believe such relief is in the interest of safety. Although there is no backset requirement for voluntarily-provided rear seat head restraints and the height requirement is less stringent, the agency believes that it is important for these head restraints to maintain their adjusted position just as it is for required front seat head restraints. NHTSA believes that when a vehicle occupant adjusts the backset of a head restraint to the proper position, it should maintain its adjusted position in the event of a collision. This is also consistent with our position that front seat head restraints must meet the backset retention test even in adjustment positions with less backset than 55 mm. While we have considered the arguments and data provided by Kongsberg, including data subject to a request for confidentiality, the petitioner has not demonstrated that there is a practicability problem with the backset retention test.

Neither has the petition demonstrated why the agency should apply one effective backset requirement to head restraints with a single locking position (58.5 mm at 10 N) and another effective backset requirement to head restraints with multiple locking positions (80 mm at 37 Nm).

We also note that the agency has explained and justified the current requirement in previous documents in this rulemaking, and previously addressed issues related to effective backset.

For the reasons discussed above, we deny Kongsberg's petition in this area.

V. Rulemaking Analyses and Notices

This rule makes several minor changes to the regulatory text of FMVSS No. 202a, and does not increase the regulatory burden on manufacturers. The agency has discussed the relevant requirements of the Vehicle Safety Act, Executive Order 12866, the Department of Transportation's regulatory policies and procedures, the Regulatory Flexibility Act, Executive Order 13132 (Federalism), Executive Order 12988 (Civil Justice Reform), Executive Order 13045 (Protection of Children from Environmental Health and Safety Risks), the Paperwork Reduction Act, the National Technology Transfer and Advancement Act, the Unfunded Mandates Reform Act, and the National Environmental Policy Act in the May 2007 final rule cited above. Those discussions are not affected by these changes.

Privacy Act

Please note that any one is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the document (or signing the document, 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://www.dot.gov/privacy.html.*

Revised Regulatory Text

List of Subjects in 49 CFR Part 571

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

■ In consideration of the foregoing, NHTSA is amending 49 CFR part 571 as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

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

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

■ 2. In § 571.202a, revise S4.2.4.2, S4.3, S5, S5.2.4.2(c), S5.2.6(d), S5.2.7(a) introductory text, S5.2.7(a)(5), S5.2.7(a)(7), S5.3, and S5.3.4 to read as follows:

§ 571.202a Standard No. 202a; Head restraints; Mandatory applicability begins on September 1, 2009.

* * * * *

S4.2.4.2 *Gaps between the head restraint and seat using a 25 mm cylinder.* The following option is only available to head restraints that can move with respect to the seat. When measured in accordance with S5.2.4.2 of this section using the 25 mm cylinder specified in that paragraph, there must not be any gap greater than 25 mm between the anterior surface of the head restraint and anterior surface of the seat, with the head restraint adjusted to its lowest height position and any backset position, except as allowed by S4.4.

* * * * *

S4.3 *Dynamic performance and width.* At each forward-facing outboard designated seating position equipped with a head restraint, the head restraint adjusted midway between the lowest and the highest position of adjustment, and at any position of backset adjustment, must conform to the following:

* * * * *

S5 *Procedures.* Demonstrate compliance with S4.2 through S4.4 of this section as follows. The positions of seat adjustment specified in S5 and S5.1 are conditions to be met concurrently and are not a sequential list of adjustments. Any adjustable lumbar support is adjusted to its most posterior nominal design position. If the seat cushion adjusts independently of the seat back, position the seat cushion such that the highest H-point position is achieved with respect to the seat back, as measured by SAE J826 (July 1995) manikin, with leg length specified in S10.4.2.1 of § 571.208 of this Part. If the

specified position of the H-point can be achieved with a range of seat cushion inclination angles, adjust the seat inclination such that the most forward part of the seat cushion is at its lowest position with respect to the most rearward part. All tests specified by this standard are conducted with the ambient temperature between 18 degrees C. and 28 degrees C.

* * * * *

S5.2.4.2 * * *

(c) Determine if at least 125 mm of the cylinder can completely pass through the gap. If 125 mm or more of the cylinder can completely pass through the gap, the gap is not in compliance.

S5.2.6 * * *

(d) Reduce the load at the rate of 250 ± 50 N/minute until the load is completely removed. Maintain this condition for two minutes ± 5 seconds.

* * * * *

S5.2.7 * * *

(a) *Backset retention and displacement.* For head restraints that move with respect to the seat when occupant loading is applied to the seat back, S5.2.7(a)(1) through (8) may be performed with the head restraint fixed in a position corresponding to the position when the seat is unoccupied. This fixation is applied to the member(s) that first transmit(s) the seat back loading from the occupant to the head restraint.

* * * * *

(5) Maintain the position of the back pan as established in S5.2.7(a)(4) of this section. Using a 165 ± 2 mm diameter spherical head form with a surface roughness of less than 1.6 μm, root mean square, establish the head form initial reference position by aligning the centerline of the head form perpendicular to the displaced torso reference line, on the seat centerline, and at a height 65 ± 3 mm below the top of the head restraint. Apply a posterior initial load that will produce a 37 ± 0.7 Nm moment about the H-point. After maintaining this moment for 5.5 ± 0.5 seconds, measure the posterior displacement of the head form during the application of the load.

* * * * *

(7) Reduce the load at the rate of 187 ± 37 Nm/minute until it is completely removed. Maintain this condition for two minutes ± 5 seconds.

* * * * *

S5.3 *Procedures for dynamic performance.* Demonstrate compliance with S4.3 of this section in accordance with S5.3.1 though S5.3.9 of this section with a 50th percentile male Hybrid III test dummy specified in 49 CFR part 572 subpart E, fitted with sensors to measure head to torso rotation. The dummy with all sensors is to continue to meet all specifications in 49 CFR part 572 subpart E. The restraint is positioned midway between the lowest and the highest position of adjustment, and at any position of backset.

* * * * *

S5.3.4 *Seat Adjustment.* The following seat adjustments specify conditions to be met concurrently and are not a sequential list of adjustments. At each outboard designated seating position, using any control that primarily moves the entire seat vertically, place the seat in the lowest position. Using any control that primarily moves the entire seat in the fore and aft directions, place the seat midway between the forwardmost and rearmost position. If an adjustment position does not exist midway between the forwardmost and rearmost positions, the closest adjustment position to the rear of the midpoint is used. Adjust the seat cushion and seat back as required by S5 of this section. If the seat back is adjustable, it is set at an inclination position closest to 25 degrees from the vertical, as measured by SAE J826 (July 1995) manikin. If there is more than one inclination position closest to 25 degrees from the vertical, set the seat back inclination to the position closest to and rearward of 25 degrees. If the head restraint is adjustable, adjust the top of the head restraint to a position midway between the lowest position of adjustment and the highest position of adjustment. If an adjustment position midway between the lowest and the highest position does not exist, adjust the head restraint to a position below and nearest to midway between the lowest position of adjustment and the highest position of adjustment.

* * * * *

Issued: October 28, 2010.

David L. Strickland,

Administrator.

[FR Doc. 2010–27669 Filed 11–1–10; 8:45 am]

BILLING CODE 4910–59–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 600 and 622

[Docket No. 0907201152–0420–02]

RIN 0648–AY05

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Regulatory Amendment to the Fishery Management Plan for the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands

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

ACTION: Final rule.

SUMMARY: NMFS issues this final rule that implements a regulatory amendment to the Fishery Management Plan for the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands (FMP) prepared by the Caribbean Fishery Management Council (Council). This rule modifies the Bajo de Sico seasonal closure from a 3-month closure to a 6-month closure, and prohibits fishing for and possession of Caribbean reef fish in or from the exclusive economic zone (EEZ) portion of Bajo de Sico during the closure. The final rule also prohibits anchoring in the EEZ portion of Bajo de Sico year-round. In addition to the measures contained in the regulatory amendment, this final rule also adds spear to the list of allowable gears in the commercial sector of the Caribbean reef fish fishery and revises the title of the FMP in the list of authorized fisheries and gear. The intended effect of this rule is to provide further protection for red hind spawning aggregations and large snappers and groupers, and better protect the essential fish habitat (EFH) where these species reside.

DATES: This rule is effective December 2, 2010.

ADDRESSES: Copies of the regulatory amendment, the Environmental Assessment, the regulatory flexibility analysis, and the regulatory impact review (RIR) may be obtained from Britni Tokotch, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701 or may be downloaded from the Southeast Regional Office Web site at *http://sero.nmfs.noaa.gov.*

FOR FURTHER INFORMATION CONTACT: Britni Tokotch, 727–824–5305.

SUPPLEMENTARY INFORMATION: The Caribbean reef fish fishery is managed