



April 5, 2021

Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Docket No. NHTSA-2020-0093 JPMA comments
Federal Motor Vehicle Safety Standards; Child Restraint Systems, Incorporation by Reference

Dear Administrator:

Thank you for the opportunity to comment on this proposal to introduce a new standard seat assembly and update other aspects of FMVSS No. 213. The Juvenile Products Manufacturer's Association ("JPMA") submits the following input to the 2020 NPRM entitled "Federal Motor Vehicle Safety Standards; Child Restraint Systems, Incorporation by Reference" (Docket No. NHTSA-2020-0093). We also appreciate your agreement to extend the comment period until April 5 for these comprehensive proposed changes.

The Juvenile Products Manufacturers Association (JPMA) is a national not-for-profit trade organization representing 95% of the juvenile products industry including the producers, importers, or distributors of a broad range of childcare articles that provide protection to infants and assistance to their caregivers. JPMA exists to advance the interests, growth and well-being of North American prenatal to preschool product manufacturers, importers and distributors marketing under their own brands to consumers. It does so through advocacy, public relations, information sharing, product performance certification and business development assistance conducted with appreciation for the needs of parents, children, our members and their retailer customers. JPMA continues to work with government officials, consumer groups, and industry leaders on programs to educate consumers on the safe selection and use of juvenile products.

As a membership organization that includes most child restraint manufacturers and some supporting businesses, JPMA submits these comments with the best interests of the most affected parties in mind.

Updating the Representative Seat Assembly

Since receipt of this NPRM, the associated test bench drawings and supporting information, JPMA facilitated discussion of the proposed test bench foam among expert staff from contract crash test labs and manufacturers with internal test labs. During those discussions, we agreed that foam

JUVENILE PRODUCTS MANUFACTURERS ASSOCIATION, INC.

1120 Route 73, Suite 200 • Mt. Laurel, NJ 08054
TEL: 856.638.0420 • FAX: 856.439.0525
jpma@jpma.org • www.jpma.org

pieces used during the development process may be unsuitable for the expected usage levels. Our initial concerns are the need for adhesives, the additional cost of skiving foam pieces, storage requirements including temperature and humidity levels, and the potential for lab technician error. In further discussions with representatives from the foam molding company that NHTSA used during development, we learned that options exist for custom-molded foam with an initial industry investment in new molds.

Following a brief exchange with NHTSA, stating that variation would be allowed as long as foam dimensions and density requirements are met, we ordered samples for testing including skived, skinned and vented varieties for testing. Multiple industry labs are assessing these samples for utility, durability, and repeatability and reproducibility of results. Due to a variety of delays in obtaining these samples, evaluative testing is anticipated to be completed beyond the current comment deadline; however, we intend to share the documented results with NHTSA under separate cover.

While the above testing has not yet been completed, we believe that additional NHTSA research is warranted. The allowed tolerances in foam thickness and densities are wide enough to produce inconsistent results separately, and even more so if the combination of thickness and density tolerances for these two factors is considered.

In addition, we believe that all consumables used in testing should be defined in the regulation and TP-213 as appropriate, including a clear description of the webbing that must be used for compliance testing. The description should include that the webbing used should be compliant with FMVSS 209, along with acceptable elongation ranges and any prior interpretations that still hold true. The Agency may be aware that the previously defined 5-panel webbing is no longer available with the desired elongation range, and that some manufacturers may not be fully aware that prior interpretations exist, or whether they apply in the proposed testing environment. Appropriate inclusion of these details will provide equal access to all manufacturers and test labs.

Denial of Petition Regarding a Floor

While we understand the stated rationale for denying the Volvo petition for a load leg floor, we feel that this concept deserves further consideration. At least six manufacturers currently produce models that have load leg features, and most are recent introductions that may not be accurately reflected in past observational data. Nevertheless, these features are most certainly being used in the field, the performance benefits are well-documented, consumer demand is increasing, and the number of models that include load legs is rapidly expanding. The industry is not asking NHTSA to define or compare CRS performance with load leg features engaged, but we do believe that a consistent, adjustable and optional floor helps ensure voluntary testing consistency in all test labs. JPMA intends to facilitate collaboration among industry labs and partners to define the characteristics of such a load leg floor for optional use by test labs. Specific information on how unused load legs should be adjusted or positioned during compliance testing will further aid in consistency efforts.

Proposed Changes to the Registration Program

JPMA agrees that providing more flexibility to manufacturers in how they communicate with consumers would likely help improve registration rates and recall completion rates. We also

believe that a statement assuring consumers information collected through the registration process will not be used by the manufacturer for any purpose other than contacting the consumer in the event of a recall may be beneficial. It is important that the revised registration card, system and wording remain compliant with CPSC requirements so dual registration is not necessary for impacted devices.

At this time, we do not know to what extent such flexibility will help increase registration rates, but as manufacturers gain experience with new versions, NHTSA may find benefit in requesting voluntary feedback from interested manufacturers on the respective consumer registration rates. Because currently used registration forms and processes are still allowable under the proposed rules, we suggest that early compliance with the proposed flexible options should be allowed beginning when the Final Rule is published.

Information on Labels and in Owners' Manuals

JPMA agrees that the proposed allowance for manufacturers to determine words and diagrams that most effectively instruct consumers on using their CRSs correctly can help improve the likelihood of proper use. Furthermore, we feel that such flexibility could better facilitate the production of certain child restraint models that are compliant with regulations in multiple countries, including Canada. Decreasing the need for separate labeling could also help reduce overall production costs and aid in keeping CRSs affordable and accessible. As NHTSA considers the implementation of such a change, we believe that some flexibility in mandatory timing of new labels is reasonable, allowing manufacturers to continue attaching currently compliant labels for a defined period so existing supplies can be exhausted and production processes are minimally interrupted by the changes.

We also agree that requiring instructional height and weight limits to be stated by CRS usage mode is a positive step toward aligning manufacturer instructions with accepted best practices, and that such a change allows for less confusion for consumers. Regarding a forward-facing minimum weight, we appreciate that 26.5 pounds includes most 1-year-old children and that such a change is likely to help achieve the goal of reducing forward-facing transition within the first year of life. Nevertheless, we also believe that it would be wise to choose a whole number. The resulting minimum weight is likely to be more understandable among and more remembered by consumers.

While the industry supports a minimum weight of 40 pounds for booster seat use, inclusion of the Sivinski study as part of rationale described in the NPRM is unnecessary and potentially problematic. Its conclusions regarding comparative field performance have limitations and may be flawed, as described by previous commenters. Forty pounds corresponds with the weight of a 97th percentile 3-year-old and an 85th percentile 4-year-old, and also aligns with proposed testing in lateral impacts. Most CRS manufacturers have voluntarily adopted 40 pounds as a minimum weight for booster seat use in recent years, based only on those facts, and we believe citation of the Sivinski study should be removed from consideration and the Agency rationale.

Streamlining NHTSA's Use of ATDs in Compliance Tests

In general, the industry appreciates the proposed simplification and streamlining of ATDs to better reflect real-world use of CRSs. At the same time, we must consider the need for consistent,

repeatable and reproducible testing, regardless of the test lab selected. Furthermore, we would like to have an option for early compliance, so CRS model designs can be optimized to comply with one set of test configurations, rather than two.

Based on performance differences identified in the NPRM, supporting research when comparing the current compliance bench with the proposed bench, and extensive evaluation testing conducted by multiple manufacturers using current BPB models, we believe that FMVSS No. 213 should allow manufacturers the option of specifying that NHTSA use either the H2-6C or the HIII-6C dummy to test their child restraints for compliance. A decision to allow ongoing use of the H2-6C is consistent with a public statement by the Agency in the SNPRM published November 24, 2010 (NHTSA-2010-0158; RIN 2127-AJ44):

While the HIII-6C is being used to an extent today, NHTSA believes it would be prudent to undertake efforts to improve the HIII-6C dummy to make it more useful as an FMVSS No. 213 test device before testing child restraints solely with this ATD. The Hybrid III 6-year-old dummy has a softer neck than the H2-6C, which results in slightly greater head excursion results and larger HIC values (chin-to-chest contact) than the H2-6C. This, coupled with the stiff thorax of the HIII-6C dummy, accentuates the HIC values recorded by the dummy. Several measures are underway to improve the Hybrid III dummy (see discussion later in this preamble). Until such time the HIII-6C is improved, we believe that FMVSS No. 213 should permit NHTSA to allow manufacturers the option of specifying that NHTSA use either the H2-6C or the HIII-6C dummy to test their child restraints.

The HIII-6C neck length and back construction continue to result in inconsistent chest acceleration and HIC results during evaluative testing, and individual manufacturers will include supporting data in their own comments to this docket. Test results demonstrate that additional NHTSA research is necessary to determine whether the effects of ATD shortfalls are truly mitigated when combined with the proposed bench. We also noted that the HIII-6YO in an untethered configuration of harnessed CRSs is not well-represented in the test results shared, and that the provided test results do not accurately represent performance with a reasonable sample of current models. Larger, taller convertibles or all-in-one models are also among the underrepresented devices in the provided results. We strongly urge NHTSA to perform additional testing to verify that currently produced CRSs are not challenged by the proposed elimination of the ATD. At a minimum, we believe that the timing of NHTSA discontinuing use of the H2-6C should not occur until the well-documented issues with the HIII-6C are resolved.

The comprehensive changes also warrant publication of an updated and detailed TP-213 that documents methodologies appropriate for all compliance and certification testing, including further details on ATD positioning and an associated public comment period. New test procedures should include: consistent CRS back angle measurement, specific positioning of back angle targets (including which side of the CRS), fully evaluated harness tightening procedures, CRS attachment for flexible and rigid systems, order of operations for tensioning auto belts, LA belts, tethers, booster seat belt tensioning and measurement location, the use of NHTSA-specified load cells to assess belt tension consistently by all labs, positioning of all ATDs in each applicable mode of use, additional devices used for ATD protection (such as the ATD headrest used during research testing), and all other procedures to ensure consistent, repeatable and reproducible results,

regardless of test lab. JPMA and its member manufacturers would appreciate the opportunity to begin evaluating the included procedures while they are in draft form.

We also urge NHTSA to allow the use of belt tensioning systems to install car seats for annual compliance testing. Many CRS belt tensioning systems amplify the user-applied force on the vehicle seat belt or lower connector strap which results in higher belt installation tensions than can be achieved for typical installations. The result for a consumer is a more secure CRS installation, while current installation procedures nullify the benefits of these tensioning features and grossly change the performance of the car seat due to belt tension and the installed CRS orientation. We believe that the basis for the force range was related to consumer-achievable, in-vehicle belt tension levels, which must be revised to reflect the propagation of belt tensioning technologies into CRS. Labs in Europe, for example, allow the use of the tensioning devices to install CRS with belt forces that exceed the prescribed installation force. Child restraint manufacturers are willing to take the lead to work with the testing labs to suggest a recommended method for utilizing tensioning devices for CRS installation.

Again, we encourage the Agency to incorporate past interpretations into the regulation itself or TP-213 as appropriate, to ensure consistent application of these interpretations. Some currently published procedures directly conflict with prior interpretations or their extensions, and others do not reflect or accommodate safety improvements and other differences present in new and innovative CRS models. We also believe that NHTSA should specify how injuries that result from contact between various parts of an ATD are evaluated, and should specify the time window in which injuries and other metrics are evaluated.

Child Passenger Safety Issues Arising from Research Findings

With regard to your question about improved alignment of height and weight recommendations, JPMA is aware of the cited UMTRI research, and we understand that there may be situations in which children may exceed stated height limits and stated weight limits of rear-facing only child restraints at different times. We are open to the concept of aligning interior child restraint dimensions with child stature, and we have seen similar concepts reflected in other regulations. If the Agency considers incorporating dimensional requirements and measurement procedures into FMVSS 213, we would appreciate the opportunity to comment on proposed requirements before they are finalized and implemented.

We enthusiastically support the efforts of NHTSA and Transport Canada to harmonize CRS regulations, and we believe that the end goal should be a single North American standard. Currently, the cost of developing and testing CRS to comply with both standards is substantial, largely duplicative and unnecessarily challenging. Since stringent regulations on either side of the border ensure the safety of qualified products, the resources required to meet both standards restrict equitable availability of some of the most innovative safety designs and features for protecting child occupants. Efforts should be made to ensure harmonization of test procedures, including positioning of the CRSs, ATDs in each mode of use, and features such as carrier handles.

In the NPRM, you asked for comments on the safety need to have a compression test in FMVSS No. 213. Given that such testing would be applied to all booster seats if incorporated, we believe that research, testing and field performance assessment must clearly demonstrate that such an

addition offers real-world injury-reduction benefit. Because the depth of the proposed bench is 45mm less than the current bench, and developing and testing rebound control features would be further complicated, we would similarly like to see clear injury-reduction benefit of rebound control metrics before such an addition is considered. Simply put, unless clear, evidenced based injury reduction value is demonstrated by potential testing additions, we do not believe such additions are warranted.

North American regulatory harmony is important and strongly desired, and harmony of TP-213 with its Canadian counterpart is also desired. Since this harmony will be preceded by additional research and evaluation of current differences in both the standards and procedures, including the above items, ATD positioning procedures and additional requirements, manufacturers would like to be actively involved in those processes.

Flammability Requirements

As FMVSS 213 requirements are updated, JPMA would like to take the opportunity to reiterate our concerns about current flammability requirements. To meet the same regulatory requirements as vehicle interior components, CRSs are either treated with flame retardant chemicals or made less affordable by using more costly materials that are naturally flame retardant. One state, Massachusetts, has already instituted a ban on certain chemicals, and the regulation does not exempt CRSs. Additional states are considering similar laws, and we are concerned that the resulting shift to higher priced CRSs could result in an increase in unrestrained or sub-optimally restrained children.

We appreciate continuing research by NHTSA on alternative testing and requirements, which will hopefully result in either elimination of the FMVSS 302 requirement or the development of a more appropriate requirement for juvenile products. As states take or consider legislative action, the need for these changes becomes more urgent. Current flammability requirements, combined with laws that restrict or requiring reporting of enumerated chemical presence, force regular manufacturer testing for these chemicals and potentially increase the cost of producing compliant CRSs.

Thank you again for the opportunity to provide input as you work toward upgrading FMVSS 213 and ensuring that it is representative of real-world child seat use in modern vehicles. Please let me know if JPMA and its members can provide additional input or otherwise participate in the process.

Sincerely,

A handwritten signature in dark ink, appearing to read 'JC', with a long horizontal flourish extending to the right.

Joseph M. Colella
Director of Child Passenger Safety, JPMA