**Section 436.APPENDIX H Mirrors through Rub Rails**

a) MIRRORS

PROCEDURES/SPECIFICATIONS:

Every required mirror shall be of reflecting material protected from abrasion, scratching, and corrosion. Mirror shall be firmly installed on stable supports so as to give a clear, stable, reflected view. Mirrors must meet all requirements of 49 CFR 571.111 to provide the required field of view.

Convex crossover mirrors can be combined with either the right or left side safety mirrors provided the convex mirror meets the field of view and size requirements of 49 CFR 571.111.

REJECT VEHICLE IF:

Mirrors do not meet requirements; are defective; are excessively clouded; are not securely attached; have cracked or broken glass.

1) Exterior

A) Rear View Driving

PROCEDURES/SPECIFICATIONS:

Shall be mounted outside on the left and right sides of the MFSAB. Must give seated driver a view to the rear along each side of the MFSAB. Must be at least 50 square inches of usable flat rectangular reflecting surface on each side. (See 49 CFR 571.111.)

If the rear view driving mirror does not provide the required field of view, a convex driving mirror must be installed to expand the driving view to the rear. However, the usable flat reflecting surface must be rectangular and must maintain at least 50 square inches.

REJECT VEHICLE IF:

Rear view driving mirror does not meet requirements; is defective; is excessively clouded; is not adjustable; is not securely attached; has cracked or broken glass.

B) Right Side Safety

PROCEDURES/SPECIFICATIONS:

An outside convex mirror, either alone or in combination with the crossover mirror system, shall give the seated driver a view of the roadway along the right side of the MFSAB between the most forward surface of the right front tire and the rear of the rear bumper. The projected reflecting surface of this convex mirror shall be at least 40 square inches (7⅛ inches (18.10 cm) diameter if a circle).

Extra-wide-angle convex mirror heads are permissible on right front corner only.

REJECT VEHICLE IF:

Right side safety mirror does not meet requirements; is defective; is excessively clouded; is not adjustable; is not securely attached; has cracked or broken glass.

C) Left Side Safety (Optional)

PROCEDURES/SPECIFICATIONS:

A convex mirror is required if the left rear view driving mirror system does not give the seated driver a reflected view of the roadway along the left side of the MFSAB between the front edge of the driver's seat (in most forward position) and the rear of the rear bumper. The convex mirror shall be installed so that either alone or in combination with the rear view driving mirror gives the seated driver the proper view.

REJECT VEHICLE IF:

Left side safety mirror does not meet requirements; is defective; is excessively clouded; is not adjustable; is not securely attached; has cracked or broken glass.

D) Crossover

An outside convex mirror shall give the seated driver a view of the front bumper and the area of roadway in front of the MFSAB. The projected reflecting surface of this mirror shall be at least 40 square inches (7⅛ inch (18.10 cm) diameter if a circle). (See 49 CFR 571.111.)

Exception: If the seated driver of a forward control MFSAB has a direct view of the front bumper and the area of roadway in front of the MFSAB, a crossover mirror is optional.

REJECT VEHICLE IF:

Crossover mirror does not meet requirements; is defective; is excessively clouded; is not adjustable; is not securely attached; has cracked or broken glass.

2) Interior

PROCEDURES/SPECIFICATIONS:

Must have a clear view safety glass mirror, metal backed and framed with rounded corners and edges that shall be padded. Shall afford a good view of the interior and roadway to the rear.

REJECT VEHICLE IF:

Interior mirror does not meet requirements; is defective; is excessively clouded; is not adjustable; is not securely attached; has cracked or broken glass.

b) PAINT REQUIREMENTS

PROCEDURES/SPECIFICATIONS:

The exterior of any MFSAB can be any color except national school bus glossy yellow.

Each opening for a required emergency exit must be outlined around its outside perimeter with a minimum one inch (2.54 cm) wide retroreflective tape, including roof exits. The retroreflective tape must be on the exterior surface of the MFSAB. Required retroreflective tape can be located on the rear bumper or the rub rail, provided the space under the emergency exit door or emergency exit window is not adequate to accommodate the tape or provided rivets are present that prohibit the tape from being applied properly. (49 CFR 571.217)

REJECT VEHICLE IF:

Paint does not meet color requirements or is in poor condition (i.e., faded, peeling or rusted). MFSAB is painted national school bus glossy yellow.

c) PEDALS (ACCELERATOR, SERVICE BRAKE, CLUTCH, EMERGENCY/ PARKING BRAKE)

PROCEDURES/SPECIFICATIONS:

Minimum 1½ inches (3.81 cm) clearance with pedal fully depressed. All pedals must be covered with rigid nonslip material.

Manufactured pedal extensions are allowed. They must be securely attached and covered with rigid nonslip material. Homemade pedal extensions are prohibited.

REJECT VEHICLE IF:

Pedals do not meet clearance requirements or are not covered with rigid nonslip material. Manufactured pedal extensions are not securely attached. Homemade pedal extensions are present.

d) PROJECTIONS

1) Exterior

PROCEDURES/SPECIFICATIONS:

Entire rear and bumper area of MFSAB must be nonhitchable.

AGENCY NOTE: "Nonhitchable" is defined as the rear of the MFSAB being designed and maintained to prevent or discourage riding or grasping rear of MFSAB so as to "hitch" rides.

REJECT VEHICLE IF:

Exterior projections do not comply with nonhitchable requirements.

2) Interior

PROCEDURES/SPECIFICATIONS:

Interior shall be free of all dangerous projections.

Optional equipment (e.g., video camera) that is located in the bulkhead area of the MFSAB and not flush with the interior walls must meet the following requirements:

A) Must not interfere with occupants entering or exiting the MFSAB.

B) Must not be located in driver's head impact zone.

C) Must not obstruct required lettering.

Additional projections (e.g., external speakers, air conditioners, overhead storage racks) located within 59 inches (149.86 cm) from the floor shall be padded to prevent injury. This includes inner lining of ceiling and walls.

Flush mounted speakers are exempt from padding requirements.

REJECT VEHICLE IF:

Optional equipment in bulkhead area does not meet requirements.

Remaining projections are not padded (e.g., external speakers).

e) RADIO SPEAKERS

Radio/stereo speakers cannot be located within four feet of the rearmost position of the driver's seat.

REJECT VEHICLE IF:

Speakers are located in the prohibited area or are not deactivated.

Exception: Two way radio speakers are exempt.

f) REFLECTORS

Two or more lamps or reflectors may be combined if the requirements for each lamp or reflector are met. (See 49 CFR 571.108-S6.3.)

1) Front

PROCEDURES/SPECIFICATIONS:

Two yellow or amber rigid or sheet type (tape) reflex reflectors shall be securely attached on the front of the body near the lower left and right hand corners. (See Section 12-202 of the Illinois Vehicle Equipment Law.)

These front reflectors shall be located between 15 and 60 inches (38.1 cm and 152.4 cm) above the roadway at either fender, cowl, or body and installed so as to mark the outer edge of the maximum width of the MFSAB. No part of the required reflecting material may be obscured by a lamp, mirror, bracket or any other portion of the MFSAB.

No part of the required reflecting material may be more than 11.8 inches (29.97 cm) inboard of the outer edge of the nearest rub rail.

The reflector may be any shape (e.g., square, rectangle, circle, oval, etc.). A rigid type reflex reflector may be any size if permanently marked either DOT, SAE A, or SAE J 594; otherwise, it shall display at least seven square inches of reflecting material (about 3 inch (7.62 cm) diameter if a solid circle).

A sheet type (tape) reflex reflector may conform to the surface on which it is installed but its forward projected reflecting area shall be at least eight square inches.

Exception: MFSAB that measure less than 80 inches (203.2 cm) wide are exempt. (See 49 CFR 571.108.)

REJECT VEHICLE IF:

Missing or damaged reflective material; not located or positioned as required.

2) Left Side

PROCEDURES/SPECIFICATIONS:

One amber no more than 12 inches (30.48 cm) from the front and one red no more than 12 inches (30.48 cm) from the rear. Mounted at a height not less than 15 inches (38.10 cm) and not more than 60 inches (152.4 cm) above the surface of the road.(See Section 12-202 of the Illinois Vehicle Equipment Law.)

On MFSAB more than 30 feet long (914.4 cm), one amber reflector must also be provided at or near midpoint between front and rear side reflector. (See 49 CFR 571.108.)

All reflectors must measure at least three inches (7.62 cm) in diameter.

REJECT VEHICLE IF:

Missing or damaged reflective material; not located or positioned as required.

3) Right Side

PROCEDURES/SPECIFICATIONS:

One amber no more than 12 inches (30.48 cm) from the front and one red no more than 12 inches (30.48 cm) from the rear. Mounted at a height not less than 15 inches (38.1 cm) and not more than 60 inches (152.4 cm) above the surface of the road.(See Section 12-202 of the Illinois Vehicle Equipment Law.)

On MFSAB more than 30 feet long (914.4 cm), one amber reflector must also be provided at or near midpoint between front and rear side reflector. (See 49 CFR 571.108.)

All reflectors must measure at least three inches (7.62 cm) in diameter.

REJECT VEHICLE IF:

Missing or damaged reflective material; not located or positioned as required.

4) Rear

PROCEDURES/SPECIFICATIONS:

Two red reflectors on rear body within 12 inches (30.48 cm) of lower right and lower left corners. (See Section 12-202 of the Illinois Vehicle Equipment Law.) Minimum three inches (7.62 cm) in diameter.

Exception: MFSAB that measure less than 80 inches (203.2 cm) wide are exempt. (See 49 CFR 571.108.)

REJECT VEHICLE IF:

Missing or damaged reflective material; not located or positioned as required.

g) RUB RAILS

There shall be one rub rail, located approximately at seat level, that shall extend from the rear of the service entrance completely around the MFSAB body without interruption, except at functioning doors or a rear engine compartment, to a point of curvature near the front of the body on the left side.

There shall be one rub rail on each side, located approximately at the floor line, that shall extend over the same longitudinal distance as the rub rail located at the seat level.

More than two rub rails may be installed on sides and rear of the MFSAB.

Rub rails of longitudinally corrugated or ribbed steel at least 3.9 inches (9.91 cm) wide shall be fixed on the outside of the MFSAB.

Exceptions:

1) Rub rail need not extend across wheel housing.

2) Rub rail may terminate at the point of curvature at the right and left rear corners of the body.

REJECT VEHICLE IF:

Rub rails are missing; are not firmly attached; or there is an incorrect number of rails.

(Source: Amended at 37 Ill. Reg. 6823, effective May 3, 2013)