

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 52**

[PA188-4205b; FRL-7482-6]

**Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; VOC and NO<sub>x</sub> RACT Determinations for Two Individual Sources****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule.

**SUMMARY:** EPA proposes to approve the State Implementation Plan (SIP) revisions submitted by the Commonwealth of Pennsylvania to establish and require reasonably available control technology (RACT) for two major sources of volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) located in Pennsylvania. The two major sources are Dominion Trans Inc., and Textron Lycoming. In the Final Rules section of this *Federal Register*, EPA is approving the State's SIP submittal as a direct final rule without prior proposal because the Agency views this as a noncontroversial submittal and anticipates no adverse comments. A detailed rationale for the approval is set forth in the direct final rule. If no adverse comments are received in response to this action, no further activity is contemplated. If EPA receives adverse comments, the direct final rule will be withdrawn and all public comments received will be addressed in a subsequent final rule based on this proposed rule. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time.

**DATES:** Comments must be received in writing by June 6, 2003.

**ADDRESSES:** Written comments should be addressed to Makeba Morris, Acting Branch Chief, Air Quality Planning and Information Services Branch, Mailcode 3AP21, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103; and Pennsylvania Department of Environmental Resources Bureau of Air Quality Control, PO Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

**FOR FURTHER INFORMATION CONTACT:** Rose Quinto (215) 814-2182, or by e-mail at [quinto.rose@epa.gov](mailto:quinto.rose@epa.gov).

**SUPPLEMENTARY INFORMATION:** For further information, please see the information provided in the direct final action, Pennsylvania's Approval of VOC and NO<sub>x</sub> RACT Determinations for Two Individual Sources, that is located in the "Rules and Regulations" section of this *Federal Register* publication. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment.

Dated: April 4, 2003.

**Donald S. Welsh,***Regional Administrator, Region III.*

[FR Doc. 03-11182 Filed 5-6-03; 8:45 am]

**BILLING CODE 6560-50-P****FEDERAL COMMUNICATIONS COMMISSION****47 CFR Part 73**

[DA 03-1156; MM Docket No. 02-301, RM-10578]

**Radio Broadcasting Services; Broken Bow, OK****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule; dismissal.

**SUMMARY:** In response to a *Notice of Proposed Rule Making*, 67 FR 64598 (October 21, 2002), this *Report and Order* dismisses the Petition for Rule Making in MM Docket No. 02-301 proposing to allot Channel 232A to Broken Bow, Oklahoma. The petitioner had requested this dismissal.

**FOR FURTHER INFORMATION CONTACT:** R. Barthen Gorman, Media Bureau, (202) 418-2180.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Report and Order, MM Docket No. 02-301, adopted April 15, 2003, and released April 17, 2003. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Information Center at Portals II, 445 12th Street, SW., Room CY-A257, Washington, DC, 20554. The document may also be purchased from the Commission's duplicating contractor, Qualex International, Portals II, 445 12th Street, SW., Room CY-B402, Washington, DC, 20554, telephone 202

863-2893, facsimile (202) 863-2898, or via e-mail [qualexint@aol.com](mailto:qualexint@aol.com).

Federal Communications Commission.

**John A. Karousos,***Assistant Chief, Audio Division, Media Bureau.*

[FR Doc. 03-11225 Filed 5-6-03; 8:45 am]

**BILLING CODE 6712-01-P****DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration****49 CFR Part 572**

[Docket No. NHTSA-03-15089]

**RIN 2127-A158****Anthropomorphic Test Devices; Hybrid III 6-Year-Old Weighted Child Test Dummy**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes to amend 49 CFR part 572 by adding a weighted version of the current Hybrid III six-year-old child size dummy (H-III6C). The weighted dummy would weigh 62 pounds, ten pounds more than the H-III6C dummy. The drawings and specifications for the weighted dummy would be the same as those for the H-III6C dummy, except for added masses at the thoracic spine and at the base of the lumbar spine. The agency issued an NPRM in May 2002 proposing to use the weighted dummy in the agency's compliance tests of child restraint systems recommended for use by larger children, *i.e.*, children from 50 to 65 pounds. Today's document proposes specifications and calibration procedures for the weighted test dummy described in that NPRM.

**DATES:** Comments must be received by July 7, 2003.

**ADDRESSES:** Comments should refer to the docket number above and be submitted to Docket Management, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590. Docket hours are from 10 a.m. to 5 p.m. See Supplementary Information section for electronic access and filing addresses.

**FOR FURTHER INFORMATION CONTACT:** For technical and policy issues, Stan Backaitis, NHTSA Office of Crashworthiness Standards, at 202-366-4912.

For legal issues, Deirdre R. Fujita, NHTSA Office of the Chief Counsel, at 202-366-2992.

Both officials can be reached by mail at the National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590.

#### SUPPLEMENTARY INFORMATION:

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#### I. Background

##### A. The Hybrid III 6-Year-Old Test Dummy

On January 13, 2000, NHTSA issued a final rule establishing specifications and test procedures for a new, more advanced six-year-old child test dummy (H-III6C).<sup>1</sup> The agency determined that a new six-year-old dummy was needed to evaluate the risks of air bag deployment for children, particularly for unrestrained children. The agency adopted the H-III6C dummy because it had a more humanlike impact response than the six-year-old dummies that existed at that time, and because it allowed the assessment of the potential for more types of injuries. The agency also concluded that the H-III6C dummy would provide greater and more useful information in a variety of automotive impact environments to better evaluate child safety.

##### B. The Need for a Heavier Child Dummy

Research has shown that children, even those older than six years, do not fit properly in adult vehicle seats, and that adult belt restraint systems cannot be properly applied over the load bearing structural parts of children's torsos.<sup>2</sup> Moreover, both the National Transportation Safety Board (NTSB)<sup>3</sup> and the "Blue Ribbon Panel II: Protecting Our Older Child

Passengers"<sup>4</sup> have recommended that older children be restrained in child safety seats, booster seats, or safety belts appropriate for their size and weight. Both recommended also that a universally acceptable crash test dummy approximating a ten-year-old child should be developed. In addition, child restraint manufacturers, while attempting to develop specialized child restraint systems and booster seats for larger children, have found themselves hampered in this effort by not having an appropriately sized dummy.

In March 2000, NHTSA responded to these needs by asking the Society of Automotive Engineers (SAE) to take the lead in developing a Hybrid III ten-year-old child size dummy. This effort received a further boost from Congress on November 1, 2000, when the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act was enacted.<sup>5</sup> Section 14 of the TREAD Act directs NHTSA to consider whether to require the use of anthropomorphic test devices that "represent a greater range of sizes of children, including the need to require the use of an anthropomorphic test device that is representative of a ten-year-old child \* \* \*." Further, on December 4, 2002, Congress enacted Pub. L. 107-318 (Dec. 4, 2002; 116 Stat. 2772) ("Anton's Law"). Section 4 of Pub. L. 107-318 directs that—

(a) Not later than 24 months after the date of the enactment of this Act, the Secretary shall develop and evaluate an anthropomorphic test device that simulates a 10-year-old child for use in testing child restraints used in passenger motor vehicles.

(b) Within 1 year following the development and evaluation carried out under subsection (a), the Secretary shall initiate a rulemaking proceeding for the adoption of an anthropomorphic test device as developed under subsection (a).

Responding to NHTSA's call, the SAE designed and developed a Hybrid III ten-year-old child size dummy weighing approximately 76 pounds. In accordance with the agency's rulemaking and research plans and in furtherance of Section 4 of Pub. L. 107-318, NHTSA is evaluating the dummy for incorporation into Part 572. However, the evaluation will take time, as necessary design modifications are

usually necessary for a dummy to be suitable for incorporation into 49 CFR part 572. In the meantime, child restraint system manufacturers will still need a dummy approximating children in the seven to eight year old age bracket, *i.e.*, children above 50 pounds. To meet this need, the agency is considering a weighted version of the current H-III6C dummy, one that weighs approximately 62 pounds instead of the 52-pound weight of the H-III6C dummy.

##### C. NPRM on Standard No. 213

The agency issued an NPRM in May 2002 proposing a number of changes to Standard No. 213 in response to Section 14 of the TREAD Act, including a proposal to use the weighted dummy in the agency's compliance tests of child restraint systems recommended for use by larger children, *i.e.*, children from 50 to 65 pounds. (67 FR 21806; May 1, 2002; Docket No. 02-11707.) The use of the dummy was viewed as an interim measure until such time that the Hybrid III ten-year-old dummy becomes available. The agency proposed that the dummy would be used in Standard No. 213's dynamic testing to measure the forces that are sustained by the dummy's head, neck, and chest when restrained by the child restraint in a simulated crash. Standard No. 213 would require the child restraint to limit the forces to specified levels. In addition, it was proposed that the dummy would be used to assess the restraint's ability to maintain structural integrity in a crash when the dummy is restrained in it, and to limit excursion of the dummy's head, torso and knees.

Today's document proposes to incorporate into Part 572 the weighted six-year-old dummy that was described in the May 2002 NPRM. That dummy has extensive instrumentation to measure the potential for injuries to the head, the upper and lower ends of the neck, and the chest, as well as other areas of the dummy. Comments were requested and received by the agency on the suitability of the weighted, instrumented dummy for use in Standard No. 213 compliance tests of booster seats and other child restraints recommended for use by children weighing over 50 lb.

Some commenters on the May 2002 NPRM expressed concerns or questions about using the dummy's injury assessment capabilities in Standard No. 213 compliance tests. Some commenters suggested that the weighted dummy does not adequately represent a child in the seven- to eight-year-old age bracket, and that the dummy should thus not be used in the compliance tests because it

<sup>1</sup> 65 FR 2059.

<sup>2</sup> Kathleen DeSantis Klinich, *et al.*, "Study of Older Child Restraint/Booster Seat Fit and NASS Injury Analysis," Technical Report, DOT HS 80 248, NHTSA/VRTC, November 1994.

<sup>3</sup> NTSB, Safety Recommendation H-96-25, Study on Advanced Air Bags, Safety Belts and Child Restraint Issues, September 1996. A copy of this document has been placed in the docket.

<sup>4</sup> Recommendations of the Blue Ribbon Panel II: Protecting Our Older Child Passengers, March 15, 1999. The panel was announced by Transportation Secretary Rodney Slater and Ricardo Martinez, M.D., NHTSA Administrator, on November 19, 1998, with a mission of recommending ways to increase the use of age- and size-appropriate occupant restraints by children ages four through fifteen whenever they are riding in a motor vehicle. These recommendations can be found at [http://www.actsinc.org/whatsnew\\_6.cfm](http://www.actsinc.org/whatsnew_6.cfm).

<sup>5</sup> Public Law 106-414, 114 Stat. 1800.

would add little, if anything, to child passenger safety. Some suggested that the agency should focus on developing the Hybrid III ten-year-old dummy instead. Others suggested that the weighted six-year-old dummy be used only to assess the structural integrity of child restraints, and not to assess the crash forces imposed in the dynamic test.

The agency is considering all the comments on the May 2002 NPRM and will respond to them in the follow-on document to the NPRM. Today's NPRM proposes specifications for the weighted dummy simply to complement the May 2002 NPRM, *i.e.*, this document completes the dummy specifications called for in the May NPRM. By issuing this document, the agency does not intend to imply that it has concluded that the instrumented dummy will be fully used in Standard No. 213 compliance tests, with all its measurement capabilities. A final rule on the use of the weighted dummy in Standard No. 213 compliance tests, assuming the agency adopts such a provision in a final rule, will address all issues concerning the full or limited use of the dummy. Further, a final rule adopting the dummy into Part 572 will likely parallel NHTSA's final rule concerning use of the dummy in Standard No. 213.

## II. Alternatives Considered

### A. Objectives for the Weighted Dummy

The agency defined the following objectives for the weighted six-year-old child size dummy:

1. Develop a method for increasing the weight of the current H-III6C dummy from 52 pounds to over 60 pounds.
2. The system used to add weight to the H-III6C dummy must not interfere with the restraint system being used, and must not distort the kinematics and impact response of the dummy.
3. The weighted dummy must have sufficient durability in the intended impact exposures.
4. The weighted dummy must have repeatability and reproducibility in calibration and sled tests comparable to that of the H-III6C dummy.
5. The weighted dummy must be backed up with sufficient design and performance data to support its incorporation into 49 CFR part 572.
6. The weighted dummy must be useful in assessing the structural integrity of child restraints in dynamic testing.

### B. Weighting Concepts

The agency evaluated several weighting concepts for developing a weighted H-III6C dummy. Initially, the agency placed a weighted vest on the dummy. However, upon inspecting this system, the agency determined that use of such a vest would be unacceptable in compliance testing. Since the weights are not rigidly attached to the dummy, they could rattle or even slap during dynamic tests, possibly interfering with the dummy's instrumentation responses. In addition, the vest, loaded with weighting materials, was somewhat bulky. The agency was concerned that this bulkiness could affect the positioning of the dummy and compromise the effectiveness of the tested restraint system.

NHTSA then considered mounting ballasts directly on the dummy's interior structure. The agency designed carbon steel masses (about 9 pounds) that could be rigidly mounted on the dummy's spine and pelvis. However, this resulted in the elevation of the upper torso by 1 inch. The agency determined that a more uniform distribution of the added weight between the upper and lower torso halves, and less elevation of the upper torso with respect to the lower torso, were necessary.

The agency discovered that a more uniform mass distribution, and a lowering of the upper torso, could be achieved through the use of a dense Tungsten alloy material. The increased density of the Tungsten alloy allowed each of the weights to be reduced in size as compared to the carbon steel weights. The dummy's seated height was increased by only 0.7 inch, while the carbon steel weights increased the dummy's seated height by 1 inch. The agency also was able to design the Tungsten alloy weights to distribute the added weight more uniformly between the upper and lower torso halves. The Tungsten alloy material allowed the agency to increase the added weight of the bottom of the lumbar spine (hereinafter referred to as "pelvis") from 3.8 pounds to 4.9 pounds while maintaining the thoracic spine weight increase at 5.2 pounds.<sup>6</sup>

The agency's preliminary testing and evaluation of the dummy with the Tungsten alloy weights attached to the thoracic spine and pelvis has indicated responses comparable to the responses of the H-III6C dummy. Therefore, the agency has tentatively concluded that attaching Tungsten alloy weights to the

<sup>6</sup> The spine weights consist of two 2.6-pound plates, one on each lateral side of the thoracic spine.

H-III6C dummy's thoracic spine and pelvis met the agency's objectives for a weighted six-year-old child size dummy outlined above.

### C. Evaluation of the Weighted Dummy

The agency subjected the weighted dummy to two types of impact evaluations in the laboratory environment: component calibration tests and sled tests.

Component calibration tests were conducted to compare the performance of the weighted dummy with that of the H-III6C dummy. The agency followed the calibration test procedures specified for the H-III6C dummy in 49 CFR part 572 subpart N. Since masses were added to the dummy's upper and lower torso, the agency limited its evaluation of the weighted dummy for certification responses to the thorax impact (specified in 49 CFR 572.124) and torso flexion (49 CFR 572.125) tests. Since the added weights would not influence the head drop, neck flexion and extension, and knee impact calibration tests, the agency did not conduct these tests with the weighted dummy.

The agency conducted ten high acceleration (HYGE) sled tests with both the H-III6C and the weighted dummies in seating configurations with adult restraint systems and belt positioning booster seats. All tests were performed using the Standard No. 213 pulse (24 G, 30 mph) and sled mounted seating buck. The dummies were seated in Century Breverra Metro and Graco Cherished Cargo booster seats and restrained with a 1999 Pontiac Grand Am rear seat lap/shoulder belts for all tests. One set of tests with the Century Breverra Metro booster seats was performed without belt retractors.

#### 1. Calibration Tests

To evaluate the dummy's repeatability, structural integrity, and durability, the agency performed seven thorax impacts with the weighted dummy. The first four thorax calibration tests were conducted prior to a series of six Standard No. 213 sled tests. Three additional tests were conducted after the sled tests. The test results are detailed in NHTSA's Technical Report entitled "Evaluation of the Weighted Hybrid III Six-Year-Old Child Dummy" (October, 2001, Docket No. NHTSA-2002-11707-2). The results indicate the following responses.

The chest deflection responses of the weighted dummy met the calibration limits for the H-III6C dummy in all tests. However, the average chest deflection for the weighted dummy was approximately 41 mm, which is 1 mm below the target deflection of 42 mm

specified for the H-III6C dummy. Since these results were based upon only one dummy, the agency has tentatively concluded that it should retain the 38–46 mm chest deflection specification.

The peak pendulum force responses in the weighted dummy’s thoracic deflection range of 38–46 mm met the specifications for the H-III6C dummy in all tests. However, the average response was close to the upper limit of the specified corridor. Accordingly, the data suggest that, to assure better centering of the response specification, the H-III6C dummy corridor be changed from 1150–1380 N to 1225–1455 N for the weighted dummy.

The H-III6C specifications also require that the peak pendulum force during the thoracic deflection range of 12.5–38 mm not exceed by more than 5 percent the value of the peak force during the deflection range of 38–46 mm. The weighted dummy did not consistently meet this specification during NHTSA’s testing. Accordingly, the data suggest that the H-III6C dummy limit be changed from 5 percent to 10 percent for the weighted dummy.

The internal hysteresis responses of the weighted dummy met the specifications for the H-III6C dummy in all tests. Accordingly, the data suggest that the H-III6C dummy specification for internal hysteresis of 65–85 percent be retained for the weighted dummy.

2. Torso Flexion Tests

The agency performed six torso flexion tests with the weighted dummy, two tests prior to and four following a series of six Standard No. 213 sled tests. The test results are detailed in the October 2001 Technical Report noted above. The results indicate that the durability and structural integrity of the

weighted dummy were not compromised by the added weight during the test series. However, the test data indicate that the weighted dummy did not meet the established flexion force corridors for the H-III6C dummy. The agency’s torso flexion test responses with the weighted dummy also indicate the following.

The initial average torso setup angle for the weighted dummy in the absence of external support was 31.2 degrees. This is higher than the maximum value of 22 degrees specified for the H-III6C dummy. The additional mass located on the spine box of the weighted dummy is responsible for the increase in the initial torso setup angle. Accordingly, the data suggest that the following specification be added for the weighted dummy torso flexion test:

Remove the external support and wait two minutes. Measure the initial orientation of the Torso reference plane of the seated dummy as shown in Figure S2. This initial torso orientation angle may not exceed 32 degrees.

The agency also notes that the initial torso angle exhibited very good repeatability, with a coefficient of variation (CV) of 4.1 percent.

The weighted dummy torso in 45-degree flexion tests yielded an average resistance force of 103 N (23.2 lbf) with a standard deviation of 4 N (0.9 lbf). This is significantly lower than the resistance force of 173.5 ± 26.5 N (39 ± 6 lbf) specified for the H-III6C dummy. Accordingly, the data suggest that the H-III6C dummy resistance force specification be changed from 173.5 ± 26.5 N (39 ± 6 lbf) to 105 ± 20 N (23 ± 4.5 lbf) for the weighted dummy.<sup>7</sup> The agency also notes that the weighted dummy exhibited very good repeatability of resistance force in the

flexion tests, yielding a CV of 3.8 percent.

The H-III6C dummy specifications require the torso to return within 8 degrees of the initial torso position upon removal of the flexion force. The weighted dummy met this specification in all tests. Accordingly, the data suggest that this specification be retained for the weighted dummy.

3. Sled Tests

The agency conducted HYGE sled tests using the Standard No. 213 pulse (24 G, 30 mph). The sled buck was equipped with a Standard No. 213 bench seat. The H-III6C and weighted dummies were seated side by side in Century Breverra Metro booster seats and restrained with 1999 Pontiac Grand Am rear seat lap/shoulder belts for all the sled tests. No shoulder belt routing clips or top tethers were used with any of the booster seats. To determine possible variability that may occur with shoulder belt retractors, the agency performed three tests with each dummy in the Century Breverra Metro restraint system both with and without the shoulder belt retractors.

The response data of the H-III6C and weighted dummies are summarized in the table below. The CV for most of the measurements listed indicates relatively comparable responses for the two dummies. Differences, such as higher chest deflection and higher belt loading for the weighted dummy, can be explained by the weighted dummy’s increased mass. The shapes of the response curves, found in the October 2001 Technical Report, reflect reasonably comparable tracking of the loading responses vs. time for the same dummy seating and restraint configuration.

H-III6C AND WEIGHTED DUMMIES’ RESPONSES IN BOOSTER SEATS

	Century Breverra Metro without shoulder belt retractor		Century Breverra Metro with shoulder belt retractor	
	H-III6C dummy	Weighted dummy	H-III6C dummy	Weighted dummy
HIC 15:				
Average .....	241	177	303	261
Percent CV .....	5.2	9.5	4.9	4.6
HIC Unlimited:				
Average .....	657	554	733	695
Percent CV .....	7.6	4.5	4.4	7.3
Nij:				
Average .....	1.01	0.83	0.93	0.93
Percent CV .....	10.9	8.6	7.5	5.9
Neck Peak Tension (N):				
Average .....	2,455	1,858	2,281	2,276
Percent CV .....	22.4	13.0	7.9	15.9

<sup>7</sup> Since NHTSA had to base this proposed performance range specification on data from only a single dummy, the agency used 5 standard

deviations to calculate the upper and lower limits. The agency believes that this range is comparable to that for the H-III6C and will be sufficient to

accommodate the flexion responses from other dummy tests in the future.

## H-III6C AND WEIGHTED DUMMIES' RESPONSES IN BOOSTER SEATS—Continued

	Century Breverra Metro without shoulder belt retractor		Century Breverra Metro with shoulder belt retractor	
	H-III6C dummy	Weighted dummy	H-III6C dummy	Weighted dummy
Chest Deflection (mm):				
Average .....	29.8	38.0	29.0	36.6
Percent CV .....	5.4	7.9	10.5	5.0
Chest Acceleration (g):				
Average .....	45.93	48.58	50.15	49.23
Percent CV .....	10.9	6.9	1.1	7.7
Shoulder Belt Load (N):				
Average .....	4,486	5,498	4,632	5,770
Percent CV .....	10.8	7.2	2.3	4.3
Head Excursion (mm):				
Average .....	494	483	523	492
Percent CV .....	5.1	3.1	0.7	2.3
Knee Excursion (mm):				
Average .....	630	652	641	670
Percent CV .....	2.4	0.8	1.0	3.0

Both the Head Injury Criteria (HIC) 15 and HIC unlimited average values were lower for the weighted dummy than for the H-III6C dummy. The weighted dummy measured average HIC 15 values of 177 and 261 for tests without and with a shoulder belt retractor, respectively, while the H-III6C dummy measured average values of 241 and 303. The weighted dummy measured average HIC unlimited values of 554 and 695 for tests without and with a shoulder belt retractor, respectively, while the H-III6C dummy measured average values of 657 and 733. It is to be noted that both dummies recorded higher HIC averages when a shoulder belt retractor was used. The agency believes this is due to the sudden jerking loads imposed on the dummies when the retractor locks.

Neck tension and neck injury criteria (Nij) averages also were lower for the weighted dummy than for the H-III6C dummy in tests with and without shoulder belt retractors. Without a shoulder belt retractor, the weighted dummy measured an average Nij value of 0.83 and a peak neck tension of 1858 N (418 lbf), while the H-III6C dummy measured an average Nij value of 1.01 and a peak neck tension of 2455 N (552 lbf). With a shoulder belt retractor, both the weighted dummy and the H-III6C dummy measured an average Nij value of 0.93, and their peak neck tension values were similar as well: 2276 N (512 lbf) for the weighted dummy and 2281 N (513 lbf) for the H-III6C dummy. Based on these responses, the agency has tentatively concluded that the weighted dummy will produce either very similar or somewhat lower neck response values than those of the H-III6C dummy.

The weighted dummy also measured a greater average chest deflection than the H-III6C dummy in tests without and with a shoulder belt retractor. In tests without a retractor, the weighted dummy average chest deflection was 8.2 mm greater than the H-III6C dummy average (38.0 mm compared to 29.8 mm). In tests with a retractor, the weighted dummy average chest deflection was 7.6 mm greater than the H-III6C dummy average (36.6 mm compared to 29.0 mm).

The weighted dummy recorded higher shoulder belt loads than the H-III6C dummy. The weighted dummy measured average shoulder belt loads of 5498 N and 5770 N in tests without and with a retractor, respectively, while the H-III6C dummy measured average loads of 4486 N and 4632 N. The agency believes that the weighted dummy's higher average chest deflection and shoulder belt loads can be attributed to greater torso mass.

The weighted dummy average chest acceleration was slightly greater than the H-III6C dummy average in tests without a retractor (48.58 g compared to 45.93 g). However, in tests with a retractor, the H-III6C dummy average chest acceleration was slightly greater than the weighted dummy average (50.15 g compared to 49.23 g).

The weighted dummy average forward head excursion value was 11 mm lower than the H-III6C dummy average value (483 mm compared to 494 mm) in tests without a retractor. In tests with a retractor, the weighted dummy average head excursion value was 31 mm less than the H-III6C dummy average value (492 mm compared to 523 mm).

Conversely, the weighted dummy average knee excursion value was 22

mm greater than the H-III6C dummy average value in tests without a retractor (652 mm compared to 630 mm). In tests with a retractor, the weighted dummy average knee excursion value was 29 mm greater than the H-III6C dummy average value (670 mm compared to 641 mm).

The head kinematics during the sled tests were similar for both dummies. The chins of both dummies exhibited contact into the chests in all tests. Furthermore, both dummies tended to shift into the "pike" position (legs and torso pitching forward) during the rebound response. However, this leg flexion did not seem to have a significant bearing on the dummies' performance.

#### 4. Overall Assessment

NHTSA's evaluation of the two dummies has led the agency to the following tentative conclusions.

The weighted dummy response to thorax impacts and torso flexion tests was slightly different from that of the H-III6C dummy. Accordingly, the agency has tentatively concluded that to better fit the weighted dummy's response within the calibration corridors, the response boundaries for thorax impact and torso flexion would need to be slightly adjusted. However, the agency believes that the performance corridors for the head drop, neck flexion and extension, and knee impact tests would require no alteration.

The weighted dummy response to thorax impacts and torso flexion tests were similar before and after a series of six sled tests using the Standard No. 213 pulse. These tests indicate that the consistency of the dummy's impact

response was not affected by the impact exposures during the sled tests.

The agency noted no structural integrity, durability, or noise and vibration issues during component and sled testing of the proposed weighted dummy.

In identical test environments, both the weighted dummy and the H-III6C dummy produced relatively comparable responses when the effects of the weighted dummy's increased mass in the upper and lower torso were taken into account.

Average HIC and neck tension values were lower for the weighted dummy than for the H-III6C dummy, while average chest deflection and shoulder belt loads were greater for the weighted dummy than for the H-III6C dummy.

HIC values were greater for both dummies when a shoulder belt retractor was used. Shoulder belt load averages and chest accelerations also increased slightly when a retractor was used.

The two dummies exhibited similar kinematics during sled testing. Chin-to-chest contact was observed in all tests with both dummies. No contact between the head and knees was detected in any of the tests. The dummies appeared to interface the structure of the child restraints in a similar manner.

### III. Agency Proposal

Based on the results of the test and evaluation program discussed above, the agency has tentatively concluded that the weighted dummy is sufficient for evaluating the dynamic performance of child restraint systems designed for children over 50 pounds. If Standard No. 213 is amended to apply to child restraints for children over 50 lb as proposed in the May 2002 NPRM, the weighted dummy should be able to serve the interim needs of the agency until the Hybrid III ten-year-old size dummy is ready for incorporation. Accordingly, the agency is proposing to incorporate the weighted six-year-old size dummy into 49 CFR part 572 as subpart S.

The drawings and specifications for the weighted dummy would be the same as the drawings and specifications for the H-III6C dummy in 49 CFR part 572 subpart N, except for the following differences.

First, the drawings for the weighted dummy's upper torso assembly and lower torso assembly would be changed to include the spine box weighting plates and pelvis weighting spacer.

Second, in the thorax assembly and test procedure specifications (49 CFR 572.124(b)(1)); the peak force specification within the specified compression corridor would be changed

from 1150–1380 N (259–310 lbf) to 1225–1455 N (275–327 lbf); and the peak force specification after 12.5 mm (0.5 in) of sternum displacement would be changed from not more than 5 percent of the value of the peak force measured within the required displacement limit to not more than 10 percent of that value.

Third, in the upper and lower torso assemblies specifications (49 CFR 572.125(b)(1)), the specification for the force applied as shown in Figure S2 would be changed from 147–200 N (33–45 lbf) to 85–125 N (18.5–27.5 lbf).

Fourth, in the upper and lower torso assemblies test procedure specifications (49 CFR 572.125(c)(5)), the initial torso orientation angle specification would be changed from 22 degrees to 32 degrees.

A copy of the Procedures for Assembly, Disassembly, and Inspection (September 2002) for the dummy, and copies of the Parts List and Drawings for the H-III6CW, Alpha Version (September 13, 2002) can be found in the docket for this NPRM.

### IV. Costs

The agency estimates that the base cost of the new weighted six-year-old child size dummy would be \$31,170. The cost of an uninstrumented H-III6C dummy is approximately \$30,000.<sup>8</sup> The cost difference of \$1,170 is as follows: raw tungsten alloy materials for the weights is approximately \$270 for the lumbar spacer weight and \$240 for each of the two spine weights. The fabrication of the parts requires approximately 12 hours of machinist labor at a cost of \$35 per hour, for a total of \$420. Instrumentation would add approximately \$25,000 to \$41,000 to the cost of the dummy, depending on the amount of data desired.

### V. Benefits

At this time, the agency has not quantified any benefits to the public from this rulemaking. The availability of a weighted six-year-old child size dummy would provide a more suitable, repeatable, and objective test tool to the automotive safety community for development of improved safety environments for older children in motor vehicle crashes than the unweighted dummy. It also would facilitate the future certification of booster seats and child restraint systems designed for children up to approximately 65 pounds.

<sup>8</sup> See the H-III6C dummy final rule at 65 FR 2064 (January 13, 2000).

### VI. Lead Time

The agency believes that lead time is not a major factor for upweighting the H-III6C. The addition of the dummy to Part 572 will not affect manufacturers' compliance obligations with respect to the Federal motor vehicle safety standards.

### VII. Rulemaking Analyses and Notices

#### A. Executive Order 12866 and DOT Regulatory Policies and Procedures

Executive Order 12866, "Regulatory Planning and Review" (58 FR 51735, October 4, 1993), provides for making determinations whether a regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and to the requirements of the Executive Order. The Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

NHTSA has considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's (DOT) regulatory policies and procedures (44 FR 11034, February 26, 1979). The Office of Management and Budget did not review this rulemaking document under Executive Order 12866. This rulemaking action has been determined not to be significant under the DOT's Regulatory Policies and Procedures.

This document proposes to amend 49 CFR part 572 by adding design and performance specifications for a weighted six-year-old child dummy that the agency may use in the Federal motor vehicle safety standards. If this proposed rule becomes final, it would affect only those businesses that choose to manufacture or test with the dummy. It would not impose any requirements on anyone.

The cost of an uninstrumented H-III6C dummy is approximately \$30,000.<sup>9</sup> The cost of the raw tungsten alloy materials for the weights is \$270 for the lumbar spacer weight and \$240 for each spine weight. The fabrication of the parts requires approximately 12 hours of machinist labor at a cost of \$35 per hour. Accordingly, the agency estimates that the cost of an H-III6CW dummy is \$31,170. Instrumentation would add approximately \$25,000 to \$41,000 to the cost of the dummy, depending on the amount of instrumentation.

Because the economic impacts of this proposal are so minimal, no further regulatory evaluation is necessary.

#### *B. Regulatory Flexibility Act*

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996) whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.*, small businesses, small organizations, and small governmental jurisdictions). The Small Business Administration's regulations at 13 CFR part 121 define a small business, in part, as a business entity "which operates primarily within the United States." (13 CFR 121.105(a)). No regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

NHTSA has considered the effects of this rulemaking under the Regulatory Flexibility Act. I hereby certify that the proposed amendment would not have a significant economic impact on a substantial number of small entities. The proposed amendment would not impose or rescind any requirements on anyone. Therefore, it would not have a significant economic impact on a substantial number of small entities.

#### *C. National Environmental Policy Act*

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

#### *D. Executive Order 13132 (Federalism)*

Executive Order 13132 requires NHTSA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Executive Order 13132, the agency may not issue a regulation with Federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, the agency consults with State and local governments, or the agency consults with State and local officials early in the process of developing the proposed regulation. NHTSA also may not issue a regulation with Federalism implications and that preempts State law unless the agency consults with State and local officials early in the process of developing the proposed regulation.

NHTSA has analyzed this proposed amendment in accordance with the principles and criteria set forth in Executive Order 13132. The agency has determined that this rule does not have sufficient federalism implications to warrant consultation and the preparation of a Federalism Assessment.

#### *E. Civil Justice Reform*

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

#### *F. Paperwork Reduction Act*

Under the Paperwork Reduction Act of 1995, a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid control number from the Office of Management and Budget (OMB). This proposed rule would not have any requirements that are considered to be information collection requirements as defined by the OMB in 5 CFR part 1320.

#### *G. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104-113, section 12(d) (15 U.S.C. 272) directs NHTSA to use voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies, such as the Society of Automotive Engineers (SAE). The NTTAA directs NHTSA to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards.

The H-III6C dummy, which is the dummy upon which the weighted dummy is based, was developed under the auspices of the SAE. All relevant SAE standards were reviewed as part of the development process. The following voluntary consensus standards have been used in developing the H-III6C dummy and the weighted dummy proposed in today's document: SAE Recommended Practice J211-1995 Instrumentation for Impact Tests—Parts 1 and 2, dated March, 1995; and SAE J1733 Information Report, titled "Sign Convention for Vehicle Crash Testing", dated December 1994.

#### *H. Unfunded Mandates Reform Act*

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, Federal requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted for inflation with base year of 1995). Before promulgating a NHTSA rule for which a written statement is needed, section

<sup>9</sup> See the H-III6C dummy final rule at 65 FR 2064 (January 13, 2000).

205 of the UMRA generally requires the agency to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule.

This proposed rule would not impose any unfunded mandates under the UMRA. This proposed rule would not meet the definition of a Federal mandate because it would not impose requirements on anyone. It would amend 49 CFR part 572 by adding design and performance specifications for a weighted six-year-old child dummy that the agency may later use in the Federal motor vehicle safety standards. If this proposed rule becomes final, it would affect only those businesses that choose to manufacture or test with the dummy. It would not result in costs of \$100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector. Thus, this proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA.

#### *I. Plain Language*

Executive Order 12866 requires each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

- Has the agency organized the material to suit the public's needs?
- Are the requirements in the rule clearly stated?
- Does the rule contain technical language or jargon that is not clear?
- Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
- Would more (but shorter) sections be better?
- Could the agency improve clarity by adding tables, lists, or diagrams?
- What else could the agency do to make this rulemaking easier to understand?

If you have any responses to these questions, please include them in your comments on this NPRM.

#### *J. Regulation Identifier Number*

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

#### *Comments*

##### How Do I Prepare and Submit Comments?

Your comments must be written and in English. To ensure that your comments are correctly filed in the Docket, please include the docket number of this document in your comments.

Your comments must not be more than 15 pages long. (49 CFR 553.21). NHTSA established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments. There is no limit on the length of the attachments.

Please submit two copies of your comments, including the attachments, to Docket Management at the address given above under **ADDRESSES**.

You may also submit your comments to the docket electronically by logging onto the Dockets Management System Web site at <http://dms.dot.gov>. Click on "Help & Information" or "Help/Info" to obtain instructions for filing the document electronically.

##### How Can I Be Sure That My Comments Were Received?

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail.

##### How Do I Submit Confidential Business Information?

If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the Chief Counsel, NHTSA, at the address given above under **FOR FURTHER INFORMATION CONTACT**. In addition, you should submit two copies, from which you have deleted the claimed confidential business information, to Docket Management at the address given above under **ADDRESSES**. When you send a comment containing information claimed to be confidential business information, you should include a cover letter setting forth the information specified in our confidential business information regulation. (49 CFR part 512.)

##### Will the Agency Consider Late Comments?

NHTSA will consider all comments that Docket Management receives before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, the agency will also consider comments that Docket Management receives after that date. If Docket Management receives a comment too late for the agency to consider it in developing a final rule (assuming that one is issued), the agency will consider that comment as an informal suggestion for future rulemaking action.

##### How Can I Read the Comments Submitted by Other People?

You may read the comments received by Docket Management at the address given above under **ADDRESSES**. The hours of the Docket are indicated above in the same location.

You may also see the comments on the Internet. To read the comments on the Internet, take the following steps:

1. Go to the Docket Management System (DMS) Web page of the Department of Transportation (<http://dms.dot.gov/>).
2. On that page, click on "search."
3. On the next page (<http://dms.dot.gov/search/>), type in the four-digit docket number shown at the beginning of this document. Example: If the docket number were "NHTSA-1998-1234," you would type "1234." After typing the docket number, click on "search."
4. On the next page, which contains docket summary information for the docket you selected, click on the desired comments. You may download the comments. Although the comments are imaged documents, instead of word processing documents, the "pdf" versions of the documents are word searchable.

Please note that even after the comment closing date, NHTSA will continue to file relevant information in the Docket as it becomes available. Further, some people may submit late comments. Accordingly, the agency recommends that you periodically check the Docket for new material.

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78) or you may visit <http://dms.dot.gov>.

**List of Subjects in 49 CFR Part 572**

Motor vehicle safety, Incorporation by reference.

In consideration of the foregoing, NHTSA is proposing to amend 49 CFR part 572 as follows:

**PART 572—ANTHROPOMORPHIC TEST DUMMIES**

1. The authority citation for part 572 would continue to read as follows:

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

2. 49 CFR part 572 would be amended by adding a new subpart S, consisting of §§ 572.160–572.167, to read as follows:

**Subpart S—Hybrid III Six-Year-Old Weighted Child Test Dummy**

Sec.

- 572.160 Incorporation by reference.
- 572.161 General description.
- 572.162 Head assembly and test procedure.
- 572.163 Neck assembly and test procedure.
- 572.164 Thorax assembly and test procedure.
- 572.165 Upper and lower torso assemblies and torso flexion test procedure.
- 572.166 Knees and knee impact test procedure.
- 572.167 Performance test conditions.

**Subpart S—Hybrid III Six-Year-Old Weighted Child Test Dummy****§ 572.160 Incorporation by reference.**

(a) The following materials are hereby incorporated into this subpart by reference:

(1) A drawings and specifications package entitled “Drawings and Specifications for the Hybrid III Six-Year-Old Weighted Child Test Dummy (H-III6CW) [a date will be inserted in the final rule]”, consisting of:

- (i) Drawing No. 127–1000, Head Assembly;
- (ii) Drawing No. 127–1015, Neck Assembly;
- (iii) Drawing No. 167–2000, Upper Torso Assembly;
- (iv) Drawing No. 167–3000, Lower Torso Assembly;
- (v) Drawing No. 127–4000, Leg Assembly;
- (vi) Drawing No. 127–5000, Arm Assembly; and
- (vii) The Hybrid III Six-Year-Old Weighted Child Parts List.

(2) A procedures manual entitled “Procedures for Assembly, Disassembly, and Inspection (PADI) of the Hybrid III Six-Year-Old Weighted Child Test Dummy [a date will be inserted in the final rule]”;

(3) SAE Recommended Practice J211–1995, titled “Instrumentation for Impact

Tests—Parts 1 and 2”, dated March, 1995;

(4) SAE J1733 Information Report, titled “Sign Convention for Vehicle Crash Testing”, dated December 1994.

(b) The Director of the Federal Register approved those materials incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the materials may be inspected at NHTSA’s Technical Reference Library, 400 Seventh Street, SW., room 5109, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

(c) The incorporated materials are available as follows:

(1) The Drawings and Specifications for the Hybrid III Six-Year-Old Weighted Child Test Dummy referred to in paragraph (a)(1) of this section are available in electronic format through the NHTSA docket center and in paper format from Leet-Melbrook, Division of New RT, 18810 Woodfield Road, Gaithersburg, MD 20879, (301) 670–0090.

(2) The SAE materials referred to in paragraphs (a)(3) and (a)(4) of this section are available from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

**§ 572.161 General description.**

(a) The Hybrid III Six-Year-Old Weighted Child Test Dummy is defined by drawings and specifications containing the following materials:

(1) Technical drawings and specifications package (drawing 167–0000), the titles of which are listed in Table A;

(2) Procedures for Assembly, Disassembly, and Inspection (PADI) of the Hybrid III Six-Year-Old Weighted Child Test Dummy [a date will be inserted in the final rule].

TABLE A

Component assembly	Drawing No.
Head assembly .....	127–1000
Neck assembly .....	127–1015
Upper torso assembly .....	167–2000
Lower torso assembly .....	167–3000
Leg assembly .....	127–4000
Arm assembly .....	127–5000

(b) Adjacent segments are joined in a manner such that except for contacts existing under static conditions, there is no contact between metallic elements throughout the range of motion or under simulated crash impact conditions.

(c) The structural properties of the dummy are such that the dummy must

conform to this subpart in every respect before use in any test similar to those specified in Standard 208, “Occupant Crash Protection” (49 CFR 571.208), and Standard 213, “Child Restraint Systems” (49 CFR 571.213).

**§ 572.162 Head assembly and test procedure.**

The head assembly is assembled and tested as specified in 49 CFR 572.122.

**§ 572.163 Neck assembly and test procedure.**

The neck assembly is assembled and tested as specified in 49 CFR 572.123.

**§ 572.164 Thorax assembly and test procedure.**

(a) *Thorax (upper torso) assembly.* The thorax consists of the part of the torso assembly shown in drawing 167–2000.

(b) When the anterior surface of the thorax of a completely assembled dummy (drawing 167–2000) that is seated as shown in Figure S1 is impacted by a test probe conforming to 49 CFR 572.127(a) at  $6.71 \pm 0.12$  m/s ( $22.0 \pm 0.4$  ft/s) according to the test procedure specified in 49 CFR 572.124(c):

(1) The maximum sternum displacement relative to the spine, measured with chest deflection transducer (drawing 127–8050), must be not less than 38.0 mm (1.50 in) and not more than 46.0 mm (1.80 in). Within this specified compression corridor, the peak force, measured by the probe in accordance with 49 CFR 572.127, must be not less than 1225 N (275 lbf) and not more than 1455 N (327 lbf). The peak force after 12.5 mm (0.5 in) of sternum displacement, but before reaching the minimum required 38.0 mm (1.46 in) sternum displacement limit, must not exceed by more than 10 percent the value of the peak force measured within the required displacement limit.

(2) The internal hysteresis of the ribcage in each impact as determined by the plot of force vs. deflection in paragraph (b)(1) of this section must be not less than 65 percent but not more than 85 percent.

(c) *Test procedure.* The thorax assembly is tested as specified in 49 CFR 572.124(c).

**§ 572.165 Upper and lower torso assemblies and torso flexion test procedure.**

(a) *Upper/lower torso assembly.* The test objective is to determine the stiffness effects of the lumbar spine (drawing 127–3002), including cable (drawing 127–8095), mounting plate insert (drawing 127–910420–048), nylon shoulder busing (drawing 9001373), nut

(drawing 90013360), spine box weighting plates (drawings 167-2010-1 and -2), lumbar base weight (drawing 167-3010), and abdominal insert (drawing 127-8210), on resistance to articulation between the upper torso assembly (drawing 167-2000) and the lower torso assembly (drawing 167-3000).

(b)(1) When the upper torso assembly of a seated dummy is subjected to a force continuously applied at the head to neck pivot pin level through a rigidly attached adaptor bracket as shown in Figure S2 according to the test procedure set out in 49 CFR 572.125(c),

the lumbar spine-abdomen assembly must flex by an amount that permits the upper torso assembly to translate in angular motion until the machined surface of the instrument cavity at the back of the thoracic spine box is at  $45 \pm 0.5$  degrees relative to the transverse plane, at which time the force applied as shown in Figure S2 must be not less than 85 N (18.5 lbf) and not more than 125 N (27.5 lbs), and

(2) Upon removal of the force, the torso assembly must return to within 8 degrees of its initial position.

(c) *Test procedure.* The upper and lower torso assemblies are tested as

specified in 49 CFR 572.125(c), except that in paragraph (5) of that section, the initial torso orientation angle may not exceed 32 degrees.

**§ 572.166 Knees and knee impact test procedure.**

The knee assembly is assembled and tested as specified in 49 CFR 572.126.

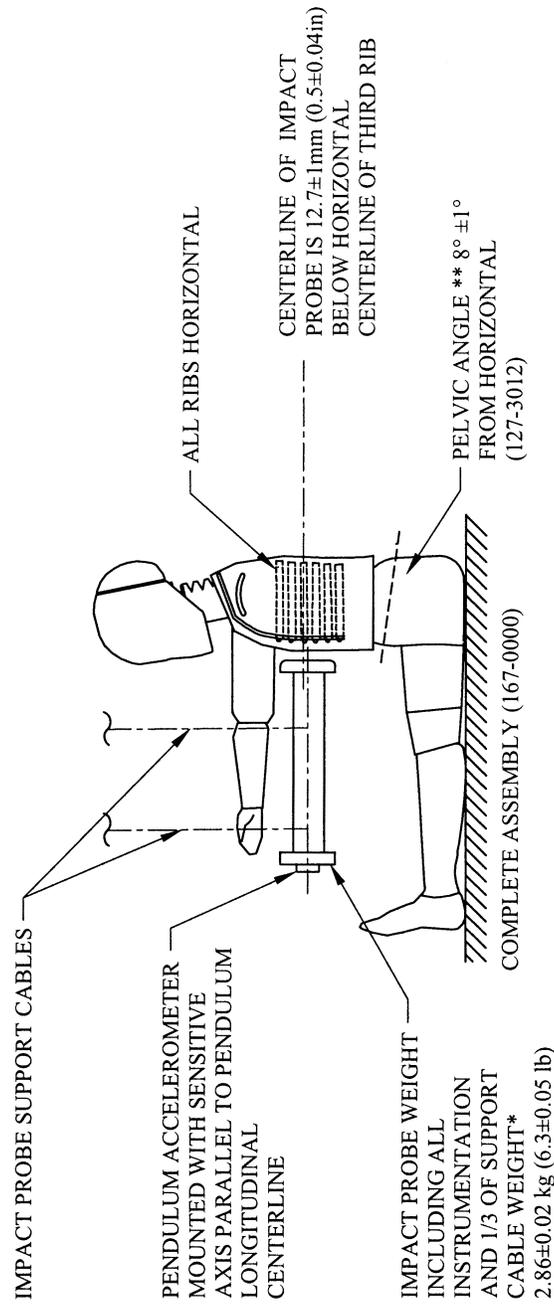
**§ 572.167 Test conditions and instrumentation.**

The test conditions and instrumentation are as specified in 49 CFR 572.127.

\* \* \* \* \*

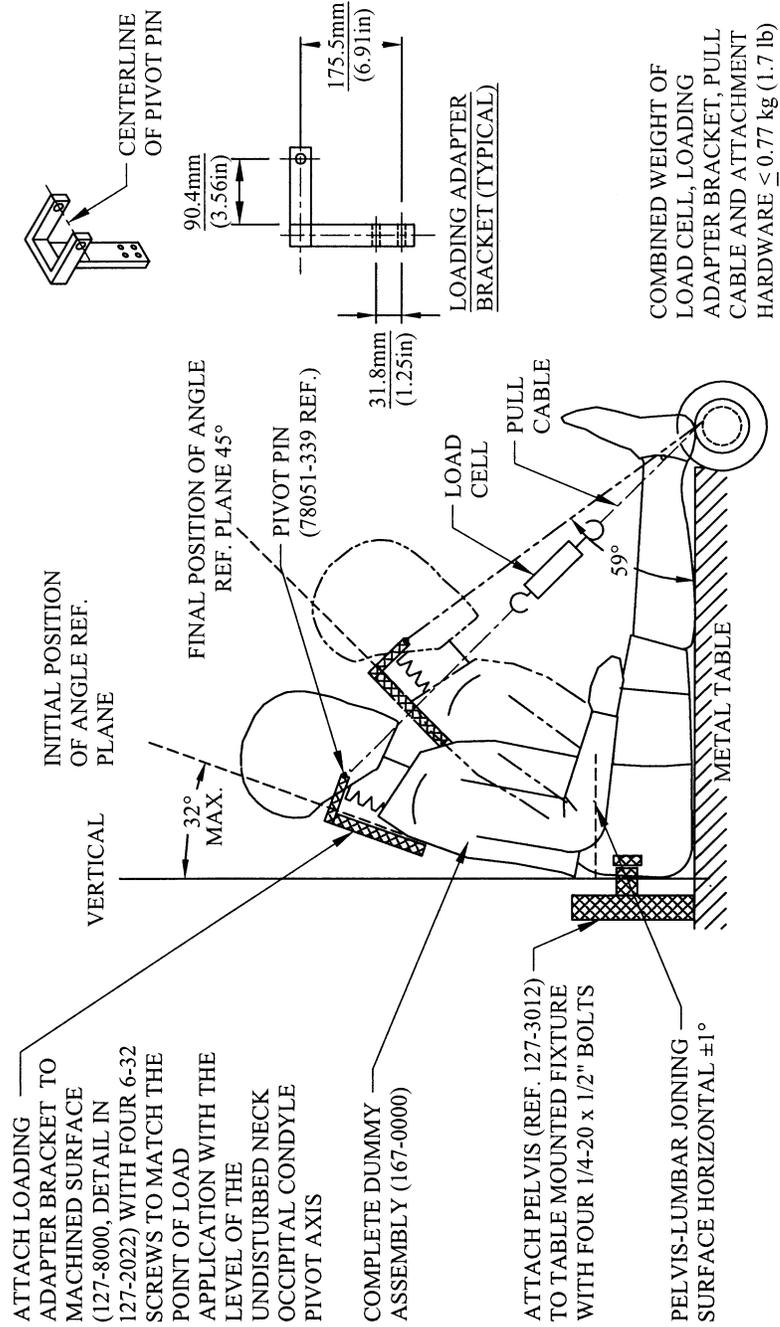
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FIGURE S1  
THORAX IMPACT TEST SET-UP SPECIFICATIONS



\* 1/3 CABLE WEIGHT NOT TO EXCEED 5% OF THE TOTAL IMPACT PROBE WEIGHT  
\*\* PELVIS LUMBAR JOINING SURFACE

FIGURE S2  
 TORSO FLEXION TEST SET-UP SPECIFICATIONS



Issued: May 1, 2003.

Stephen R. Kratzke,

Associate Administrator for Rulemaking.

[FR Doc. 03-11294 Filed 5-6-03; 8:45 am]

BILLING CODE 4910-59-C