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SPECIALLY EQUIPPED SCHOOL BUS SPECIFICATIONS

INTRODUCTION

Equipping buses to accommodate students with disabilities is dependent upon the needs of the passengers. While one bus may be fitted with a lift, another may have belts installed to secure child seats. Buses so equipped are not to be considered a separate class of school bus, but simply a regular school bus that is equipped for special accommodations.

The specifications in this section are intended to supplement specifications in the BODY AND CHASSIS section. In general, specially equipped buses shall meet all the requirements of the preceding sections, plus those listed in this section. It is recognized that the field of special transportation is characterized by varied needs for individual cases and by rapidly emerging technologies for meeting individual student needs. A flexible, “common sense” approach to the adoption and enforcement of specifications for these vehicles, therefore, is prudent.

As defined by 49 Code of Federal Regulations (CFR) §571.3, “Bus means a motor vehicle with motive power, except a trailer, designed for carrying more than ten persons” (11 or more including the driver). This definition also embraces the more specific category, school bus. Vehicles with 10 or fewer occupant positions (including the driver) are not classified as buses. For this reason, the federal vehicle classification, multipurpose passenger vehicle (49 CFR § 571.3), or MPV, must be used by manufacturers for these vehicles in lieu of the classification school bus.

The definition of designated seating position in 49 CFR § 571.3 states that, in the case of “vehicles sold or introduced into interstate commerce for purposes that include carrying students to and from school or related events” and which are “intended for securement of an occupied wheelchair during vehicle operations,” each wheelchair securement position shall be counted as four designated seating positions when determining the classification (whether school bus or MPV). This classification system does not preclude state or local agencies or these national specifications from requiring compliance of school bus type MPVs with the more stringent federal standards for school buses. The following specifications address modifications as they pertain to school buses that, with standard seating arrangements prior to modification, would accommodate eleven or more occupants including the driver. If by addition of a power lift, wheelchair positions or other modifications, the capacity is reduced such that vehicles become MPVs, the intent of these specifications is to require these vehicles to meet the same specifications they would have had to meet prior to such modifications, and such MPVs are included in all references to school buses and requirements for school buses which follow.
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DEFINITION

A specially equipped school bus is any school bus that is designed, equipped and/or modified to accommodate students with special transportation needs.

Rationale for Change:

Remove these two paragraphs from this section. They are better suited to be a part of the definitions section, starting on pg 261, and it is also defined on page 62, under Passenger Capacity Rating. It does not add any value to the equipment standards and requirements.
GENERAL REQUIREMENTS

A. Specially equipped school buses shall comply with the National School Transportation Specifications and Procedures and with the Federal Motor Vehicle Safety Standards (FMVSS) applicable to their Gross Vehicle Weight Rating (GVWR) category.

B. Any school bus to be used for the transportation of children who utilize a wheelchair or other mobile positioning device, or who require life-support equipment that prohibits use of the regular service entrance, shall be equipped with a power lift, unless a ramp is needed for unusual circumstances related to passenger needs.

Rationale for Change

Ramps are no longer an option when purchasing a school bus.
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B. All specially equipped school buses shall provide a level-change mechanism or boarding device (e.g., lift or ramp), complying with this section or the RAMP section, unless a ramp is needed for unusual circumstances related to passenger needs.

Rationale for Change

There is not an option for a ramp when purchasing a school bus.
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RAMPS

A. If a ramp is used, it shall be of sufficient strength and rigidity to support at least 800 pounds over an area of 26 x 26 inches. It shall be equipped with a protective flange on each longitudinal side to keep the special device on the ramp.

B. The surface of the ramp shall be constructed of non-skid material.

C. The ramp shall be equipped with handles and shall be of weight and design to permit one person to put the ramp in place and return it to its storage place. It shall be stored outside the passenger compartment.

Rationale for Change

There is not an option for a ramp on a school bus.
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SECUREMENT AND RESTRAINT SYSTEM FOR WHEELCHAIRS AND WHEELCHAIR-SEATED OCCUPANTS

For purposes of understanding the various aspects and components of this section, the terms securement and tie down and the phrases securement system or tie down system are used exclusively in reference to the devices that anchor the wheelchair to the vehicle. The term restraint and the phrase restraint system are used exclusively in reference to the equipment that is intended to limit the movement of the wheelchair occupant in a crash or sudden maneuver. The term wheelchair tie down and occupant restraint system (WTORS) is used to refer to the total system that secures the wheelchair and restrains the wheelchair occupant.

A. WTORS—general requirements:

1. A wheelchair tie down and occupant restraint system installed in specially equipped school buses shall be designed, installed, and operated for use with forward-facing wheelchair-seated passengers and shall comply with all applicable requirements of FMVSS 222, School Bus Passenger Seating and Crash Protection, and SAE J2249/WC18, Wheelchair Tie down and Occupant Restraint Systems for Use in Motor Vehicles.

Rationale for Change

WC18 is updating their securement recommendations, by adding WC18 manufactures and customers can comply with WC18 as well as use it as a reference.
B. Wheelchair Securement/Tiedown: (See 49 CFR 571.222, S5.4.1, S5.4.2.) Each wheelchair position in a specially equipped school bus shall have a minimum clear floor area of 30 inches laterally by 48 up-to 54 inches longitudinally. Additional floor area may be required for some wheelchairs. Consultation between the user and the manufacturer is recommended to ensure that adequate area is provided.

C. Occupant restraint system: (See 49 CFR 571.222, S5.4.3, S5.4.4.). If the upper torso belt anchorage is higher than 44”, measured from the vehicle floor, an adjustment device, as part of the occupant restraint system shall be supplied.

Rationale for Change:
Wheelchairs come in all sizes, this will allow for more options and better securement of students.
SUPPORT EQUIPMENT AND ACCESSORIES

A. In addition to the webbing cutter required in the BUS BODY AND CHASSIS section, each specially equipped school bus that is set up to accommodate wheelchairs or other assistive or restraint devices with webbing attached shall contain an additional webbing cutter properly secured in a location to be determined by the purchaser. The webbing cutter shall meet the requirements listed in the BUS BODY AND CHASSIS section, seats and Restraining Barriers, paragraph E.

B. Each special equipped school bus that is set up to accommodate wheelchairs or other assistive restraint devices should consider an emergency evacuation device that is certified and tested to withstand at least a 300 pound load when used as an emergency stretcher or drag. This evacuation device shall be properly secured to the bus in a location to be determined by the purchaser.

C. Special equipment or supplies that are used in the bus for mobility assistance, health support or safety purposes shall meet local, federal and engineering standards that may apply, including requirements for proper identification. Equipment that may be used for these purposes includes, but is not limited to:

1. Wheelchairs and other mobile seating devices. (See subsection on Securement and Restraint System for Wheelchairs and Wheelchair-seated Occupants.)

2. Crutches, walkers, canes and other ambulating devices to assist ambulation.

3. Medical support equipment. This may include respiratory devices, such as oxygen bottles (which should be no larger than 38 cubic feet for compressed gas) or ventilators. Tanks and valves should be located and positioned to protect them from direct sunlight, bus heater vents or other heat sources. Other equipment may include intravenous and fluid drainage apparatus.

Rationale for Change:

By adding this evacuation device it will enhance the safety of special needs students in an emergency.
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D. If transporting oxygen, the retention system shall meet AMDSS standard 003 (oxygen tank retention system static test procedures). The bottle or tank shall be properly secured in an oxygen tank restraint system. This system shall secure the oxygen tank to withstand a force of 20 times the weight of a fully loaded oxygen tank, for which the tank holder was designed to restrain, is applied to the oxygen tank holder. The tank shall not separate from the holder and the holder shall not separate from the vehicle.

Rationale for Change:

Provide some guidelines for installing oxygen on the school bus.