

safe ride news

publications

A Division of The Willapa Bay Company, Inc.

Deborah Davis Stewart, Editor & Publisher

Safe Ride News Publications

PO Box 38, Edmonds, WA 98020

425-640-5710 • 800-403-1424

Fax: 425-640-5417

Direct line: 206-465-5616

dstewart@saferidenews.com

www.saferidenews.com

January 24, 2011

National Highway Traffic Safety Administration
Docket Management Facility, M-30
US Department of Transportation
West Building, Ground Floor
Room W12-140
1200 New Jersey Ave SW
Washington, DC 20590

RE: Comments on Federal Motor Vehicle Safety Standards, Child Restraint Systems; Hybrid III 10-Year-Old Child Test Dummy Docket #NHTSA-2010-0158

We represent Safe Ride News Publications, publisher of materials that support the life-saving efforts of child passenger safety professionals, including *Safe Ride News*, the major child passenger safety technical periodical in the U.S. Safe Ride News Publications has been advocating for child passenger safety for over thirty years, and we consider NHTSA's efforts over that time period to develop a range of ATDs that represent children of varying sizes and development to be critically important. The current proposal regarding the Hybrid III 6- and 10-year-old ATDs takes another step forward in that effort, and we appreciate the opportunity to comment.

One key element of the addition of new dummies is how the proposal relates to the LATCH system. Safe Ride News recently released the 7th edition of our publication, *The LATCH Manual*, a resource that now consists of over 400 pages. The fact that this publication continues to be needed twelve years after its first edition makes a statement about the

difficulties that continue to hinder use of LATCH. LATCH has much potential and has indeed made some improvement to child safety, but its introductory years have been marred by many usage complexities, many of which can and should be eliminated.

Chief among these complexities is the issue of anchor weight limits for use of LATCH hardware. One important aspect of this subject is that there are currently multiple sources of advice regarding the weight limit of installation using LATCH for any given child/child restraint/vehicle scenario, and these sources are often contradictory and/or vague. We believe this problem poses a serious threat to children because the general public is usually unaware of correct use of LATCH anchors or completely perplexed by conflicting statements of vehicle and CR instructions, either of which can lead to potentially dangerous misuse. Our understanding of the issue leads us to conclude that the eventual resolution of this problem has to originate in improvements to FMVSS 213.

We feel that NHTSA's current SNPRM, and the original NPRM that preceded it, contain both positive and negative proposals concerning this resolution. Our comments regarding these proposals, therefore, focus on the aspects that will impact what we feel are important goals: A) LATCH anchor weight limit **simplicity** (in the form of one source of LATCH use limit information) and B) **clarity** (in the form of clear instructions and labeling).

A. Comments regarding how this proposal will impact LATCH simplicity – one source of anchor weight limits:

Because varying advice on anchor weight limits is at the core of the problem of confusing and contradictory LATCH anchor weight limits, it is essential to determine:

- 1) The one appropriate source of this advice,
- 2) The situation that is required for all stakeholders to truly rely on that one consistent source, and
- 3) The steps that are needed to achieve such a situation.

Though variability of anchor limits among vehicle manufacturers often inspires suggestions that these companies be pressed to reach a consensus, we feel that vehicle manufacturers should focus only on meeting the structural and strength requirements of FMVSS 225, and that it is actually the child restraint manufacturers that should determine

LATCH usage limits. FMVSS 225 already includes clear requirements to ascertain that all vehicle hardware can withstand a *minimum load threshold*. This threshold cannot be equated to any particular child weight, however, because there is no way for the vehicle manufacturer to anticipate the weight and design of every child restraint that a child may ride in, now or in the future – elements that combine with child weight to determine the load on the anchors in a crash. (And, indeed, in the decade since LATCH was introduced, the average weight of child restraint models has risen, as has maximum harness use weights.)

On the other hand, child restraint manufacturers *are* in a position to determine the maximum child weight that their specific child restraint models can withstand relative to the minimum structural strength required of all vehicle anchors. Sled testing relative to the known minimum vehicle anchor strength informs child restraint manufacturers as to the LATCH limits of their own products. **Therefore, we feel that it must be the child restraint manufacturer, and only the child restraint manufacturer, that determines the LATCH limit for each child restraint model, and we urge revisions to FMVSS 213 that require child restraint manufacturers to determine such limits for all models.**

Furthermore, though requiring child restraint manufacturers to identify a maximum LATCH use limit is one essential step, this alone will not do all that is needed to make vehicle manufacturers feel comfortable with leaving this advice solely to the child restraint manufacturer. In addition, these testing requirements must be rigorous enough to satisfy vehicle manufacturers. For this to be true, testing must adequately cover the recent proliferation of child restraint models that fit children to much higher weights than the 40 pounds that was the norm 10–15 years ago when the LATCH requirements were being developed. The final rule of this proposal will impact this situation in many ways:

- 1) **It is crucial that the final rule include the adoption of the Hybrid III-6C (for testing of child restraints for children weighing 50-65 pounds) and the Hybrid III 10-year old ATD (for child restraints used for children weighing over 65 pounds) into FMVSS 213's compliance testing, as proposed in January 2008's earlier SNPRM.** To the child restraint manufacturers' credit, all indications are that those with high-weight harness seats already voluntarily conduct extensive testing of those models well above what is required by FMVSS 213. Nonetheless, because FMVSS 213 has not *required* child restraints to be tested to these higher weights (and, therefore, no

performance parameters, accountability, or oversight exist), there are no guarantees that all will do so.

Relative to the point of simplifying advice regarding anchor weight limits, the fact that high-weight harness child restraints are not covered in the standard puts vehicle manufacturers in a position in which they are forced to make their own recommendations to fill this potential void. Most conclude that, in the absence of regulations, the risk is too great not to take a stance regarding specific child weight limits for LATCH use, even though their own testing doesn't (and, in fact, can't) accurately measure this. The result is that many companies identify a child weight that they feel to be sufficiently conservative (low) to protect their company from being implicated in an injury caused by LATCH failure. (And, in fact, they must envision the child restraint design that is *most* prone to fail in a crash, which further contributes to unnecessarily low anchor weight limits in many cases.)

- 2) The most recent SNPRM proposes to “suspend the HIC criterion for the HIII-10C dummy in all child restraints, including BPB seats, until the problems with the dummy that have resulted in unacceptable chin-to-chest contact in FMVSS testing have been resolved.” We have two comments on this. First, we are very concerned with the open-ended nature of the resolution of the acknowledged shortfalls of the ATDs. Compliance testing of high-weight harness child restraints with ATDs that cannot provide such a crucial piece of information as the likelihood of head injury is limited in its usefulness to a significant extent. **Therefore, we urge NHTSA to expedite the development of improvements to the ATD that would allow the measurement of meaningful HIC scores, and also to amend the proposal to include a firm deadline to reach that goal. Likewise, a deadline should be set for improvements to the Hybrid III 6-year-old so that alternate use of the Hybrid II can be phased out.**
- 3) Our second concern regarding the suspension of HIC criterion is that it is being proposed for all child restraints, and yet the supporting documentation in the SNPRM describes the problems with this measurement as it relates only to testing of BPBs. We understand the challenges of using the current dummy with BPBs, and accept the necessity of adopting the UMTRI positioning procedure for testing BPBs with the current version of the dummy. However, given the fact that this dummy should also be used to test many of the current child restraint models that have harnesses, we are concerned that this

scenario has not been addressed, and that perhaps this important injury risk indicator has been suspended unnecessarily with respect to high-weight harness seats. **We therefore ask that high-weight harness child restraints be specifically and separately considered with respect to the suspension of the HIC criterion.**

These observations regarding suspension of the HIC criterion stem from concerns for child safety as well as how this limitation might impact the perception of vehicle manufacturers of the value of any improvements to FMVSS 213 that result from this rulemaking. This would affect their willingness to rely on child restraint manufacturers to set anchor weight limits.

In summary, it is our opinion that when FMVSS 213 requires sufficient compliance testing of child restraints for all allowed harness weight limits, children will be safer. Though we have no doubt that manufacturers of child restraints already voluntarily test current models to weights beyond those required by the current standard, the fact that they are not required to do so is a safety risk. It is also essential to provide guarantees to vehicle manufacturers that the role of assessing LATCH weight limits can and will be determined solely by the child restraint manufacturer. Until NHTSA requires child restraint manufacturers to test child restraints to their highest weight limit using procedures and parameters that capture the full extent of potential child injury, CR users and child passenger safety technicians and educators will continue to struggle with the considerable complexity and confusion that currently surrounds LATCH anchor limits.

B. Comments regarding how this proposal may impact LATCH clarity – clear LATCH use limit instructions and labeling:

The natural accompaniment to our recommendation that child restraint manufacturers be required to determine the upper weight limit for LATCH use is for that advice to be clearly communicated to caregivers in the owner’s manual and on required labeling. We strongly urge that standardized wording be created, and that care be taken regarding this wording so that its intent is entirely clear and cannot be misconstrued. Our opinion is that the wording that is currently required by FMVSS 213 for child restraint labels regarding usage limits is extremely and unnecessarily confusing to caregivers and even CPSTs. That this wording should be revised is a topic to be discussed at another time, but it is cautionary to the creation of any additional labeling. Extreme care

should be taken, and **we recommend that reviewers of proposed wording include industry experts outside of NHTSA, manufacturers, and user focus groups.**

The SNPRM also includes a proposal to “require harness-equipped CRSs recommended for children of a weight range that includes children weighing over 65 pounds to be labeled with an instruction to the consumer not to use the vehicle LATCH system with a child weighing more than 65 pounds.” **We strongly discourage this proposal because we feel it does not do anything toward improving the clarity of instructions, and would in fact create more confusion.** For instance, consider the scenario of a high-weight harness seat that can be used to 80 pounds, but that the child restraint manufacturer has determined can be used with LATCH to a limit of 50 pounds. A label on the child restraint that warns against use of LATCH over 65 pounds (as proposed) is very likely to be misread by a caregiver and lead him or her to wrongly believe that the child restraint can be used with LATCH at all weights below 65 pounds. It is far better that standardized labeling simply indicate that use of LATCH should be suspended for that particular model after 50 pounds (and state clearly that the vehicle seat belts can still be used for installation above that weight).

Furthermore, though we recognize that most current child restraint models are not designed to meet FMVSS 213 criteria while installed with LATCH at child weights over 65 pounds, it seems to be an unnecessary and random restriction on the potential of LATCH use. Our suggestion to require labeling regarding upper weight limits for each model is a far better solution, and one that will both protect children and not inhibit innovation in child restraint design.

We would like to add a final comment regarding tether use. Though a LATCH system technically includes both lower anchors and tethers, it is important to recognize that LATCH often means only lower anchorage to caregivers, so any advice regarding LATCH needs to be clear as to how it pertains to both lower and tether anchorage. Furthermore, while lower anchors have a functional alternative in the form of seat belts, tethering does not usually have an alternative method. Since adding a tether to installation greatly increases the performance of a forward-facing child restraint, we urge NHTSA to always be mindful of extending the option of tether use whenever possible. Though we acknowledge that FMVSS 213 does, and must, be written under the assumption that tethers will be neglected to be used, **we encourage NHTSA to be careful in any rulemaking regarding testing and labeling to be certain that it does not**

inadvertently discourage or unnecessarily limit tether use.

Sincerely,

A handwritten signature in cursive script that reads "Deborah D. Stewart".

Deborah Davis Stewart
Editor/Publisher

Denise Donaldson
Editor