

governing the agency's rulemaking activities. These factors are outlined in Section IV of this preamble.

The agency also issued an advance notice of proposed rulemaking (ANPRM) published concurrently with the NPRM, in which comments were sought on the agency's work on developing a possible side impact protection standard for child restraint systems. This advanced notice is discussed in Section V of today's preamble. The ANPRM announced that the agency had conducted extensive testing and analysis over the year proceeding the ANPRM to develop a possible side impact protection standard for children in child restraints but acknowledged that there are many unknowns. The agency sought comment on the suitability of the test procedures it was considering, on appropriate injury criteria for children in side impacts, on cost beneficial countermeasures, and on other issues. Additionally, after the ANPRM was published the agency evaluated possible mitigation concepts, such as adding padding material to the child restraint system. After reviewing the comments and the results of its post-ANPRM study, the agency has decided that the level and amount of effort needed to further develop and validate a side impact component for incorporation into FMVSS No. 213 far exceeds what could be accomplished within the time constraints of the TREAD Act. While an NPRM is not feasible at this time, NHTSA's research into improved side impact protection requirements for child restraints will continue as an ongoing agency program.

The updates to the seat assembly are based on studies that NHTSA contracted to have done in response to the TREAD Act. This final rule makes the following changes: the seat bottom cushion angle is increased from 8 degrees off horizontal to 15 degrees; the seat back cushion angle is increased from 15 degrees off the vertical to 20 ± 1 degrees; the spacing between the anchors of the lap belt is increased from 222 millimeters (mm) to 400 mm in the center seating position and from 356 mm to 472 mm in the outboard seating positions; and the seat back of the seat assembly is changed, from a flexible seat back to one that is fixed, to represent a typical rear seat in a passenger car.

The changes to the sled pulse are based on studies conducted in response to the TREAD Act. The test corridor is widened to make it easier for more test facilities to reproduce. The wider corridor extends the pulse from 80 milliseconds (ms) to approximately 90 ms in duration. The expanded corridor

does not reduce the stringency of the test, and makes it easier to conduct compliance tests at speeds closer to 30 mph.

This document enhances the use of test dummies in the evaluation of child restraints under Standard No. 213. NHTSA replaces most of the existing dummies with the new 12-month-old Child Restraint Air Bag Interaction (CRABI) dummy, and the state-of-the-art Hybrid III 3- and 6-year-old dummies. NHTSA also incorporates a weighted 6-year-old dummy (*i.e.*, a Hybrid III 6-year-old dummy to which weights have been added) to test the structural integrity of child restraints recommended for use by children weighing 50 to 65 lb. Incorporation of the weighted, 62 lb, dummy is viewed as an interim measure until such time as the Hybrid III 10-year-old dummy becomes available. Because the weighted dummy will be available for use in dynamic testing of child restraints for older children, this final rule extends the application of FMVSS No. 213 to child restraint systems for children who weigh 65 lb or less.

The agency has decided against adopting the scaled injury criteria developed in the context of the advanced air bag rulemaking of FMVSS No. 208. The agency was unable to confirm the existence of a safety problem that the scaled injury limits of FMVSS No. 208 would remedy. Relatedly, not enough is known about what modifications to child restraints could be made for the restraints to meet the proposed injury limits. In balancing the effects of meeting the scaled injury criteria against the possible impacts on the price of restraints, the agency determined that the scaled injury limits should not be added to FMVSS No. 213 at this time.

NHTSA has examined the benefits and costs of these amendments, wishing to adopt only those amendments that contribute to improved safety, and mindful of the principles for regulatory decisionmaking set forth in Executive Order 12866, Regulatory Planning and Review. Its efforts to do so, however, have been limited by several factors. One is the limited time allowed by the schedule specified in the TREAD Act for initiating and completing this rulemaking. That has limited the amount and variety of information that the agency could obtain and testing that the agency could conduct to examine the efficacy of possible countermeasures under consideration and the effects of the various proposed amendments on child restraint performance. The other is the lack of specific accident data on children in motor vehicle crashes

generally. For example, there is little available data on neck injury in children involved in motor vehicle crashes.

Together, these limitations have made it difficult to assess and compare the benefits and costs of this rulemaking.

The agency does not believe that updating the seat assembly and revising the crash pulse would affect dummy performance to an extent that benefits would accrue from such changes. The amendment of FMVSS No. 213 incorporating use of the new dummies in compliance tests, including testing with a weighted 6-year-old dummy, would result in a one-time cost of \$1.68 million for manufacturers to purchase the new test dummies and \$1.39 to \$3.44 million to certify existing child restraints to the new dummies and test requirements. The annual long-term costs are estimated to be \$31,200 to test new models of booster seats (including built-in restraints) with a weighted 6-year-old dummy. We believe that use of the new dummies, in itself, would not necessitate redesign of child restraints.

II. Background

Of the 31,910 passenger vehicle occupants killed in 2001, 1,003 were children ages 0 through 10 years old. Four hundred ninety-seven (497) of these were less than 5 years old. The failure to use occupant restraints is a significant factor in most fatalities resulting from motor vehicle crashes for both adults and children. Of the 31,910 passenger vehicle occupants killed in 2001, over half (55 percent) were unrestrained. Forty-six (46) percent of the 1,003 child occupant fatalities, ages 0 through 10 years old, were unrestrained. For child occupants less than 5 years old, 45 percent of the 497 fatalities were unrestrained.² In 2001, 202 child occupants under 5 years of age were killed while restrained in child restraints, and another 32,000 were injured.

NHTSA developed three strategies for reducing the number of children killed and injured in motor vehicle crashes in this country. (*See* Planning Document, 65 FR 70687; November 27, 2000; Docket NHTSA 7938.) The first of these was a strategy designed to increase restraint use among all children and to ensure that the appropriate restraint systems are used correctly. The agency

² Of the 2,787,000 passenger vehicle occupants injured in crashes in 2001, only 12 percent (324,000) were reported as unrestrained. The rates are about the same for child occupants. For children ages 0–10 years old, an estimated 147,000 were injured in motor vehicle traffic crashes in 2001, and 12 percent (18,000) of these children were unrestrained. Of the 59,000 child occupants less than 5 years of age who were injured, 11 percent (6,000) were unrestrained.