

RULES AND REGULATIONS

Title 49—PROFESSIONAL AND VOCATIONAL STANDARDS

STATE BOARD OF MEDICINE

[49 PA. CODE CH. 16]

Corrective Amendment to 49 Pa. Code § 16.13

The State Board of Medicine has discovered a discrepancy between the agency text of 49 Pa. Code § 16.13 (relating to licensure, certification, examination and registration fees), as deposited with the Legislative Reference Bureau, and the official text published at 23 Pa.B. 3780, 3786 (August 14, 1993) and codified in the February, 1994 *Pennsylvania Code Reporter* (Master Transmittal Sheet No. 231), and as currently appearing in the *Pennsylvania Code*. The registration fees for acupuncturists were inadvertently excluded.

Therefore, under 45 Pa.C.S. § 901: The State Board of Medicine has deposited with the Legislative Reference Bureau a corrective amendment to 49 Pa. Code § 16.13. The corrective amendment to 49 Pa. Code § 16.13 is effective as of August 14, 1993, the date the defective official text was printed in the *Pennsylvania Bulletin*.

The correct version of 49 Pa. Code § 16.13 appears in Annex A.

Annex A

TITLE 49. PROFESSIONAL AND VOCATIONAL STANDARDS

PART I. DEPARTMENT OF STATE

Subpart A. PROFESSIONAL AND VOCATIONAL STANDARDS

CHAPTER 16. STATE BOARD OF MEDICINE—GENERAL PROVISIONS

Subchapter B. GENERAL LICENSE, CERTIFICATION AND REGISTRATION PROVISIONS

§ 16.13. Licensure, certification, examination and registration fees.

(a) The examination fee for the December 1995, and following administrations of the USMLE Step 3 examination is \$375.

(b) The fee for a license without restriction for a graduate of an accredited medical college is \$20. The fee for a license without restriction for a graduate of an unaccredited medical college is \$80. The biennial registration fee for a license without restriction is \$80.

(c) The fee for an institutional license is \$35.

(d) The fee for an extraterritorial license is \$10. The biennial registration fee for an extraterritorial license is \$80.

(e) The fee for a graduate license for a graduate of an accredited medical college is \$15. The fee for a graduate license for a graduate of an unaccredited medical college is \$80. The fee to renew a graduate license is \$10.

(f) The fee for a temporary license is \$35.

(g) The fee for an interim limited license is \$10. The fee to renew an interim limited license is \$10.

(h) The fee for a midwife license is \$20. The biennial registration fee for a midwife license is \$25.

(i) The fee for a physician assistant certificate is \$15. The biennial registration fee for a physician assistant certificate is \$25.

(j) The fee for registration as a supervising physician of a physician assistant is \$15.

(k) The fee for registration as a physician assistant supervisor of a physician assistant is \$55.

(l) The application fee for satellite location approval is \$45.

(m) The fee for an acupuncturist registration is \$15. The biennial registration fee for an acupuncturist registration is \$25.

(n) The fee for an acupuncturist supervisor registration is \$15.

(o) The biennial registration fee for a drugless therapist license is \$25.

(p) The biennial registration fee for a limited license—permanent—is \$25.

(q) There is no initial registration fee for a license, certificate or registration subject to biennial registration requirements.

(r) The fees for examination in radiologic procedures are listed in this subsection.

(1) The fee for the ARRT Examination in Radiography is \$30.

(2) The fee for the ARRT Examination in Radiation Therapy Technology is \$30.

(3) The fee for the ARRT Examination in Nuclear Medicine Technology is \$30.

(4) The fee for the ARRT Limited Examinations in Radiography is \$35. Study material may be purchased from the Board for \$21.

(5) The fee for the ARRT Limited Examination in Radiography—Skull and Sinuses is \$35.

(s) The fee for SPEX (Special Purpose Examination) is \$550.

[Pa.B. Doc. No. 96-1531. Filed for public inspection September 13, 1996, 9:00 a.m.]

Title 67—TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

[67 PA. CODE CH. 171]

School Buses and School Vehicles

The Department of Transportation (Department), Bureau of Motor Vehicles, by this order adopts amendments to Chapter 171 (relating to school buses and school vehicles). Notice of proposed rulemaking was published at 25 Pa.B. 5589 (December 9, 1995), with an invitation to submit written comments within 30 days of publication. The Department received seven comments.

Comments Received

The Department received comments from the Independent Regulatory Review Commission (IRRC); American Academy of Pediatrics (AAP); M. A. Brightbill Body Works, Inc. (Brightbill); Elwyn Institute; HMS School for Children with Cerebral Palsy (HMS School); Pennsylvania School Bus Association (PSBA); and the University of Pittsburgh, School of Health and Rehabilitation Sciences, Rehabilitation Engineering Research Center (University of Pittsburgh). The following is a summary of the comments received and the Department's response:

(1) IRRC expressed concern regarding the effective date of these amendments, as set forth in § 171.1(b) (relating to applicability). This subsection was proposed to be amended by establishing an effective date of September 1, 1996. If this final adoption order would have been published prior to the September 1, 1996, effective date, IRRC would not have been concerned with this subsection. However, if circumstances precluded the necessary approvals and publication of the final adoption order before September 1, 1996, IRRC recommended the Department amend this section to make these amendments effective upon publication, or a specific time period after publication.

The Department anticipated adopting these amendments prior to the September 1, 1996, effective date. However, realizing that circumstances may arise that might delay the adoption of these amendments, the Department has heeded the suggestion of IRRC. Section 171.1(b) has been further amended by replacing the proposed September 1, 1996, effective date with an effective date of September 14, 1996, except that §§ 171.55(b) and 171.124(b) are effective September 15, 1997.

(2) IRRC, Elwyn Institute and the HMS School had comments concerning §§ 171.2 and 171.91 (relating to definitions; and general requirements). All three commentators recommended that § 171.2 be amended by revising the definition of the term "specially equipped school bus." The HMS School and Elwyn Institute requested that the Department replace the phrase "special education children" with the phrase "school children enrolled in special education programs." IRRC recommended further clarification to include any children who require specially equipped transportation. In order to focus on the needs, rather than the category of student, IRRC suggested the Department delete the phrase "special education" from the definition.

The concerns regarding § 171.91 are similar. The Elwyn Institute and the HMS School requested the phrase "school buses used for transporting special education (exceptional) children" be amended to read, "school buses transporting students who are enrolled in special education." IRRC recommended that the Department incorporate language from the definition of "special education (exceptional) children," located in § 171.2, into the language of § 171.91. Further, if the Department accepts this recommendation, IRRC further recommended the deletion of the definition of "special education (exceptional) children" since the definition would no longer be necessary.

Since the purpose of this chapter is to promulgate equipment, operation and safety standards for school buses and other vehicles used to transport school children, the Department agrees with IRRC that the definition of the term "specially equipped school bus" should address the needs of the student. The Department, therefore, has further amended the definition of the term

"specially equipped school bus" by deleting the phrase "special education." Further, the definition of the term "special education (exceptional) children" has been deleted since this term is mentioned only in § 171.91. Moreover, the Department has taken the advice of IRRC and deleted the term "special education (exceptional) children" from § 171.91 and replaced it with language explaining the term. The replacement language, however, differs from that presently in § 171.2. The definition of the term "special education (exceptional) children" was incorporated from 24 P. S. § 13-1371, which included a definition of "exceptional children." This section was amended by the act of June 30, 1995 (P. L. 20, No. 26) by replacing the phrase "exceptional children" with the phrase "children with exceptionalities." Further, the definition for this term was substantially amended. Therefore, § 171.91 has been further amended by incorporating the applicable amended language of 24 P. S. § 13-1371. The relevant language defines "children with exceptionalities" as "children of school age who have a disability."

Finally, IRRC questioned why the Department proposed to amend the definitions of the terms "bus," "GVWR," "school bus" and "school vehicle" by referencing the corresponding definitions in 75 Pa.C.S. § 102 (relating to definitions). IRRC recommended that the Department include in the final-form regulations the complete definitions for these terms as set forth in the 75 Pa.C.S. (Vehicle Code). The Department, after further discussion with IRRC, realizes that the referencing of the Vehicle Code definitions will cause persons affected by these regulations to go to another source to determine the meaning of these terms. Therefore, to alleviate any problems that may have been created by referencing the Vehicle Code definitions, the Department has further amended this section by including the Vehicle Code definitions for the terms "bus," "GVWR," "school bus" and "school vehicle."

(3) IRRC, Brightbill, Elwyn Institute and the HMS School commented on § 171.21 (relating to exhaust system). Subsection (a) requires the exhaust pipe, muffler and tailpipe to be securely attached to the chassis. The Elwyn Institute, HMS School and IRRC requested the Department establish a specific standard or other qualification to clarify what is meant by "securely" attached. According to the inspection criteria at § 175.110(d)(6) (relating to inspection procedure), an inspection station mechanic shall reject a bus if the exhaust system elements are not securely fastened with proper clamps and hangers. The Department believes that the phrase "proper clamps and hangers" relates to clamps and hangers installed and recommended for use by the manufacturer. To eliminate confusion of affected persons, and to promote the safety of school bus occupants and the motoring public, the Department, therefore, has amended § 171.21(a) to require the exhaust system to be secured to the chassis with clamps and hangers of a type and installed as recommended by the chassis manufacturer. The Department believes this amended language more clearly indicates how to attach the exhaust pipe, muffler and tailpipe to the chassis.

Brightbill believed the Department should extend, from June 15, 1998, to September 1, 2000, the deadline for equipping nonconforming school buses with tailpipe extensions that do not discharge to the atmosphere at or within 6 inches forward of the rearmost part of the school bus. Citing an estimated \$500—\$900 to convert a side-discharging exhaust pipe to a rear-discharging exhaust pipe, Brightbill opined that the longer phase-in time would allow school districts and contractors to better

budget for the conversion of nonconforming exhaust systems.

The amendments to this section were proposed to bring the Department's school bus exhaust system requirements into conformance with Federal Motor Carrier Safety Regulations at 49 CFR 393.83 (relating to exhaust system location). School bus manufacturers must manufacture school buses in compliance with these, and other applicable Federal regulations. Further, when a school bus is used for purposes other than school bus operations, or is being operated in interstate commerce, it is required to comply with Federal Motor Carrier Safety Regulations.

In this Commonwealth, school buses are not used exclusively for the transportation of school children. Many school buses are also used for other types of transportation needs, some of which necessitate operating in interstate commerce. School buses equipped with nonconforming tailpipe systems could be cited for violating the Federal Motor Carrier Safety Regulations when traveling in other states. An additional issue was brought to the Department by school bus drivers and legislators. These entities were concerned about exhaust fumes filtering through open windows into the passengers' compartment.

Before publishing the proposed amendment, the Department met with members of the Commonwealth's Pupil Transportation Advisory Committee and the State Police to discuss the amendment. At this meeting, the parties discussed the estimated cost differences involved, life expectancy of the tailpipe and an appropriate time period to allow for compliance with the proposed amendment. Moreover, upon receipt of Brightbill's comment, the Department contacted Rohrer Bus Service to obtain cost estimates for the installation of the Federally-required exhaust system.

Using International buses as an example, it would cost approximately \$171.19, including labor, to have the tailpipe extend at or within 6 inches forward of the rear part of the bus. This is an increase of \$53.39 over the installation of a tailpipe that extends within 60 inches to the left rear wheel as measured from the center of the wheel axis. For diesel-powered school buses, the cost would be approximately \$206.16, resulting in an increase of \$36.86. The life expectancy of a tailpipe is estimated at approximately 3 years. This information tallies with the information that was discussed at the meeting with the Commonwealth's Pupil Transportation Advisory Committee and State Police. The proposed June 15, 1998, date was agreed upon as a reasonable and fair compliance date for the amendment. For these reasons, the Department believes it is necessary for this section to remain consistent with Federal requirements and that conformance with Federal exhaust system requirements should not be further delayed.

(4) IRRC, the AAP, Elwyn Institute and HMS School expressed concerns about § 171.31 (relating to passenger's load). IRRC noted that the heading for § 171.31(b)(4) reads "Gross vehicle weight training" and suggested that it should read "gross vehicle weight rating." This heading is the result of an inadvertent printing error that occurred at publication. IRRC was correct in its belief that the heading should read "Gross vehicle weight rating." The Department appreciated IRRC bringing this error to its attention and has amended this heading accordingly.

Further, the Elwyn Institute and HMS School expressed concern about how the total seated pupil weight is determined. Both commentators suggested the Depart-

ment look to the 1995 *National Standards for School Transportation* for suggested language. The Department compared the language of the suggested standards with that of § 171.31(a) as a whole. Paragraph (1) of this subsection states that the driver's weight, for the purposes of calculation, is 150 pounds. Paragraph (2) states the pupil weight is 120 pounds per pupil. This language is identical to that of the 1995 *National Standards for School Transportation*. The language in § 171.31(b)(1) and (2) is substantially similar to the language dealing with maximum actual gross weight and axle weight in the 1995 *National Standards for School Transportation*. Therefore, the Department believes it is unnecessary to amend § 171.31 since that section contains essentially the same information as the definition of the term "passenger load" in the 1995 *National Standards for School Transportation*.

Finally, the AAP, Elwyn Institute and HMS School requested the Department clarify how to calculate the passenger load if a student is transported with additional equipment, for example a wheelchair, mobility device or another type of medical equipment. There are many variances in elements such as style, size and weight of wheelchairs, mobility devices and other types of medical equipment. There is no one specific or average weight the Department may use to clarify calculation of the passenger load when medical equipment is involved. As the HMS School pointed out, some wheelchairs are quite heavy. For example, a wheelchair designed for easy folding and storage is usually manufactured at a minimal weight, whereas an electric powered wheelchair may weigh several hundred pounds. This information is better known at the school or school district level. School personnel shall consider the number and weight of these items, as well as the number of passengers being transported, when planning school bus routes in order avoid exceeding the maximum gross vehicle weight indicated on the Federal weight certification label and to comply with section 4945 of the Vehicle Code (relating to penalties for exceeding maximum weights).

In addition, after checking page 19 of the 1995 *National Standards for School Transportation*, the Department found that this page does not give a detailed gross vehicle weight calculation for school buses transporting students who utilize wheelchairs or other types of mobility devices. Therefore, the Department believes it is inappropriate to further amend this section to provide further information for calculating the passenger load when students are being transported with additional equipment. These calculations are best left to the individual school or school district, which is better able to ascertain its resources and is aware of when the issue of a wheelchair or other mobility device becomes relevant.

(5) Brightbill, the PSBA and IRRC expressed concern regarding § 171.47 (relating to color). The PSBA and IRRC believed the introductory language of paragraph (3) to be mandatory, which would be in direct contradiction of the intent the Department expressed in the Preamble of the notice of proposed rulemaking, published at 25 Pa.B. 5589. The language in contention is as follows: "School buses equipped with reflective material, other than that required under §§ 171.50 and 171.59 (relating to doors and emergency exits; and lamps and signals), shall be equipped with reflective material. . . ." The Department interprets this sentence as applying only to school buses equipped with reflective material other than that provided for in §§ 171.50 and 171.59. This paragraph, therefore, does not apply to school buses without additional reflective material. Realizing, however, that the

language as proposed has inadvertently generated confusion, the Department has further amended this section to clarify that if a school bus is equipped with reflective material—other than that required by §§ 171.50(b)(3) and 171.59(b)(2)(vi)(A)—the additional reflective material shall be applied consistent with § 171.47(3).

Further, Brightbill recommended the Department amend its minimum and maximum width requirements for additional reflective material applied to the side of a school bus. The Department proposed that the material be at least 6 inches in width, and not more than 12 inches in width. Brightbill stated that the Blue Bird Corporation has been installing a 2-inch strip of reflective material the full length of each side of its school buses and the strips have provided excellent side visibility at dawn and evening hours. A 6-inch to 12-inch strip, Brightbill asserted, would be too wide, unnecessary and more prone to peel off or be damaged in collisions. To alleviate this problem, Brightbill recommended the reflective material be between 2 inches and 4 inches in width.

The Department obtained the 6-inch to 12-inch recommendation from the 1990 *National Standards for School Buses and National Standards for School Bus Operations*. This recommendation was adopted by the majority of states. However, after publication of the notice of proposed rulemaking at 25 Pa.B. 5589, the Department noted that the 1995 *National Standards on School Transportation* amended its recommendation to a 1 and 3 1/4-inch minimum. This recommendation falls in line with that of Brightbill's. Since these reflective markings are optional, and since Brightbill's claims have merit, the Department has further amended § 171.47 by deleting the 6-inch to 12-inch requirement and replacing it with a 1 and 3 1/4-inch to 4-inch requirement. This amendment will reduce costs to school bus owners and operators wishing to affix additional reflective material to their school buses, yet will not compromise safety by diminishing a school bus' visibility in fog and inclement weather.

(6) The AAP, Elwyn Institute, HMS School and IRRC expressed concern about how fire extinguishers and first aid kits were to be mounted in school buses. Sections 171.51 and 171.52 (relating to fire extinguisher; and first aid) require school buses to be equipped with a fire extinguisher and first aid kit. These items are to be mounted in the driver's compartment. Sections 171.122, 171.123, 171.132 and 171.133 mirror the requirements of §§ 171.51 and 171.52.

All commentators recommended the Department establish specific test criteria concerning how these items are mounted. IRRC requested the Department clarify the phrase "securely placed and mounted." The AAP agreed with IRRC's request and further suggested the phrase be clarified in terms of a 30mph/20g sled test. The Elwyn Institute and HMS School requested that mounted items comply with some type of crash testing criteria, suggesting the following language from the 1990 *National Standards for School Buses and National Standards for School Bus Operations*: "Portable student support equipment or special accessory items shall be secured at the mounting location to withstand a pulling force of five times the weight of the item, or shall be retained in an enclosed, latched compartment."

After extensive research, which included contacting the National Highway Traffic Safety Administration (NHTSA), Society of Automotive Engineers (SAE) and the University of Pittsburgh, the Department was unable to locate a Federal or SAE sled test or crash test standard that specifically addresses the mounting and installation

of first aid kits, fire extinguishers or portable life support equipment. The information the Department received from the University of Pittsburgh revealed that the test requirements and specifications mentioned in their comments, SAE J2249, have not been finalized. A working committee is drafting language for an SAE J2249, which the committee hopes to present to NHTSA in an effort to encourage the amendment of Federal crash test standards, specifically 49 CFR 571.201, Federal Motor Vehicle Safety Standard (FMVSS) No. 201 (relating to occupant protection in interior impact). This standard addresses occupant protection for passenger cars and multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating of 10,000 pounds or less. Presently, however, SAE J2249 is not available. Moreover, if SAE J2249 is established as a part of FMVSS No. 201, its requirements would not extend to school buses.

Further, portable life support systems and other types of medical equipment that are not school bus or passenger vehicle equipment items usually must remain near the person using the equipment. Since the securement of these items is not, at this time, addressed by Federal school bus or passenger vehicle equipment test standards, and an SAE test standard is not available, the Department believes it inappropriate to amend this chapter to address sled test or crash test requirements not yet established through Federal or SAE standards. The Department, after further discussion with IRRC, has instead amended §§ 171.51 and 171.52 to require fire extinguishers and first aid kits to be mounted as directed by the manufacturer. This requirement will give guidance to those installing these items. Mirror provisions at §§ 171.122, 171.123, 171.132 and 171.133 have been similarly amended to reflect this change.

(7) The AAP, Elwyn Institute and HMS School expressed concern regarding § 171.56 (relating to inside height). This section sets forth the minimum inside body height of a school bus, which is 72 inches. The commentators requested the Department establish a minimum height allowance for school vehicles. The Elwyn Institute and HMS School noted that some adolescent students, transported on school vehicles in wheelchairs, barely have head clearance into the vehicle via the wheelchair lift area, let alone within the van itself. These commentators requested the Department establish a headroom clearance standard for school vehicles that would, in effect, require students in wheelchairs to be transported in school buses instead of school vehicles.

Since § 171.56 pertains only to school buses, amending this section to address school vehicle inside height would be inappropriate. The term "school vehicle" applies to passenger cars, multipurpose passenger vehicles, trucks and other vehicles designed and manufactured to meet motorists' basic transportation needs. These vehicles come in various makes, models and body styles and are not designed and manufactured for transporting school children. Further, section 4553 of the Vehicle Code (relating to general requirements for other vehicles transporting school children) allows a school-chartered vehicle to be used without restriction for the transportation of school children with special needs as may be necessary to make reasonable accommodations under the Americans with Disabilities Act of 1990. Since the Legislature did not grant the Department the authority to prescribe the height and other dimensions of school-chartered vehicles, and since school vehicles met the applicable Federal safety requirements when these vehicles were manufactured, the Department believes it lacks authority to address the inside height of school vehicles or 11—15

passenger vehicles used for the transportation of school children with special needs.

In addition, this chapter applies to equipment and safety requirements for school buses as provided for in section 4552 of the Vehicle Code (relating to general requirements for school buses) and for other vehicles transporting school children as provided for in section 4553 of the Vehicle Code. Section 4553(b) of the Vehicle Code permits a school-chartered vehicle to be used without restriction for the transportation of school children with special needs. Accordingly, the Department does not believe it has the authority to designate the type of vehicle a school or a school district must use to transport students with special needs.

(8) The PSBA expressed concern regarding § 171.59(b)(2) which sets forth the requirements for the use of stop signal arm devices on school buses. Section 171.59(b)(2)(v) was proposed to prohibit lettering, symbols or markings on the forward side of the rearmost stop signal arm if two stop signal arms are used. It was unclear to PSBA why the second stop signal arm may not have the word "STOP" printed on both sides, and PSBA suggested that this prohibition be removed. The PSBA believed that allowing both sides of the stop signal arm to be lettered would not deter from the safety function of the device. In fact, the PSBA believed eliminating this prohibition could enhance the safety function of the device for a passing motorist who, not seeing the first arm, observes the second arm further along the school bus. Further, the PSBA noted that this amendment would require school bus contractors and school districts to stock two different stop signal arms. The PSBA rightly pointed out that it would be more cost efficient to stock one stop signal arm than two different ones. For these reasons, the PSBA recommended the second stop signal arm should have the word "STOP" on both sides.

The amendments to this section were proposed to bring the Department's stop signal arm requirements into conformance with FMVSS No. 131 (relating to school bus pedestrian safety devices). School buses are not required to be equipped with a second stop signal arm by either FMVSS No. 131 or section 4552(b.1) of the Vehicle Code. However, manufacturers who equip new school buses with a second stop signal arm must comply with FMVSS No. 131. In other words, the second stop signal arm may not have lettering, symbols or markings on the forward side and the forward side may not be reflectorized.

If the Department acceded to the PSBA's request, the consequences would be threefold. First, school bus manufacturers would not be permitted to manufacture and sell school buses with nonconforming second stop signal arms for use in this Commonwealth. Second, persons operating school buses with nonconforming second stop signal arms could be cited for violating FMVSS No. 131 if traveling in interstate commerce. Third, school districts and school bus contractors who have nonconforming second stop signal arms installed on their school buses could be cited for violating § 171.84 (relating to additional equipment items). Section 171.84 requires equipment installed after manufacture to comply with applicable Federal standards. Therefore, to avoid these consequences, the Department has refrained from amending § 171.59(b)(2) as requested.

(9) The Elwyn Institute and HMS School commented on § 171.68(b) (relating to seat belts). Both commentators requested clarification on how Type 2 seat belts would be mounted for mid-row or aisle passenger seats. This request arose from the wording of the following sentence:

"All other designated seating positions shall have a Type 1 and Type 2 seat belt assembly." The Department, after reading the sentence in question, realized that the word "and" was included in the sentence in error. Therefore, the word "and" has been replaced with the more appropriate preposition "or." This amendment is designed to clarify that either a Type 1 or Type 2 seat belt assembly may be used. Since Type 2 seat belts cannot be used for mid-row or aisle seats because there exists no location on which to secure the upper torso restraint, Type 1 seat belts would be used at these seating positions. The Department appreciated the Elwyn Institute and HMS School bringing this error to its attention and believes this amendment will alleviate their concerns.

(10) IRRRC, the AAP, Elwyn Institute, HMS School and PSBA all expressed concern regarding § 171.69 (relating to seats and crash barriers). The Elwyn Institute, HMS School and PSBA were concerned about the exemption in § 171.69(4) relating to car seats manufactured and designed for use on school buses. The PSBA commented that there is not a car seat approved for use on a school bus. However, the Elwyn Institute and HMS School commented that currently there are only a few child safety seats—the MCM and Carrie Bus seats—manufactured and crash tested for use on school bus seats. Further, the AAP, Elwyn Institute and HMS School requested the Department define the term "portable seats."

On August 7, 1995, the Department met with the PSBA and members of the Pupil Transportation Committee to discuss these amendments. The attendees informed the Department that they were unaware of child safety seats manufactured for school bus seats. It was agreed that the Department would amend these regulations to exempt only child safety seats designed and manufactured under FMVSS No. 213 (relating to child restraint systems). The Department, therefore, has further amended § 171.69(4) to reflect this requirement. Moreover, since the intent of this paragraph is to ensure that safe seats are used on school buses, the Department has further amended this section by deleting references to specific types of seats and clarifying that any seat that does not meet the requirements of FMVSS No. 222 (relating to school bus passenger seating and crash protection) is not permitted. The Department believes this clarification will alleviate the need to list the types of seats allowed on school buses. Moreover, the Department has further amended this paragraph by deleting the unnecessary phrase, "designed and manufactured for use on school bus seats," since FMVSS No. 213 applies to child restraints and seats designed for use in airplanes and motor vehicles, and school buses fall into the latter category.

Further, the Elwyn Institute and HMS School requested the Department rephrase § 171.69(8) as follows: "All seating shall be forward-facing." The commentators believed this wording will clarify that wheelchairs, as well as traditional seating, must be forward-facing. The Department does not believe it necessary to amend this paragraph as requested since the current language reads: "Seats shall be forward-facing," and § 171.93(1) (relating to securement devices and safety restraints) clearly states that wheelchairs or other types of mobility devices are to be secured in a forward-facing position.

Finally, the AAP questioned what is meant by the phrase "securely mounted" as used in § 171.69(9) and asked at what force the seat is likely to disengage or crumble. IRRRC, the Elwyn Institute and HMS School expressed similar concerns. The Department realizes that

the word "securely" is an ambiguous term and has therefore further amended this paragraph to clarify that seats are to be installed so as to prevent seats from disengaging from the seat frame under extraordinary operating conditions. Since school bus manufacturers shall install school bus seats under FMVSS No. 222, and § 171.84 requires equipment added to a school bus after its manufacture to meet applicable Federal standards, the Department believes no further clarification is necessary.

(11) IRRC and the AAP expressed concern regarding § 171.84. The AAP believed the wording should be broad enough to allow for new technology currently in the design process. Further, the AAP suggested that additional equipment that accompanies a child, such as oxygen or a ventilator, be mounted or secured according to the 30mph/20g sled test criteria. IRRC agreed with this suggestion, but recommended the Department add the requirement to a new section in Subchapter D (relating to specially equipped school buses).

The Department believes the current language is broad enough to allow for new technology for school bus equipment. If the equipment is not required by Federal or State law, the equipment will be allowed if it does not replace or interfere with mandatory equipment, and possesses the trademark, name or code symbol under which it is approved. This language does not exclude new technology or address how the equipment is designed. However, this language does not, nor is it intended to, allow for the addition of experimental equipment. The Department wishes to ensure, as much as possible, that school buses have equipment that has been adequately tested and performs its intended function.

Further, the Department believes that personal equipment such as oxygen and ventilators should remain near the student using the equipment. At this time, neither Federal nor SAE standards explicitly address mounting or securing requirements for personal equipment. Extensive research has revealed that the SAE J2249 mentioned by the commentators is presently being drafted by a working committee at the University of Pittsburgh. This committee anticipates presenting the proposed SAE J2249 language to the NHTSA. The hope is that the NHTSA will amend FMVSS No. 201 to include the SAE J2249. The purpose and scope of FMVSS No. 201, however, is to specify requirements to afford impact protection for occupants for passenger cars and multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating of 10,000 pounds or less. Therefore, until there are Federal or SAE standards developed to specifically address mounting or securing equipment such as oxygen and ventilators, the Department believes it inappropriate to add a new section in Subchapter D to provide more specific or detailed sled test or other crash test requirements relating to mounting or securing this equipment.

(12) The Elwyn Institute and HMS School requested the Department consider amending § 171.91 to include vehicles such as minivans. The commentators want the Department to establish standards for passenger vehicles that transport students enrolled in early intervention services. According to 11 P.S. § 875-102 (relating to legislative findings for early intervention), early intervention services are designed to increase "the opportunity for infants, toddlers and eligible young children who are handicapped in order to minimize their potential for developmental delay." Students enrolled in early intervention services are usually transported in minivans and other passenger vehicles that conform with only the

Federal safety requirements for the vehicle as originally manufactured.

Since § 171.91 pertains only to specially equipped school buses, an amendment addressing the utilization of other vehicles such as minivans would be inappropriate. Further, although the Department understands the concerns of the Elwyn Institute and HMS School, amending the school vehicle subchapter to mirror the provisions for specially equipped school buses would be inappropriate at this juncture. The vehicles and entities that would be affected by the suggested amendment would be numerous. Further, since the suggested amendment was not mentioned in the notice of proposed rulemaking, the affected entities have not been afforded the opportunity to comment. Moreover, the costs involved in adapting affected vehicles to requirements similar to those for specially equipped school buses would be prohibitive since the affected entities would not have had the opportunity to budget for these adaptations. Therefore, the Department has refrained from amending this section as requested. The Department will, however, address this issue at future meetings of the Transporting Students with Special Needs Task Force so the affected parties may discuss the issue and provide suggestions on how best to proceed.

(13) IRRC, the PSBA, Elwyn Institute, HMS School, AAP and University of Pittsburgh all expressed concern regarding § 171.93. The Elwyn Institute and HMS School requested the Department clearly define the term "mobility device," and suggested including parameters that would be requisite for transportation of powered scooters.

Prior to the proposal of this amendment, the Department attempted to obtain an official medical term or definition for the term "mobility device." To that end, the Department spoke to various medical organizations as well as facilities selling mobility devices. Further, upon receipt of these comments, the Department contacted the HMS School for its input in obtaining a definition for the term "mobility device." In both instances, the Department could not find anyone aware of an official medical term or definition that would encompass all available types and styles of devices used for children with special needs. The Department believes school buses are used to transport students with any special need and the term "mobility device" should be broad enough to include any type of device that may be used by these students, not just wheelchairs or powered scooters. Moreover, the Department used a term that is similar to the one used in the 1990 *National Standards for School Buses and National Standards for School Bus Operations* and the 1995 *National Standards for School Transportation*. In both publications, the term used for these devices is "other mobile positioning device," whereas FMVSS No. 222 only provides requirements for wheelchairs. The Department also believes the current language must be broad enough to allow for emerging technology for these devices.

Further, the University of Pittsburgh commented based on the assumption that this subchapter includes school buses, as defined by FMVSS 222, and smaller—less than 10 passengers—multipurpose passenger vehicles (MPVs). The University of Pittsburgh believes that, due to the manner in which securement and restraint devices are manufactured, tested, installed and used, it is reasonable to assume the same products will be used in both sizes of vehicles. The University of Pittsburgh further asserts that FMVSS 222 does not recognize this important fact, as it only requires a static pull test of the securement devices; a test the University of Pittsburgh believes does

not adequately cover the situation in which a lighter vehicle is involved in crash conditions. The University of Pittsburgh believes the 1995 *National Standards for School Buses* recognizes this limitation by requiring dynamic testing to SAE Standard J2249 and strongly urges the Department to seriously consider this precedent and add this requirement to Chapter 171. The University of Pittsburgh believes SAE J2249 will assure that an occupant will be secured and restrained at impact crash loads up to 20g/30mph, providing even greater protection for lighter school aged children.

The Department contacted the Society of Automotive Engineers and the University of Pittsburgh to find out more about the 20g/30mph sled test and SAE J2249. The SAE was unaware of an SAE J2249 or the sled test. According to the University of Pittsburgh, SAE J2249 has not yet been developed. Members of the University of Pittsburgh are on a working committee developing language and specifications for a sled test and SAE J2249, which the committee expects to present to the NHTSA to encourage the amendment of FMVSS No. 201. This Federal standard applies to passenger cars and to MPVs, trucks and buses with a gross vehicle weight rating of 10,000 pounds or less. However, FMVSS 222 relates only to school bus passenger seating and crash protection and does not, as the University of Pittsburgh infers, apply to passenger cars, MPVs, trucks or other vehicles. The Department believes the University of Pittsburgh's confusion concerning MPVs and school buses being equipped to transport students with special needs may be caused by the introductory language for a section on "Standards for Specially Equipped School Buses" found in the 1995 *National Standards for School Transportation*. The language reads as follows: "As defined by Code of Federal Regulations (CFR) 49 § 571.3, "Bus means a motor vehicle with motive power, except a trailer, designed for carrying more than 10 persons" (11 or more including the driver). This definition also embraces the more specific category, school bus. Vehicles with 10 or fewer passenger positions (including the driver) cannot be classified as buses. For this reason, the Federal vehicle classification multipurpose passenger vehicle (CFR 49 § 571.3) or MPV, must be used by manufacturers for these vehicles in lieu of the classification school bus. This classification system, while requiring compliance with a less stringent set of Federal standards for MPVs, does not preclude state or local agencies or these national standards from requiring compliance of school bus-type MPVs with the more stringent Federal standards for school buses."

Under section 4103(b) of the Vehicle Code (relating to promulgation of vehicle equipment standards), promulgated Federal standards have the same force and effect as if promulgated by the Department and supersede any Commonwealth standard applicable to the same aspect of performance for a vehicle or item of equipment. Since wheelchair accommodation is not mentioned in Federal standards relating to MPVs, the Department believes that issues such as wheelchair securement anchorages, latches and wheelchair occupant restraint anchorage requirements for school buses could be applied to MPVs, so long as the Federal standards for these vehicles will not be compromised by the installation of the additional equipment. However, an amendment of this magnitude would be inappropriate at this juncture. The vehicles and entities that would be affected by the suggested amendment would be numerous. Further, since the suggested amendment was not mentioned in the notice of proposed rulemaking, the affected entities have not been afforded the opportunity to comment. Moreover, the costs involved

in adapting affected vehicles would be prohibitive since affected entities have not had the opportunity to budget for these adaptations.

Moreover, on February 29, 1996, the Department conducted a roundtable meeting with the Elwyn Institute, the HMS School and other interested persons and organizations. The topic of discussion was transporting students with special needs. As in the comments received from the Elwyn Institute and HMS School and several telephone conversations with the HMS School, one of the requests was for the Department to give greater detail regarding issues such as the size, style and condition of child safety seats, wheelchairs and other types of mobility devices students may use. The HMS School also questioned whether an unoccupied wheelchair or other type of mobility device must be carried forward-facing.

The Department believes it inappropriate to further specify, in this chapter, issues such as the size, style and condition of wheelchairs and other types of mobility devices students may use since these are personal equipment items, normally purchased by the parent. In addition, since the Vehicle Code authorizes the Department to establish school bus equipment regulations, the Department believes it does not have the authority to establish standards in this chapter for wheelchairs and other types of mobility devices since these items are not school bus equipment. Further, the FMVSS No. 222 requires wheelchair locations in school buses to be equipped so wheelchairs can be secured in a forward-facing position. These standards do not differentiate between occupied or unoccupied wheelchairs. The Department believes these standards apply to all wheelchair locations. Therefore, all wheelchairs or other type of mobility devices, occupied or unoccupied, shall be secured in a forward-facing position.

(14) The Elwyn Institute and HMS School requested that § 171.96 (relating to power lift) be amended by revising the phrase "transportation of school children confined to wheelchairs" to read "transportation of school children who utilize wheelchairs." The Department agrees with the HMS School that the suggested wording would be more appropriate and has amended this section accordingly.

(15) The AAP, Elwyn Institute and HMS School expressed concern regarding § 171.101 (relating to seating arrangements). These commentators believe it may be necessary to remove vehicle seats or increase distance between seats to allow for sufficient head excursion and leg space when accommodating child restraint systems. This in turn, would compromise the seating requirements of FMVSS No. 222 as they currently exist. The Elwyn Institute and HMS School further requested clarification of what is considered seating space; for example, is it the space from side to side or from front to back.

In response to these concerns, the Department has further amended this section by deleting the sentence "Flexibility in seat spacing to accommodate special devices shall be permitted." The sentence "Seating shall be forward-facing," will remain. The Department believes that this amendment will ensure that all affected parties are notified that seating in specially equipped school buses must be forward-facing, whether it is traditional seating or other seating such as wheelchairs. Although the removal of seats may take place, § 171.16 (relating to certification) clearly states that additions or alterations to a school bus chassis after the time of manufacture must be certified, to the Department, as meeting the requirements of the National Traffic and Motor Vehicle Safety

Act of 1966 (15 U.S.C.A. §§ 1381—1481) and the requirements of this chapter. Further, § 171.45 (relating to certification) clearly states that persons or entities may not alter a previously certified school bus in a way that does not conform to applicable FMVSS in effect at the time of manufacture, and § 171.84 requires equipment added and alterations made to a school bus after its manufacture shall meet applicable Federal standards. For these reasons, the Department believes it unnecessary to further amend § 171.101 to clarify that removal of seats may not result in the compromise of the requirements of FMVSS No. 222.

(16) The PSBA encouraged the Department to consider adopting language that would allow the installation of air conditioners in school buses. Although the current language does not specifically prohibit air-conditioning units, there is no guidance as to where after-market air-conditioning units can be installed without violating Federal and State safety standards. On August 7, 1995, the Department met with the PSBA and members of the Pupil Transportation Committee to discuss after-market interior mounted air-conditioning units on school buses. The parties agreed that these amendments should specify the acceptable locations for after-market air-conditioning units. There have been instances where school buses have failed school bus safety inspection because the installed after-market air-conditioning unit interfered with Federal safety standards. Accordingly, the Department has further amended the language in § 171.56 to clarify that the 72 inches or more required inside body height of a school bus must exist from the front vertical bow to the rear interior ceiling-mounted air-conditioning unit. Further, the Department has added a new paragraph (6) to § 171.58 (relating to interior) that addresses air-conditioning units. Subparagraph (i) requires after-market air-conditioning units to be labeled in accordance with 49 CFR 567.7 and 568.8 (relating to requirements for persons who alter certified vehicles). These Federal standards require the installer to affix a label to the vehicle certifying that the vehicle, as altered, conforms to all Federal motor vehicle safety standards affected by the alteration and in effect at the time of manufacture. Subparagraph (ii) requires interior ceiling-mounted air-conditioning units, mounted above the seats within the head protection zone or at the rear of the bus, to be padded with materials meeting FMVSS No. 302 (relating to flammability of interior materials) to insure compliance with the head impact test requirements of FMVSS No. 222. Finally, subparagraph (iii) clarifies that air-conditioning units may be installed in other locations if they are labeled as described in subparagraph (ii). The Department believes that these amendments will ensure air-conditioning units are installed so as not to weaken the school bus' joint strength, body structure or other required safety feature. Further, these amendments will provide guidance for inspectors when conducting school bus safety inspections.

(17) The AAP submitted general comments relating to transporting children under 5 years of age and the prohibition on the use of small passenger vans for transporting these children. The AAP believes that because small vans that meet passenger vehicle requirements are now available, these vehicles should be revisited as possible carriers for children under 5 years of age. The current language in Subchapter E (relating to school vehicle standards), which has been in place since 1984, addresses equipment requirements for school vehicles. School vehicles are motor vehicles, except motor cycles, that are designed to seat no more than ten passengers, including the driver, and used for the transportation of

preprimary, primary or secondary school students. Proposed language in this subchapter also addresses certain 11—15 passenger vehicles registered as buses before March 1, 1993, or September 1, 1993, which may be used for the transportation of school children. The Department is unaware of the prohibition discussed by the AAP, since the Department did not implement the prohibition. Therefore, the Department believes it unnecessary to make further amendments allowing the use of small vans for transporting school children.

(18) IRRC expressed concern about §§ 171.125 and 171.139 (relating to seating). IRRC questioned how the Department determines what is adequate and recommended the Department cross reference the specifications found at §§ 171.69(2) and 171.101 in these sections. Cross referencing school bus seating standards and specially equipped school bus seating standards in §§ 171.125 and 171.139 would be inappropriate for the following reasons. Section 171.125 addresses the seating requirements for school vehicles and 11—15 passenger vehicles permitted to be used for transporting school children. Section 171.139 addresses the seating requirements for mass transit pupil transportation buses when used for transporting school children. The seating systems in passenger vehicles and mass transit pupil transportation buses are designed and manufactured differently than school bus seats.

Further, FMVSS No. 207, 208 and 209 (relating to seating systems; occupant crash protection; and seat belt assemblies) address seating requirements for passenger cars, trucks and buses. For example, passenger cars, trucks and buses 10,000 pounds or less are required to have a seat belt assembly at each designated seating position. Therefore, a vehicle operator can easily determine the number of designated seating positions per seat merely by counting the number of seat belt assemblies per seat. However, school bus seats are manufactured to be in compliance with FMVSS No. 222 and are normally 39-inch bench type seats without seat belt assemblies. The specific seating space width found in § 171.69(2) was derived from using the basic formula set forth in FMVSS No. 222 and was adopted from standards recommended by the National Conference on School Transportation and therefore would not be applicable to other types of vehicles. For these reasons, the Department believes it inappropriate to provide the cross references requested.

The Department, however, has amended § 171.2 by including a definition for the term "designated seating position." This definition is derived from 49 CFR 571.3 (relating to definitions) and will help determine the amount of seating available on vehicles other than school buses. Further, the Department has further amended §§ 171.125 and 171.139 to clarify that a designated seating position shall be provided for each passenger.

(19) IRRC expressed concern about § 171.147 (relating to fire extinguishers). IRRC questioned who provides and performs the inspection and signs the approval. This section was originally proposed to require inspection of fire extinguishers at least once a year, and that the fire extinguishers were to be tagged, signed and dated upon approval. IRRC has suggested that identification of the approving agency and party be added to this section. As a result of further discussion with IRRC, the Department has further amended this section to clarify that the owners of vehicles subject to this chapter must have the fire extinguishers on their vehicles inspected at least once a year. Therefore, it will be the responsibility of the owner to ensure that the fire extinguishers are inspected and approved at least once a year.

(20) IRRC questioned why the Department merely cited section 4530(b) of the Vehicle Code (relating to portable emergency warning devices) instead of incorporating the requirement into § 171.150 (relating to use of portable emergency warning devices). Section 4530(b) of the Vehicle Code requires the driver of a bus to display portable warning devices when the vehicle is disabled or stopped for more than 10 minutes upon a roadway or shoulder outside of an urban district, or upon any divided highway. These portable warning devices are to be displayed as set forth in Department regulations. IRRC believes it would be more useful to incorporate the requirements of section 4530(b) of the Vehicle Code in § 171.150.

The Department has reevaluated this section and realizes the language does not clarify which vehicles are required to have portable warning devices. Therefore, the Department has agreed to IRRC's request and has further amended this section to set forth the relevant requirements relating to portable emergency warning devices. Further, the Department has recommended in this section that other vehicles subject to this chapter use portable warning devices as well.

Additional Modifications to the Proposed Rulemaking

The text of these final-form regulations contains modifications, deletions and additions, none of which enlarges the scope of these amendments as originally proposed, and thus, may be published as final rulemaking. The following represents a summary of the changes:

(1) Section 171.1(b) has been amended to make these amendments effective upon the date of publication. These amendments were originally proposed to become effective September 1, 1996. However, realizing that circumstances may arise that might delay the adoption of these amendments the Department has heeded the recommendation of IRRC and amended this section so that these amendments become effective upon the date of publication. This section has been further amended to clarify that §§ 171.55(b) and 171.124(b) (relating to identification) will not become effective until September 15, 1997. The Department believes the additional year will provide affected vehicle owners and operators with enough time to affix the necessary identification emblems to their vehicles.

(2) Section 171.2 has been further amended for clarification purposes by adding a definition for the term "designated seating position." The definition for this term mirrors the definition in 49 CFR 571.3 and will help in determining the amount of seating available on vehicles other than school buses. This definition was added to address the concerns of IRRC, who requested clarification on how "adequate" seating is determined. Further, the definition of the term "specially equipped school bus" has been further amended by deleting the phrase "special education." By deleting this phrase, the Department hopes to clarify that specially equipped school buses are used to transport students who require or utilize special equipment. This amendment is the result of comments received by IRRC, which suggested that this definition should focus on the needs of the student, and not on the type of student being transported. Moreover, the definition of the term "special education (exceptional) children" has been deleted since this term was only used in § 171.91. The Department has instead deleted the term "special education (exceptional) children" from § 171.91 and replaced it with the phrase "students with disabilities" to clarify that specially equipped school buses are used to transport students with any disability. Finally,

the definitions of the terms "bus," "GVWR," "school bus" and "school vehicle" have been further amended by including the complete definition as set forth in the Vehicle Code. This amendment is the result of discussion with IRRC, which pointed out that the inclusion of the complete definitions will eliminate the need of affected persons to look to another reference source to find out the meaning of these key terms.

(3) Section 171.21(a) has been further amended for clarification purposes by adding the phrase "with clamps and hangers of a type and installed as recommended by the chassis manufacturer." The Department believes this clarification will eliminate confusion of affected person, and promote the safety of school bus occupants and the motoring public. This clarification is the result of comments to the Department requesting explanation of the phrase "securely attached."

(4) Section 171.31(b)(4) has been further amended to correct a typographical error by deleting the word "training" and replacing it with the word "rating." IRRC brought this inadvertent printing error to the Department's attention. Therefore, the Department has amended this section to avoid confusion.

(5) Section 171.36(8) (relating to tires and rims) has been further amended to correct an inadvertent typographical error that occurred at publication by deleting the word "retreated" and replacing it with the word "retreaded." The Department believes that this amendment will alleviate any confusion that may have been caused by this oversight.

(6) Section 171.45 has been further amended by replacing the word "alteration" with the word "manufacture." The word "alteration" was unintentionally included in the notice of proposed rulemaking, published at 25 Pa.B. 5589. This amendment will alleviate any confusion caused by this mistake as well as ensure the Department's compliance with section 4103(e) of the Vehicle Code (relating to promulgation of vehicle equipment standards). Section 4103(e) of the Vehicle Code prohibits the Department from extending vehicle equipment standards to vehicles which, because of their date of manufacture, are not required by Federal standards to have the equipment.

(7) Section 171.47(3) has been further amended to clarify that only school buses that are equipped with reflective material, other than that required under §§ 171.50 and 171.59, shall be equipped as specified under this paragraph. Commentators believed the proposed language for this paragraph would be in contradiction of the Department's intent that reflective material, other than that addressed in §§ 171.50 and 171.59, is optional equipment as expressed in the preamble of the notice of proposed rulemaking. The Department believes this amendment more clearly indicates the additional reflective materials are not required, but if used, the reflective material shall be applied consistent with this paragraph.

The Department has further amended this paragraph by reducing the allowable reflective material widths from 6 inches to 12 inches to 1 3/4 inches to 4 inches. A commentator recommended that the installation of thinner strips of reflective material provide excellent side visibility and yet are less prone to peel off or be damaged in collisions. The Department believes this amendment will reduce costs to school bus owners and operators wishing to affix the additional reflective material to their school buses, yet will not compromise safety by diminish-

ing a school bus' visibility in fog or inclement weather. The Department further believes school bus owners and operators will be more willing to equip their school buses with the thinner, less expensive strips of reflective material, thereby enhancing school bus visibility and child safety. For consistency purposes, Figure 3 has also been amended to reflect this change.

(8) Sections 171.51 and 171.52 have been further amended to require fire extinguishers and first aid kits to be mounted as directed by the item's manufacturer. This amendment is the result of comments received from IRRC, the Elwyn Institute and HMS School, all of whom requested clarification as to how these items were to be mounted in school buses.

(9) Sections 171.56 and 171.58 have been further amended by adding language to address interior air-conditioning units. The PSBA and school bus owners and operators requested that the Department consider adding language to this chapter concerning the installation of air conditioners in school buses. There have been instances when school buses have failed a school bus safety inspection because an installed after-market air-conditioning unit interfered with Federal safety standards. After several meetings with the various interested parties, the Department has amended § 171.56 to allow the inside body height to be measured from the rear vertical bow or the rear interior ceiling mounted air-conditioning unit. Moreover, § 171.58 has been further amended by adding a new paragraph (6) and subparagraphs (i)—(iii) to address air-conditioning units. Subparagraph (i) requires after-market air-conditioning units to be labeled certifying that the vehicle, as altered, conforms to all Federal motor vehicle safety standards affected by the alteration and in effect at the time of manufacture. Subparagraph (ii) requires interior ceiling-mounted air-conditioning units mounted within the head protection zone or at the rear of the bus to be padded with materials meeting FMVSS. Finally, subparagraph (iii) clarifies that air-conditioning units may be installed in other locations. The Department believes these amendments will provide guidance for installing air-conditioning units and for inspectors when conducting school bus safety inspections.

(10) Section 171.68(b) has been further amended to correct a typographical error by deleting the word "and" and replacing it with the word "or." The Elwyn Institute and HMS School requested clarification of "all other designated seating positions shall have a Type 1 and Type 2 seat belt assembly," specifically how Type 2 seat belts would be mounted for mid row or aisle passenger seats. By replacing the word "and" with the more appropriate preposition "or" the Department believes this amendment will clarify that either a Type 1 or Type 2 seat belt assembly may be used. Since Type 2 seat belts cannot be used for mid-row or aisle seats because there exists no location on which to secure the upper torso restraint, Type 1 seat belts would be used at these seating positions.

(11) Section 171.69 has been further amended by amending paragraph (4) to clarify the types of seats to be used on school buses. Several commentators expressed concern about specific types of seats and child seats that may be used on school buses. The Department has amended this paragraph by clearly stating that seats that are not designed to meet FMVSS No. 222 are prohibited. Since FMVSS No. 222 sets forth manufacture standards for all school bus seats, including school bus seat and seat component size and performance requirements, the Department believes this clarification will alleviate the need

to list the types of seats allowed on school buses. Further, language setting forth the types of seats exempt from this paragraph has been further amended by clarifying that integrated child restraint seats must comply with FMVSS No. 213 (relating to child restraint systems). Moreover, this paragraph has been amended to further clarify that, before they are exempted from this paragraph, child safety seats must comply with FMVSS No. 213 and must be used as designated by the manufacture. FMVSS No. 213 sets forth the manufacture requirements for restraint systems designed for use in aircraft and motor vehicles, and school buses fall into the latter category. The Department believes this amendment clarifies the types of seats and child seats that are permitted for use on school buses. Finally, paragraph (9) was further amended for clarification purposes by deleting the term "securely mounted" and replacing it with the word "installed." Several commentators expressed concern as to what was meant by "securely mounted." The Department has amended this paragraph to clarify that seats are to be installed so as to prevent seats from disengaging from the seat frame under extraordinary operating conditions. Since school bus manufacturers shall install school bus seats under FMVSS No. 222, and § 171.84 requires equipment added to a school bus after its manufacture to meet applicable Federal standards, the Department believes this amendment addresses the commentators concerns.

(12) Section 171.93(1) was further amended for clarification purposes by deleting the phrase "of the type that require human intervention to unlatch or discharge" and replacing it with the term "the securement devices shall be installed and used as designated by the manufacturer." One commentator suggested that the term "of the type that require human intervention to unlatch or discharge" be changed to allow for emerging technology that produces the same outcome without human involvement. The Department believes the amended language "the securement devices shall be installed and used as designated by the manufacturer" will allow, as suggested, for any emerging securement device technology.

(13) Section 171.96(a) was further amended for clarification by deleting the phrase "are confined to wheelchairs" and replacing it with the word "utilize." Elwyn Institute and HMS School requested that the Department revise this subsection in this manner so as to include students who are not confined to wheelchairs but use them periodically. The Department is in agreement with the commentators' reasoning and appreciates them bringing this to its attention.

(14) Section 171.99 (relating to restraining devices) was further amended to clarify the types of belt restraint systems to be used on seat frames and seats. The AAP and HMS School requested that the Department be more specific concerning the attachments or devices to which belts, restraining harnesses or other devices may be attached to school bus seats. The Department has amended this section by clearly stating that belt restraint systems must be designed and installed in accordance with FMVSS Nos. 209 and 213, and used as designated by the manufacturer. The Department has further amended this section to require that the attachment framework and anchorage devices are to conform to FMVSS No. 210 (relating to seat belt assembly anchorages). The Department believes this clarification will eliminate confusion as to what types of restraint systems may be used and how they are to be attached to the seat or seat frame.

(15) Section 171.105 (relating to identification) was further amended by replacing the word "shall" with the word "may." This section was originally proposed to require specially equipped school buses to display the universal handicapped symbol on the rear of the vehicle below the window line. The purpose of the proposed requirement was twofold: to alert emergency personnel, in the event of an accident, that a special needs student is on the bus; and to advise motorists, when the loading or unloading of a student takes longer than usual. Although the Department did not receive formal comments on this proposed requirement, several persons have approached the Department requesting that display of the universal handicap symbol be an option instead of a requirement. School personnel were unclear as to when a school bus is considered a specially equipped school bus. Further, parents of students riding specially equipped school buses cited their children's embarrassment in riding a bus labeled in this manner, since the universal handicapped symbol draws unwanted attention to their children.

Specially equipped school buses, as defined in § 171.2, are school buses used to transport students, and are equipped with special equipment as set forth in Subchapter D. Therefore, any school bus equipped with any of the equipment listed in Subchapter D is considered a specially equipped school bus. After reviewing this section, however, the Department believes there may be instances where the display of the universal handicapped symbol would be unnecessary. One instance would be where the only special equipment on the school bus is a restraining device used for a student with behavioral problems. Another instance would be if, on a particular day, the school bus is not transporting children with special needs and the school bus is involved in an accident. Emergency personnel will mistakenly believe that someone on the school bus is in need of special medical attention when that is not the case. For these reasons, the Department has amended this section to allow specially equipped school bus owners and operators to decide whether a specially equipped school bus should display the universal handicapped symbol.

(16) Section 171.101 was further amended for clarification purposes by deleting the sentence, "Flexibility in seat spacing to accommodate special devices shall be permitted." The Department believes the remaining sentence, "Seats shall be forward-facing," makes it clear that seating in specially equipped school buses must be forward-facing, including other seating such as wheelchairs. This amendment is in response to commentator concerns about flexible seating possibly compromising Federal seating requirements. The deletion of the ambiguous language will not inhibit flexible seating; instead the Department believes the deletion will clarify that whatever type of seating is used in a specially equipped school bus, that seating shall be forward-facing. This was the original intent of the Department.

(17) Section 171.122 was further amended for accuracy by deleting the reference to § 171.21 and replacing it with § 171.21. The Department has amended this section to correct a typographical error which occurred at publication. The Department believes that this amendment will alleviate any confusion that may have been caused by this oversight.

(18) Sections 171.125(c) and 171.139 was further amended to clarify that a designated seating position must be available for each passenger. This amendment is in response to a comment from IRRC requesting the Department explain how "adequate" seating is deter-

mined. The Department believes that this amendment, and the inclusion of the definition of the term "designated seating position" at § 171.2, will allow affected persons to determine the amount of seating available on these vehicles and insure that a designated seating position is available for each passenger.

(19) Section 171.147 was further amended to clarify that the owners of vehicles subject to this chapter must have the fire extinguishers on their vehicles inspected at least once every year. This amendment is the result of discussion with IRRC, who requested the Department identify the approving agency and party. The Department believes this amendment will make it clear that it is the vehicle owner's responsibility to ensure that fire extinguishers are inspected and approved at least once a year. Requiring this inspection and approval will help ensure that fire extinguishers on vehicles transporting school children are functioning properly, and at their full effectiveness, in case of a fire.

(20) Section 171.150 (relating to use of portable emergency warning devices) was further amended to clarify which vehicles are required to have portable warning devices. At the request of IRRC, the Department has set forth the relevant requirements relating to portable emergency warning devices as prescribed in section 4530(b) of the Vehicle Code.

(21) Appendix A has been further amended by including additional references to the *Code of Federal Regulations* so that affected persons are aware of what the citation in the regulation refers to and where they may obtain a copy of the material. Specifically, references to 49 CFR 393, 396, 567.7 and 581 have been added since these sections are referred to in these amendments. Further, the reference to 49 CFR 579 has been deleted and replaced with 49 CFR 569 since the Department inadvertently assigned the information relating to regrooved tires to the incorrect section. Finally, a reference to SAE Standard J1100, *Motor Vehicle Dimension*, has been added since this standard is referred to in these amendments.

Purpose of this Chapter

The purpose of this chapter is to promulgate equipment, operation and safety standards for school buses and other vehicles used for transporting school children.

Purpose of these Amendments

The purpose of these amendments is to amend the existing provisions of Chapter 171 governing the manufacture, conversion, maintenance and operation of school buses, specially equipped school buses and other vehicles used for pupil transportation. With the enactment of the National Traffic and Motor Vehicle Safety Act of 1966 (49 U.S.C.A. §§ 30101—30169) (original version at 15 U.S.C.A. §§ 1381—1481), the Federal government was given responsibility for developing and promulgating motor vehicle safety standards applicable to school buses manufactured and sold in all the states. Section 4103(b) of the Vehicle Code provides that promulgated Federal standards have the same force and effect as if promulgated by the Department and supersede any Commonwealth standard applicable to the same aspect of performance for a vehicle or item of equipment. Adoption of these amendments, therefore, will bring Department regulations into conformance with Federal safety standards, thereby eliminating conflicting standards and alleviating potential confusion wherever possible.

Further, these amendments will incorporate recommendations of the Tenth, Eleventh and Twelfth National

Conference on School Transportation, held in 1985, 1990 and 1995, respectively. The National Conference on School Transportation was established in 1939 to encourage states to meet and discuss safety features and guidelines for school buses. The conference committee submits recommendations to the National Highway Administration, some of which have had a vital role in the development of Federal school bus equipment standards. These conferences are held every 5 years and are attended by official representatives of states' Departments of Education, local school district personnel, contract operators, advisors from industry and other interested professional organizations and groups.

Moreover, on August 7, 1995, the Department met with the PSBA, the Department of Education and representatives from Pennsylvania school districts to give them the opportunity to express their interest, concerns and requests regarding the installation of interior mounted air-conditioning units in school buses and the use of child safety seats on school buses. The Department also received correspondence from Trans/Air Manufacturing, Inc., expressing its interest in air-conditioning units. The Department agreed to review the information provided and add in this chapter language addressing interior ceiling mounted air-conditioning units. The Department also agreed that, since child safety seats have not yet been manufactured specifically for school buses, it would amend § 171.69(4) to clarify that child safety seats may be used if they comply with FMVSS No. 213.

Moreover, the Department has spoken on several occasions with the HMS School and AAP concerning the transportation of school students with special needs. On February 29, 1996, the Department met with the Elwyn Institute, HMS School, AAP, PSBA, Department of Education and other interested persons and organizations to discuss their concerns regarding the transportation of school students with special needs. This meeting was the first meeting of the Transporting Students with Special Needs Task Force. During the course of the meeting, the task force agreed that, although the purpose of this chapter is not to establish the special care, special handling or special training required for the transportation of school students with special needs, the Department would continue working with the task force to provide information and direction when needed. The task force met again on May 7, 1996, when it was agreed that the Department would provide administrative support for future meetings, but facilitation of the meetings would be the responsibility of other task force members. This decision was made since many of the goals to be achieved by the task force are not within the Department's authority to implement.

Persons or Entities Affected

These amendments affect manufacturers of school bus chassis, bodies and other components, persons and entities who sell, own, operate or maintain school buses and school vehicles, and the children who are transported in these vehicles.

Fiscal Impact

These amendments may indirectly impose minimal costs on State and local governments and private entities. Additional costs that may be incurred would be for newly authorized equipment, the removal or replacement of nonconforming equipment and required lettering or other identification on vehicles subject to this chapter. These amendments will not require the completion of additional forms, reports or other paperwork.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), the Department, on June 30, 1994, submitted a copy of the notice of proposed rulemaking published at 25 Pa. B. 5589 to IRRC and to the Chairpersons of the House Transportation Committee and the Senate Transportation Committee for review and comment. In compliance with section 5(b.1) of the Regulatory Review Act, the Department also provided IRRC and the Committees with copies of the comments received, as well as other documentation.

In preparing these final-form regulations, the Department has considered the comments received from IRRC, the Committees and the public.

These final-form regulations were deemed approved by the House Committee on August 19, 1996, and deemed approved by the Senate Committee on August 19, 1996. IRRC met on August 22, 1996, and approved these final-form regulations in accordance with section 5(c) of the Regulatory Review Act.

Sunset Provisions

The Department is not establishing a sunset date for these regulations, since these regulations are needed to administer provisions required under the Vehicle Code. The Department, however, will continue to monitor these regulations for their effectiveness.

Contact Person

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Authority

The amendments are adopted under the authority contained in sections 4103, 4551—4553 and 6103 of the Vehicle Code as further amended by the act of July 10, 1984 (P. L. 679, No. 146), the act of December 19, 1988 (P. L. 1290, No. 163) and the act of March 13, 1990 (P. L. 69, No. 14). The statutory provisions, respectively, direct the Department to promulgate vehicle equipment standards for vehicles, equipment and devices required under Part IV of the Vehicle Code (relating to vehicle characteristics); promulgate regulations governing the safe design, construction, equipment and operation of vehicles engaged in the transportation of school children; set forth the general requirements for school buses; prescribe general requirements for other vehicles transporting school children; and authorize the Department to promulgate regulations to implement the Vehicle Code.

Findings

The Department finds that:

(1) Public notice of intention to amend the administrative regulations amended by this order has been given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202), and the regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) The amendment of the regulations of the Department in the manner provided in this order is necessary and appropriate for the administration and enforcement of the authorizing statutes.

Order

The Department, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 67 Pa. Code Chapter 171, are amended by:

(1) Amending §§ 171.12, 171.14—171.16, 171.18—171.20, 171.22—171.24, 171.26—171.28, 171.34, 171.35, 171.37, 171.42, 171.44, 171.49, 171.50, 171.54, 171.55, 171.57, 171.59, 171.61, 171.70, 171.72, 171.73, 171.76, 171.77, 171.92, 171.97, 171.98, 171.104, 171.121, 171.124, 171.141, 171.143 and 171.144; by deleting § 171.74; and by adding §§ 171.82—171.84, 171.106, 171.137, 171.138, 171.146, 171.148 and 171.149 to read as set forth at 25 Pa.B. 5589 (December 9, 1995).

(2) Amending §§ 171.1, 171.2, 171.21, 171.31, 171.36, 171.45, 171.47, 171.51, 171.52, 171.56, 171.58, 171.68, 171.69, 171.91, 171.93, 171.96, 171.99, 171.101, 171.122, 171.123, 171.125, 171.132, 171.133 and Appendix A and adding §§ 171.105, 171.139, 171.147 and 171.150 to read as set forth in Annex A.

(b) The Secretary of the Department shall submit this order, Annex A and 25 Pa.B. 5589 to the Office of Attorney General and the Office of General Counsel for approval as to legality as required by law.

(c) The Secretary of the Department shall certify this order, Annex A and 25 Pa.B. 5589 and deposit them with the Legislative Reference Bureau as required by law.

(d) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*, except that §§ 171.55(b) and 171.124(b) become effective September 15, 1997.

BRADLEY L. MALLORY,
Secretary

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission relating to this document, see 26 Pa.B. 4371 (September 7, 1996).)

Fiscal Note: Fiscal Note 18-324 remains valid for the final adoption of the subject regulations.

Annex A

TITLE 67. TRANSPORTATION

PART I. DEPARTMENT OF TRANSPORTATION

Subpart A. VEHICLE CODE PROVISIONS

ARTICLE VII. VEHICLE CHARACTERISTICS

CHAPTER 171. SCHOOL BUSES AND SCHOOL VEHICLES

Subchapter A. GENERAL PROVISIONS

§ 171.1. Applicability.

(a) *Scope.* This chapter applies to equipment and safety requirements for school buses as provided for in 75 Pa.C.S. § 4552 (relating to general requirements for school buses) and for other vehicles transporting school children as provided for in 75 Pa.C.S. § 4553 (relating to general requirements for other vehicles transporting school children).

(b) *Effective date.* This chapter is effective September 14, 1996, except that §§ 171.55(b) and 171.124(b) (relating to identification) are effective September 15, 1997. School buses manufactured or converted prior to September 14, 1996, shall comply with the regulations in effect at the time they were manufactured or converted, except that Subchapter G (relating to operation standards for

vehicles subject to this chapter) applies to vehicles subject to this chapter regardless of the date of manufacture or conversion.

(c) *FMVSS.* Vehicles manufactured as school buses are required to comply with FMVSS as established by the National Highway Traffic Safety Administration (NHTSA) at 49 CFR 571 (relating to Federal Motor Vehicle Safety Standards).

(d) *Federal Motor Carrier Safety Regulations.* Vehicles manufactured as school buses and operating in interstate commerce are required to comply with Federal Motor Carrier Safety Regulations as established by the Federal Highway Administration (FHWA) at 49 CFR Parts 393 and 396 (relating to parts and accessories necessary for safe operation; and inspection, repair and maintenance). See Appendix A.

§ 171.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Bus—A motor vehicle designed to transport 16 or more passengers, including the driver; or a motor vehicle, other than a taxicab or limousine, designed to transport not more than 15 passengers, including the driver, and used for the transportation of persons for compensation. The term does not include a vehicle used in a ridesharing arrangement, as defined in the act of December 14, 1982 (P. L. 1211, No. 279) (55 P. S. §§ 695.1—695.9), which provides for ridesharing arrangements and provides that certain laws are inapplicable to ridesharing arrangements, or a school bus.

Converted school bus—A vehicle not originally manufactured to be a school bus.

Convex mirror—A mirror having a curved reflective surface whose shape is the same as that of the exterior surface of a section of a sphere.

Department—The Department of Transportation of the Commonwealth.

Designated seating position—Under 49 CFR 571.3 (relating to definitions), a plain view location capable of accommodating a person at least as large as a 5th percentile adult female, if the overall seat configuration and vehicle design is of a type that the position is likely to be used as a seating position while the vehicle is in motion, except for auxiliary seating accommodations such as temporary or folding jump seats. A bench or split bench seat in a passenger car, truck or multipurpose passenger vehicle with a GVWR less than 10,000 pounds, having greater than 50 inches of hip room (measured in accordance with SAE Standard J1100(a)—See Appendix A) may not have less than three designated seating positions, unless the seat design or vehicle design is of a type that the center position cannot be used for seating.

FMVSS—Federal Motor Vehicle Safety Standards published in the *Code of Federal Regulations*.

Forward control—A configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub is in the forward quarter of the vehicle length.

GVWR—*Gross vehicle weight rating*—The value specified on the Federal weight certification label by the manufacturer as the loaded weight of a single vehicle.

Mass transit pupil transportation bus—A bus, other than a school bus, that is operated by an urban mass transportation system and used exclusively for the trans-

portation of children to and from school and school-related activities, even if used for other transportation purposes at other times.

Pupil Transportation Section—The Pupil Transportation Section of the Bureau of Driver Licensing of the Department.

SAE—The Society of Automotive Engineers.

School bus—A motor vehicle designed to carry 11 passengers or more, including the driver, and used for the transportation of preprimary, primary or secondary school students to or from public, private or parochial schools or events related to these schools or school-related activities. The term does not include a motor vehicle used to transport preprimary, primary or secondary school students to or from public, private or parochial schools or events related to these schools or school-related activities, designed to carry 11 to 15 passengers, including the driver, and registered in this Commonwealth as a bus prior to March 1, 1993; or a motor vehicle designed to carry 11 to 15 passengers, including the driver, and titled to a public, private or parochial school on or before March 1, 1993, and registered to that public, private or parochial school in this Commonwealth as a bus prior to September 15, 1993. The types of school buses are as follows:

(i) *Type A school bus*. A school bus converted from or having a body constructed upon a van-type truck or front-section vehicle chassis, with a gross vehicle weight rating of 10,000 pounds or less.

(ii) *Type B school bus*. A school bus converted from or having a body constructed and installed upon a van-type truck, front-section vehicle chassis or stripped chassis, with a gross vehicle weight rating of more than 10,000 pounds. In this type of school bus, part of the engine is beneath or behind the windshield and beside the driver's seat; and the entrance door is behind the front wheel.

(iii) *Type C school bus*. A school bus having a body installed upon a flat back cowl chassis with a gross vehicle weight rating of more than 10,000 pounds. In this type of school bus, the engine is in front of the windshield and the entrance door is behind the front wheels.

(iv) *Type D school bus*. A school bus having a body installed upon a chassis, with the engine mounted in the front, midship or rear, with a gross vehicle weight rating of more than 10,000 pounds. The engine may be behind the windshield and beside the driver's seat; it may be at the rear of the bus, behind the rear wheels or midship between the front and rear axles; and the entrance door is ahead of the front wheels.

School vehicle—A motor vehicle, except a motorcycle, designed for carrying no more than ten passengers, including the driver, and used for the transportation of preprimary, primary or secondary school students while registered by or under contract to a school district or private or parochial school. The term includes vehicles having chartered, group and party rights under the Pennsylvania Public Utility Commission and used for the transportation of school children.

Specially equipped school bus—A school bus used to transport children which, in addition to meeting the requirements for school buses as described in this chapter, contains special equipment as required in Subchapter D (relating to specially equipped school bus standards).

Stop signal arm—A device that can be extended outward from the side of the school bus to provide a signal to other motorists not to pass because the bus has stopped to load and discharge passengers.

Type 2 seat belt assembly—A combination of pelvic and upper torso restraints.

Unit magnification mirror—A plane or flat mirror with a reflective surface through which the angular height and width of the image of an object is equal to the angular height and width of the object when viewed directly at the same distance except for flaws that do not exceed normal manufacturing tolerances.

Upper torso restraint—A portion of a seatbelt assembly intended to restrain movement of the chest and shoulder regions.

Subchapter B. SCHOOL BUS CHASSIS STANDARDS

§ 171.21. Exhaust system.

(a) *General rule*. The exhaust pipe, muffler and tailpipe shall be outside the body compartment and securely attached to the chassis with clamps and hangers of a type and installed as recommended by the chassis manufacturer.

(b) *Tailpipe*. The tailpipe shall be constructed of a corrosion-resistant tubing material at least equal in strength and durability to 16 gauge steel tubing.

(c) *Tailpipe extension*. The exhaust system of a school bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the school bus; however, until June 15, 1998, the tailpipe may extend to, but not beyond the body limits on the left side of the school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.

(d) *Tailpipe extension for school buses using fuels other than gasoline*. The exhaust system of a school bus using fuels other than gasoline shall discharge to the atmosphere either at or within 15 inches forward of the rearmost part of the vehicle; or to the rear of all doors or windows designed to be opened, except windows designed to be opened solely as emergency exits. Until June 15, 1998, the tailpipe may extend to, but not beyond the body limits on the left side of the school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.

(e) *Insulation*. The exhaust system on a gasoline powered chassis shall be properly insulated from fuel tank connections by a securely attached metal shield at any point where it is 12 inches or less from the tank or tank connections.

(f) *Muffler*. The muffler shall be constructed of corrosion resistant material.

(g) *Discharge lines and outlets*. The discharge lines and outlets on school buses equipped with compressed or liquefied gas fuel systems shall be installed in accordance with Chapter 175 (relating to vehicle equipment and inspection).

(h) *Exhaust system hangers*. Exhaust systems may be equipped with hangers that permit required movement due to expansion and contraction caused by heat of the exhaust and relative motion between the engine and chassis of a vehicle.

(i) *Exhaust system discharge location*. Exhaust systems are not permitted to discharge to the atmosphere at a location immediately below the fuel tank or the fuel tank filler pipe.

§ 171.31. Passenger's load.

(a) *Gross vehicle weight.* Actual gross vehicle weight is the vehicle weight, plus the driver's weight, plus the total seated pupil weight.

(1) For purposes of calculation, the driver's weight is 150 pounds.

(2) For purposes of calculation, the pupil weight is 120 pounds per pupil.

(b) *Weight limitations.* The following weight limitations apply:

(1) *Gross weight.* The actual gross weight of the vehicle may not exceed the manufacturer's GVWR for the chassis.

(2) *Axle weights.* A bus may not be operated upon a highway with a weight on an axle in excess of the lesser of the manufacturer's rated axle capacity or 22,400 pounds—20,000 pounds on interstate highways—on a single axle or 18,000 pounds on a dual axle.

(3) *Wheel weights.* A bus may not be operated upon a highway with a weight upon a wheel in excess of 800 pounds for each nominal inch of width of tire on the wheel.

(4) *Gross vehicle weight rating.* A bus may not be operated upon a highway with weight exceeding the value specified on the Federal weight certification label by the manufacturer as the loaded weight of a single vehicle.

§ 171.36. Tires and rims.

The requirements for the tires and rims of a school bus are as follows:

(1) School buses shall be equipped with tires and rims which conform to the vehicle chassis manufacturer's specifications as to tire size, in that the tires and rims are not smaller than those that have been recommended by the chassis manufacturer. Tires and rims shall meet the requirements of FMVSS Nos. 119 and 120. See Appendix A.

(2) Dual rear tires shall be provided on Type B, Type C and Type D school buses.

(3) Tires on the same axle shall be of the same size and type of construction—bias, belted or radial. Type A school bus tires shall be of same size and type of construction on all axles.

(4) If the vehicle is equipped with a spare tire and rim assembly for emergency use, it shall be of the same size as those mounted on the vehicle.

(5) Tube type tires and tubeless equivalent tires shall be provided on dual wheel vehicles.

(6) When tires are replaced, they shall be of a quality equivalent to the original equipment.

(7) Radial type tires at least equivalent in strength and size to the bias construction tire specified may be substituted; however, no mixing of radial type and bias construction type tires may be permitted on the same axle.

(8) Regrooved, recapped or retreaded tires shall comply with the following:

(i) Regrooved, recapped or retreaded tires may not be used on front wheels or on single rear wheels.

(ii) Regrooved tires shall comply with safety standards certified by the tire manufacturer as meeting 49 CFR 569 (relating to regrooved tires)—see Appendix A—and shall be stamped as "Regroovable."

(iii) Recapped or retreaded tires shall comply with FMVSS No. 117. See Appendix A.

(iv) Regroovable tires may be retreaded, recapped or regrooved.

(9) No tire may be used which is in an unsafe condition. Tread depth on tires may at no time be less than 4/32 of an inch on the front and 2/32 of an inch on the rear as measured on two adjacent treads by an acceptable gauge such as the Dill, or its equivalent.

(10) A spare tire, if used, shall be suitably mounted in an accessible location outside the passenger compartment. Types A and B school buses need not comply with this paragraph.

Subchapter C. SCHOOL BUS BODY STANDARDS

§ 171.45. Certification.

School buses manufactured or converted after January 1, 1978, shall bear a certification label from the final stage manufacturer stating that the completed school bus conforms to applicable FMVSS in effect at the time of manufacture. Persons or entities may not alter a previously certified school bus in a way that does not conform to applicable FMVSS in effect at the time of manufacture.

§ 171.47. Color.

The requirements for the color of school bus bodies are as follows:

(1) The school bus body shall be painted a uniform National School Bus Yellow. See Appendix B.

(2) The body exterior trim may be painted black. The bumper and exterior mirrors shall be painted black.

(3) If a school bus is equipped with reflective material, other than that required under §§ 171.50 and 171.59 (relating to doors and emergency exits; and lamps and signals), the reflective material shall be of automotive engineering grade or better. If additional reflective materials and markings are used, they shall be applied as follows:

(i) The front or rear bumpers, or both, shall be marked diagonally 45° down to the centerline of pavement with strips of noncontrasting reflective material 2 inches wide. See Figure 1.

(ii) The rear of the school bus body shall be marked with a strip of reflective National School Bus Yellow material no greater than 2 inches in width applied to the back of the school bus, extending from the the lower-left corner of the "SCHOOL BUS" lettering, across to the left side of the school bus, then vertically down to the top of the bumper, across the school bus on a line immediately above the bumper to the right side, then vertically up to a point even with the strip placement on the left side, and concluding with a horizontal strip terminating at the lower-right corner of the "SCHOOL BUS" lettering. See Figure 2.

(iii) "SCHOOL BUS" signs shall be marked with reflective National School Bus Yellow material comprising background for lettering of the front or rear, or both, "SCHOOL BUS" signs. See Figures 1 and 2.

(iv) The sides of the school bus body shall be marked with reflective National School Bus Yellow material at least 1 3/4 inches, but not more than 4 inches, in width, extending the length of the school bus body and located—vertically—as close as practicable to the beltline. See Figure 3.

(v) Reflective material shall be of a color coinciding with Figures 1—3.

PLACEMENT OF REFLECTIVE MARKINGS

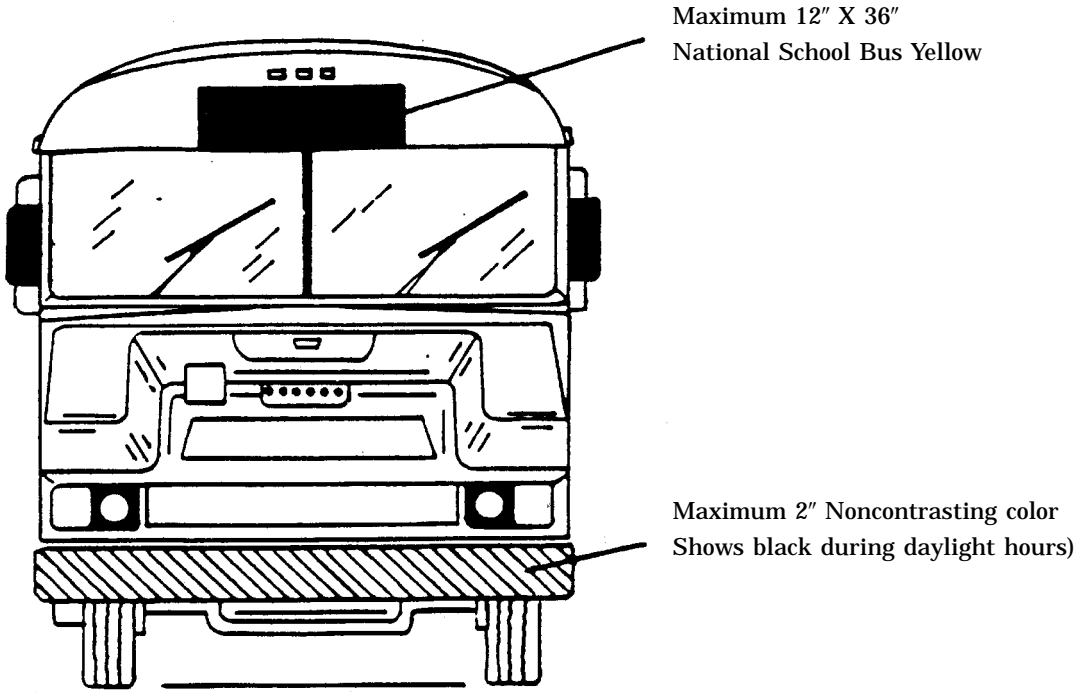


FIGURE 1

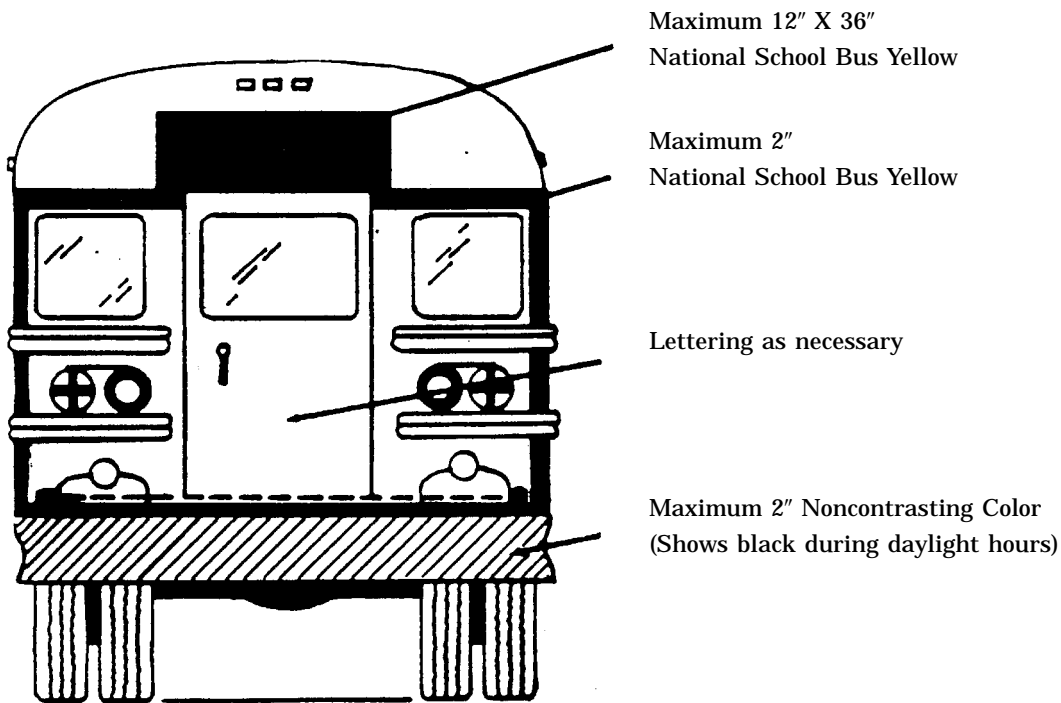
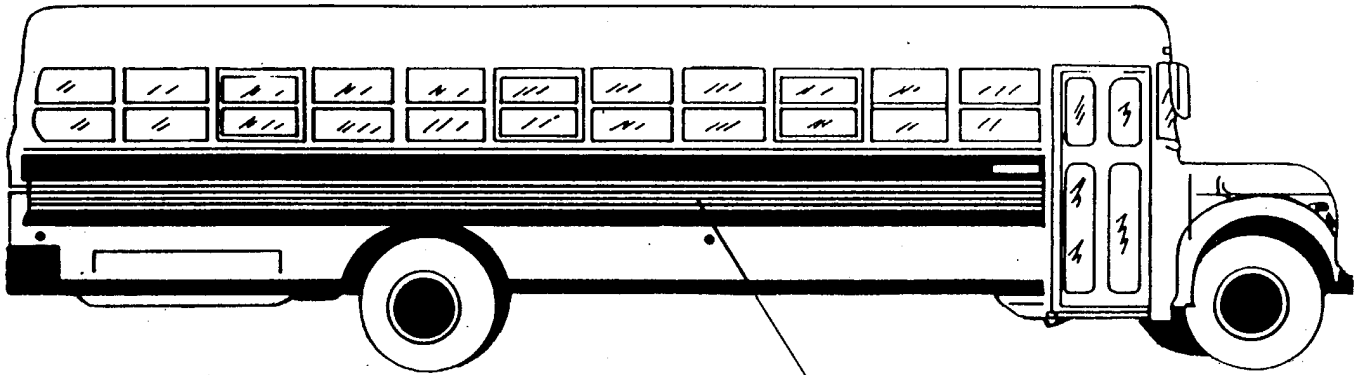


FIGURE 2



1 3/4"–4" Width
National School Bus Yellow

FIGURE 3

§ 171.51. Fire extinguisher.

(a) *Required.* Every school bus shall be equipped with at least one pressurized, multipurpose, dry chemical or halogenated agent fire extinguisher, mounted in a bracket in the driver's compartment and readily accessible to the driver. The fire extinguisher shall be mounted as directed by the manufacturer. The fire extinguisher shall have a hose and nozzle and be in good and usable condition. A pressure gauge shall be mounted on the extinguisher so as to be easily read without removing the extinguisher from its mounted position.

(b) *Type.* The fire extinguisher shall be of a type meeting the Underwriters Laboratories, Inc. Standard 299 or 1093—see Appendix A—with a total rating of not less than 2 A-10 BC. The operating mechanism shall be sealed with a type of seal which may not interfere with the use of the fire extinguisher.

§ 171.52. First aid.

(a) *First aid kit.* Every school bus shall have a removable moisture and dustproof first aid kit, mounted in an accessible place within the driver's compartment. The first aid kit shall be mounted as directed by the manufacturer. The first aid kit shall be labeled and visible to the driver or its location shall be marked.

(b) *Content.* The first aid kit shall contain, at a minimum, the following items:

- (1) Two 1 inch x 2-1/2 yards adhesive tape rolls.
- (2) Twenty-four sterile gauze pads, 3 inches x 3 inches.
- (3) One hundred 3/4 inch x 3 inches adhesive bandages.
- (4) Twelve 2 inch bandage compresses.
- (5) Twelve 3 inch bandage compresses.
- (6) Two 2 inches x 6 yards sterile gauze roller bandages.
- (7) Two nonsterile triangular bandages approximately 40 inches x 36 inches x 54 inches with 2 safety pins.
- (8) Three sterile gauze pads, 36 inches x 36 inches.
- (9) Three sterile eye pads.

- (10) One pair rounded end scissors.
- (11) One pair latex gloves.
- (12) One mouth barrier.

(c) *Body fluid clean-up kit.* Every school bus shall have a removable and moisture proof body fluid clean-up kit. It shall be securely placed or mounted in an easily accessible location and labeled as a body fluid clean-up kit.

§ 171.56. Inside height.

Inside body height of a school bus shall be 72 inches or more, measured metal to metal, at all points on the longitudinal centerline from the front vertical bow to the rear vertical bow or to the rear interior ceiling mounted air-conditioning unit. Inside body height of Type A school buses shall be 62 inches or more.

§ 171.58. Interior.

The requirements for the interior of school buses are as follows:

- (1) The interior of every school bus shall be free of unnecessary projections likely to cause injury. This standard requires inner lining on ceilings and walls. If the ceiling is constructed so as to contain lapped joints, the forward panel shall be lapped by the rear panel, and exposed edges shall be beaded, hemmed, flanged or otherwise treated to minimize sharp edges.
- (2) Every school bus shall meet the requirements of FMVSS No. 302, as to the flammability of interior materials. See Appendix A.
- (3) Book racks or luggage racks are not permitted.
- (4) Interior radio/stereo speakers shall be of the flush mounted type. Exposed parts shall be treated to minimize sharp edges.
- (5) The driver's area forward of the foremost padded barriers shall permit the mounting of required safety equipment and vehicle operating equipment.
- (6) The requirements for air-conditioning units are as follows:
 - (i) Persons installing air-conditioning units in school buses after the vehicles' original manufacture date shall affix to the vehicle a label in accordance with 49 CFR

567.7 and 568.8 (relating to requirements for persons who alter certified vehicles). See Appendix A. The label shall contain the statement that the school bus conforms to applicable FMVSS affected by the addition of the air-conditioning unit. This labeling requirement applies to air-conditioning units subject to this subparagraph, regardless of location.

(ii) Interior ceiling-mounted air-conditioning units, mounted above the seats within the head protection zone or at the rear of the bus, shall be padded with materials meeting FMVSS No. 302 to an extent to insure compliance with the head impact test requirements of FMVSS No. 222. See Appendix A.

(iii) This paragraph does not prohibit the installation of air-conditioning units in locations other than those described in subparagraph (ii). Air-conditioning units may be installed in other locations if labeled as described in subparagraph (i).

§ 171.68. Seat belts.

(a) *Seat belt for the driver.* A Type 2 seat belt meeting the requirements of FMVSS Nos. 208 and 209—See Appendix A—shall be provided for the driver. The belt shall be equipped with a retractor on each side of sufficient quality and strength to keep the belt retracted and off the floor when not in use. The belt shall be anchored in accordance to FMVSS No. 210—See Appendix A.

(b) *Seat belts for the driver and all other designated seating positions.* Every school bus with a GVWR of 10,000 pounds or less shall be equipped with an integral Type 2 seat belt assembly at the driver's designated seating position and at the right front passenger's designated seating position, if any. All other designated seating positions shall have a Type 1 or Type 2 seat belt assembly. Seat belt assemblies shall comply with FMVSS Nos. 208, 209 and 210—See Appendix A.

§ 171.69. Seats and crash barriers.

The requirements for seats and crash barriers are as follows:

(1) Seats shall have a minimum seating depth of 15 inches.

(2) A seating space at least 13 inches wide shall be provided for each passenger.

(3) Each seat, seat back cushion and crash barrier shall be covered with a material having at least a 42-ounce finished weight, 54 inches width, and finished vinyl coating of 1.06 broken twill, or other material with equal tensile strength, tear strength, seam strength, adhesion strength, resistance to abrasion, resistance to cold and flex separation. Seat materials shall comply with FMVSS No. 302. See Appendix A.

(4) Seats not designed to meet FMVSS No. 222—See Appendix A—are not permitted. Specially equipped school buses, flip seats which comply with FMVSS No. 217—See Appendix A—and school bus seats designed with an integrated child restraint seat which complies with FMVSS No. 213—See Appendix A—are exempt from this paragraph. Child safety seats which comply with FMVSS No. 213 are also exempt from this paragraph if they are used and secured at all times as designated by the manufacturer.

(5) The backs of all seats of similar size shall be of the same width at the top, of the same height above the floor, and shall slant at the same angle with the floor.

(6) Each school bus passenger seat shall have a minimum seat back height of 24 inches measured from the top of the seat cushion.

(7) The horizontal distance between passenger seats may not be more than 28 inches measured from the front of the seat back cushion forward to the back of the restraining barrier.

(8) Seats shall be forward-facing.

(9) Seats shall be installed in a manner to prevent the seats from disengaging from the seat frame under extraordinary operating conditions. Seats may not have springs protruding and may not have tears greater than 1 inch.

(10) Seats and anchorages shall comply with FMVSS No. 222. See Appendix A.

(11) Each seat leg shall be secured to the floor with at least two bolts, lock washers and nuts.

(12) Seat frames shall be fastened to the seat rail with two bolts, lock washers and nuts.

(13) A padded barrier shall be placed in front of all forward-facing passenger seats that do not have another seat in front of them, as required by FMVSS No. 222. See Appendix A.

Subchapter D. SPECIALLY EQUIPPED SCHOOL BUS STANDARDS

§ 171.91. General requirement.

School buses used for transporting students with disabilities shall comply with Subchapters B, C, G and this subchapter.

§ 171.93. Securement devices and safety restraints.

The requirements for securement devices and safety restraints are as follows:

(1) Each wheelchair or other type of mobility device location shall have devices that secure wheelchairs or other types of mobility devices in a forward-facing position at a minimum of four anchorage points. The securement devices shall be installed and used as designated by the manufacturer.

(2) Three-point safety restraints for lap and upper torso shall be provided for wheelchair and other types of mobility device occupants.

(3) Securement devices and safety restraints shall be designed and installed in compliance with FMVSS No. 222. See Appendix A.

§ 171.96. Power lift.

(a) *General.* A school bus that is used specifically for the transportation of school children who utilize wheelchairs or other types of mobility devices, or who require life support equipment which cannot use the regular service entrance shall be equipped with a power lift. If a power lift system is inadequate to load or unload school children having special or unique needs, a ramp device may be installed.

(b) *Specific requirements.* The requirements for power lifts are as follows:

(1) The power lift shall be located either in the rear or on the right side of the school bus body, but confined within the perimeter of the school bus body when not extended. The power lift may not be attached to the exterior sides of the school bus.

(2) The lifting mechanism shall be able to lift a minimum pay load of 800 pounds. A clear opening and platform to accommodate a 30-inch wide wheelchair shall be provided.

(3) When the platform is in the fully up position, it shall be locked in position mechanically by means other than a support or lug in the door.

(4) Controls shall be provided that enable the operator to activate the lift mechanism from either inside or outside of the school bus. There shall be a means of preventing the lift platform from falling while in operation due to a power failure.

(5) Power lifts shall be equipped so they may be manually operated in the event of a power failure.

(6) The lift travel shall allow the lift platform to rest securely on the ground.

(7) Edges of the platform shall be designed to prevent the wheelchair or other type of mobility device from slipping or rolling off the platform and to prevent the operator's feet from being entangled during the raising and lowering process.

(8) A self-adjusting, skid resistant plate shall be installed on the outer edge of the platform to minimize the incline from the lift platform to the ground level.

(9) A circuit breaker or fuse shall be installed between the power source and the lift motor, if electrical power is used.

(10) The lift mechanism shall be designed to prevent excessive pressure from building in the hydraulic system when the platform reaches the full up or full down position.

§ 171.99. Restraining devices.

Seat frames and seats may be equipped with belt restraint systems designed and installed in accordance with FMVSS Nos. 209 and 213 and used as designated by the manufacturer. Attachment framework and anchorage devices shall conform with FMVSS No. 210—See Appendix A.

§ 171.101. Seating arrangements.

Seating shall be forward-facing.

§ 171.105. Identification.

A specially equipped school bus may display the universal handicapped symbol on the rear of the vehicle below the window line. The emblem shall be white on blue, may not exceed 12 inches in height and width, and shall be of reflective material.

Subchapter E. SCHOOL VEHICLE STANDARDS

§ 171.122. Fire extinguisher.

(a) *Required.* Every school vehicle and every motor vehicle described in § 171.121 (relating to applicability) shall be equipped with at least one pressurized, multipurpose, dry chemical or halogenated agent fire extinguisher, mounted in a bracket readily accessible to the driver. The fire extinguisher shall be mounted as directed by the manufacturer. The fire extinguisher shall have a hose and nozzle and be in good and usable condition. A pressure gauge shall be mounted on the extinguisher so as to be easily read without removing the extinguisher from its mounted position.

(b) *Type.* The fire extinguisher shall be of a type meeting the Underwriter Laboratories, Inc. Standard 299 or 1093—See Appendix A—with a total rating of not less

than 2 A-10 BC. The operating mechanism shall be sealed with a type of seal which will not interfere with the use of the fire extinguisher.

§ 171.123. First aid.

(a) *Required.* Every vehicle shall have a removable moisture and dustproof first aid kit mounted in an accessible place within the driver's compartment. The first aid kit shall be mounted as directed by the manufacturer. The first aid kit shall be labeled and securely placed or mounted in an easily accessible location.

(b) *Content.* The first aid kit shall contain, at a minimum, the following items:

- (1) Two 1 inch x 2 1/2 yards adhesive tape rolls.
- (2) Twenty-four sterile gauze pads, 3 inches x 3 inches.
- (3) One hundred 3/4 inch x 3 inches adhesive bandages.
- (4) Twelve 2 inch bandage compresses.
- (5) Twelve 3 inch bandage compresses.
- (6) Two 2 inches x 6 yards sterile gauze roller bandages.
- (7) Two nonsterile triangular bandages approximately 40 inches x 36 inches x 54 inches with 2 safety pins.
- (8) Three sterile gauze pads, 36 inches x 36 inches.
- (9) Three sterile eye pads.
- (10) One pair rounded end scissors.
- (11) One pair latex gloves.
- (12) One mouth barrier.

(c) *Body fluid clean-up kit.* Every vehicle shall have a removable and moisture proof body fluid clean-up kit. It shall be securely placed or mounted in an easily accessible location and labeled as a body fluid clean-up kit.

§ 171.125. Seating.

(a) *Vehicle seats.* Vehicle seats and seat belts shall be of a type and installed as recommended by the vehicle manufacturer.

(b) *Dividers.* Dividers may not be used to separate the seats.

(c) *Seating space.* A designated seating position of safe design and construction shall be provided for each passenger and a passenger may not be carried for which a safe designated seating position is not available.

Subchapter F. MASS TRANSIT PUPIL TRANSPORTATION BUS STANDARDS

§ 171.132. Fire extinguisher.

(a) *Required.* Every mass transit pupil transportation bus shall be equipped with at least one pressurized, multipurpose, dry chemical or halogenated agent fire extinguisher, mounted in a bracket in the driver's compartment and readily accessible to the driver. The fire extinguisher shall be mounted as directed by the manufacturer. The fire extinguisher shall have a hose and nozzle and be in good and usable condition. A pressure gauge shall be mounted on the extinguisher so as to be easily read without removing the extinguisher from its mounted position.

(b) *Type.* The fire extinguisher shall be of a type meeting the Underwriter Laboratories, Inc. Standard 299 or 1093—See Appendix A—with a total rating of not less

than 2 A-10 BC. The operating mechanism shall be sealed with a type of seal which will not interfere with the use of the fire extinguisher.

§ 171.133. First aid.

(a) *First aid kit.* Every mass transit pupil transportation bus shall have a removable moisture and dustproof first aid kit mounted in an accessible place within the driver's compartment. The first aid kit shall be mounted as directed by the manufacturer. The first aid kit shall be labeled and visible to the driver or its location shall be marked.

(b) *Content.* The first aid kit shall contain, at a minimum, the following items:

- (1) Two 1 inch x 2 1/2 yards adhesive tape rolls.
- (2) Twenty-four sterile gauze pads, 3 inches x 3 inches.
- (3) One hundred 3/4 inch x 3 inches adhesive bandages.
- (4) Twelve 2 inch bandage compresses.
- (5) Twelve 3 inch bandage compresses.
- (6) Two 2 inches x 6 yards sterile gauze roller bandages.
- (7) Two nonsterile triangular bandages approximately 40 inches x 36 inches x 54 inches with 2 safety pins.
- (8) Three sterile gauze pads, 36 inches x 36 inches.
- (9) Three sterile eye pads.
- (10) One pair rounded end scissors.
- (11) One pair latex gloves.
- (12) One mouth barrier.

(c) *Body fluid clean-up kit.* Every mass transit pupil transportation bus shall have a removable and moisture proof body fluid clean-up kit. It shall be securely placed or mounted in an easily accessible location and labeled as a body fluid clean-up kit.

§ 171.139. Seating.

When used as a school bus, a mass transit pupil transportation bus shall provide designated seating positions of safe design and construction for all school children. A school child may not be carried for which a safe designated seating position is not available.

Subchapter G. OPERATION STANDARDS FOR VEHICLES SUBJECT TO THIS CHAPTER

§ 171.147. Fire extinguishers.

Owners of vehicles subject to this chapter shall have the fire extinguishers in their vehicles inspected at least once a year to insure that the fire extinguishers are fully charged, properly filled and operable. Upon approval, the fire extinguisher shall be tagged, signed and dated.

§ 171.150. Use of portable emergency warning devices.

In accordance with 75 Pa.C.S. § 4530(b) (relating to portable emergency warning devices), when a bus is disabled or stopped for more than 10 minutes upon a highway, the driver shall display at least three portable warning devices. These portable warning devices shall be displayed as required by § 167.8 (relating to display).

APPENDIX A

1. For a summary or other explanation of any Federal standard, write the Director, Office of the Federal Regis-

ter, National Archives and Records Administration, Washington, D.C. 20408. The *Code of Federal Regulations* publication sales are handled exclusively by the Superintendent of Documents.

United States Government Printing Office
Superintendent of Documents
Washington, D.C. 20402

49 CFR 393	Parts and Accessories Necessary for Safe Operation
49 CFR 396	Inspection, Repair and Maintenance
49 CFR 567.7	Requirements for Persons Who Alter Certified Vehicles
49 CFR 568.8	Requirements For Persons Who Alter Certified Vehicles
49 CFR 569	Regrooved Tires
49 CFR 571	Federal Motor Vehicle Safety Standards (FMVSS)
Standard 108	Lamps, Reflective Devices and Associated Equipment
Standard 111	Rearview Mirrors
Standard 117	Retreaded Pneumatic Tires
Standard 119	New Pneumatic Tires For Vehicles Other Than Passenger Cars
Standard 120	Tire Selection And Rims For Motor Vehicles Other Than Passenger Cars
Standard 125	Warning Devices
Standard 131	School Bus Pedestrian Safety Devices
Standard 205	Glazing Materials
Standard 208	Occupant Crash Protection
Standard 209	Seat Belt Assemblies
Standard 210	Seat Belt Assembly Anchorages
Standard 213	Child Restraint Systems
Standard 217	Bus Emergency Exits and Window Retention and Release
Standard 222	School Bus Passenger Seating and Crash Protection
Standard 302	Flammability of Interior Materials
49 CFR 581	Bumper Standard

2. To order SAE handbooks or manuals or for additional SAE information, write:

Society of Automotive Engineers, Inc. (SAE)
400 Commonwealth Drive
Warrendale, PA 15096-0001
(412) 776-4970

Standard J20e	Coolant System Hoses
Standard J56	Electrical Generating System (Alternator Type) Performance Curve and Test Procedure
Standard J180b	Electrical Charging Systems for Construction and Industrial Machinery
Standard J186a	Supplemental High Mounted Stop and Rear Turn Signal Lamps
Standard J377	Performance of Vehicle Traffic Horns

- Standard J381 Windshield Defrosting Systems Test Procedure—Trucks, Buses and Multipurpose Vehicles
- Standard J382 Windshield Defrosting Systems Performance Requirements—Trucks, Buses and Multipurpose Vehicles
- Standard J578 Color Specifications
- Standard J887a School Bus Red Signal Lamps
- Standard J994b Alarm Backup Electric Performance Test and Application
- Standard J1100 Motor Vehicle Dimensions
- Standard J1133 School Bus Stop Arm
- Standard J1292 Automobile, Truck, Truck-Tractor, Trailer and Motor Coach Wiring

3. For additional SBMI information, write:

School Bus Manufacturers Institute (SBMI)
 Division of Truck Body and Equipment Association
 7508 Ben Avon Road
 Bethesda, Maryland 20817
 (301) 299-8441

Design Objectives Booklet, current edition

- Standard 001 Standard Code for Testing and Rating Automotive Bus Hot Water Heating and Ventilating Equipment

4. For additional Underwriters Laboratories, Inc. information:

Underwriters Laboratories, Inc.
 333 Pfingsten Rd.
 Northbrook, Illinois 60062
 (312) 272-8800

- Standard 299 Dry Chemical Fire Extinguishers
- Standard 723 Tests for Surface Burning Characteristics of Building Materials
- Standard 1093 Halogenated Agent Fire Extinguishers

5. For additional U.S. Department of Commerce information, write:

United States Department of Commerce
 14th and E Streets
 Washington, DC 20230

Standard PS1-83 Construction and Industrial Plywood

6. For additional ASTM information, write:

American Society for Testing and Materials (ASTM)
 1916 Race Street
 Philadelphia, Pennsylvania 19103
 (215) 299-5400

Standard B117 Standard Method of Salt Spray (Fog) Testing

7. For additional General Services Administration Specification and Consumer Information, write:

General Services Administration
 Specification & Consumer Information
 Distribution Center
 Washington Navy Yard
 Building 197
 Washington, DC 20407

Federal Coating Compound, Bituminous, Solvent Type, Specification Underbody (for Motor Vehicles) TT-C-520b

8. For additional National Institute of Standards and Technology (NIST) information, write:

National Institute of Standards and Technology
 Publications and Programs Inquiries
 Building 101, Room E106
 Gaithersburg, MD 20899
 (301) 975-3052

Federal Standard Color 37038
 No. 595a

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