
The Wisconsin Department of Transportation adopts an order to amend TRANS 300.15(2)(d), 300.31(4), 300.34(1), (4)(c) and (f), 300.54(1)(a)1.c., 2., 9., (d)1. and (L), 300.59, 300.60(4), 300.64(2) and (3)(c), 300.69(3) and 300.73; repeal and recreate TRANS 300.81(6); and create TRANS 300.19(5), 300.34(4)(k) and 300.355, relating to school bus equipment standards

ORDER ADOPTING RULE**Analysis Prepared by the Wisconsin Department of Transportation**

STATUTORY AUTHORITY: ss. 85.16(1), 110.06(2) and 347.445, Stats.

STATUTES INTERPRETED: ss. 110.06 and 347.445, Stats.

General Summary of Rule. This rule making will address the installation, operation and specifications for retractable school bus crossing gates which will be required on all school buses effective May 1, 2004 as provided by 2001 Wis. Act 58. The Department is also taking this opportunity to clarify minor points of confusion and to update the rule to include approved changes in equipment manufacturing standards, practices and technology.

Fiscal Effect. The Department estimates that there will be no fiscal impact on state revenues or liabilities. The Department estimates that there will be minimal fiscal impact on the liabilities or revenues of any county, city, village, town, school district, vocational, technical and adult education district or sewerage district. The rule will have no fiscal effect independent of the fiscal impact of s. 347.455, Stats. It is estimated that the cost to retrofit existing buses with crossing gates will be \$250.00 per bus and that the additional cost to purchase crossing gates as part of a new bus will be \$175.00 per bus. The delayed effective date of 2001 Wis. Act 58 allows school districts and school bus contractors to budget and plan for these additional costs for their school bus fleets.

Final Regulatory Flexibility Analysis. This rule will have no significant adverse impact on small businesses.

Copies of Rule. Copies of the rule may be obtained upon request, without cost, by writing to Sgt. David Pabst, Department of Transportation, Division of State Patrol, Room 551, P. O. Box 7912, Madison, WI 53707-7912, or by calling (608) 266-0264.

Hearing-impaired individuals may contact the Department using TDD (608) 266-3096. Alternate formats of the rule will be provided to individuals at their request.

TEXT OF RULE

Under the authority vested in the state of Wisconsin, department of transportation, by ss. 85.16(1), 110.06(2) and 347.445, Stats., the department of transportation hereby amends a rule interpreting ss. 110.06 and 347.445, Stats., relating to school bus equipment standards.

SECTION 1. Trans 300.15(2)(d) is amended to read:

Trans 300.15(2)(d) The initial inspection and a copy of the latest inspection performed by state ~~employees~~ employees.

SECTION 2. Trans 300.19(5) is created to read:

Trans 300.19(5) Remove the crossing gate.

SECTION 3. Trans 300.31(4) is amended to read:

Trans 300.31(4) A type A-I, B, C or D school bus when equipped with air or vacuum assisted brakes shall be equipped with a reserve tank having a capacity of not less than 1,000 cubic inches to provide additional air or vacuum for the primary brake system. There shall be a check valve or pressure protective valve to protect the system from loss of air or vacuum. There shall be no accessory except the low pressure warning device operated from the air or vacuum reserve tank or its connecting lines. The low pressure warning system shall be installed to indicate the air pressure or vacuum in the tank. The gauge required to monitor this system shall be visible to the driver at all times. Unless previously equipped, a type A-I school bus with a GVWR of 11,500 pounds or less that uses vacuum assisted brakes is not required to be equipped

with an additional reserve tank and gauge, provided the vacuum assist system meets FMVSS No. 105.

SECTION 4. Trans 300.34(1), (4)(c) and (f) are amended to read:

Trans 300.34(1) All school buses shall be painted national school bus glossy yellow with the exception of the trim, grill, wheels and the bumpers. Grills and wheels may be chrome, black, yellow, silver, or gray. Engine hood tops may be painted matte black or lusterless yellow for glare reduction.

(4)(c) Window sash, seals, gaskets, pillars, and bands on exposed edges.

(f) Lamp flanges, housings, and an area around the ~~7-inch tail lamp~~ lamps or combination stop and turn lamps not to exceed 3 inches. Areas adjacent to rub rails may exceed 3 inches to the extent of the width of the rub rail.

SECTION 5. Trans 300.34(4)(k) is created to read:

Trans 300.34(4)(k) Service door.

SECTION 6. Trans 300.355 is created to read:

Trans 300.355 Crossing gate. (1) All school buses shall have a crossing gate installed by May 1, 2004.

(2) The crossing gate shall be mounted on the right side of the front bumper and shall open to 90 degrees.

(3) The crossing gate shall meet or exceed SAE J1133. The crossing gate shall be constructed of noncorrosive or nonferrous material or treated in accordance with body sheet metal specifications and shall have no sharp edges or projections that could cause hazard or injury to students. The color may be yellow, black, silver or gray.

(4) The crossing control arm shall extend a minimum of 70 inches, measured from the bumper at the arm assembly attachment point, when in the extended position. The arm shall extend simultaneously with the stop arm by means of the stop arm controls.

(5) An automatic recycling interrupt switch may be installed for temporary disabling of the crossing control arm. An electromagnetic device may be installed to stabilize the arm when in the stored position.

SECTION 7. Trans 300.54(1)(a)1., 1.c., 2., 9., (d)1. and (L) are amended to read:

Trans 300.54(1)(a)1. The bus shall be equipped with 2 red warning lamps at the rear of the bus and 2 red warning lamps at the front of the bus, which shall be controlled by a manually actuated switch and shall flash alternately at rate of 60 to 120 cycles per minute. A brake or door operated switch is not permitted. The “on” period shall be long enough to permit bulb filament to come to full brightness. Two additional red warning lamps to the front and 2 to the rear may be installed inboard and at the same level as the required lamps. If so equipped, the system of red warning lamps shall be of equal size and wired so that the inboard lamps are energized manually. The outboard lamps shall be automatically energized and the inboard lamps automatically de-energized when the stop signal arm is extended.

1.c. The optional system shall have units with a red lens of at least the same diameter ~~or~~ size as the required alternating lights. The alternating “on,” “off” positions shall be opposite from those of the required alternating lights. The effect will produce the required top mounted flashing light and an optional mid–height mounted light to flash on

opposite sides simultaneously. The result can be described as a “wig–wag” or “cross–arm” effect.

2. The red warning lamps shall be of seal beam construction or other approved type such as strobe or light emitting diode, not less than 5 inches in diameter or with a surface area of at least 19 square inches if not round and visible from a distance of at least 500 feet along the axis of the vehicle in bright sunlight.

9. The area around the lens of each alternately flashing red signal lamp and extending outward approximately 3 inches to the top and sides and a minimum of one inch to the bottom shall be painted black on all school buses. This subdivision does not apply to vehicles not specifically manufactured as school buses and which have red warning signal lamps mounted above the roof top. Red warning signal lamps on such buses shall be equipped with black hoods at least 3 inches long.

(d)1. There shall be at or near the front, facing forward, one amber turn signal light on each side of the vertical centerline mounted at the same height, as wide as practicable. The bus may be equipped with signals mounted in the body or chassis. If not equipped with body or chassis mounted front turn signals, double faced signals shall be installed either on the fender or hood and shall be as wide as practicable. Mounting of double faced signals may not be higher than the bottom of the windshield or lower than the headlamps. ~~This paragraph does not apply to buses of 10,000 pounds GVWR or less provided the bus meets the requirements of s. 347.15, Stats.~~

(L) There shall be 2 red stop lamps meeting the requirements of SAE J586 mounted on the rear, one on each side of the vertical centerline at the same height and

as far apart as practicable. Type A-I, B, C or D buses shall be equipped with lamps at least 7 inches in diameter or with at least 38 square inches of surface area if not round.

The stop lamps shall activate upon application of the service brakes.

SECTION 8. Trans 300.59(1) is amended to read:

Trans 300.59(1) All seats shall be forward facing and securely fastened to that part or parts of the body which support them. Passenger seat cushions shall be fastened to prevent the cushions from disengaging from the seat frames in event of an accident. There shall be a minimum space of 24 inches between the forward surface of a seat back and the rear surface of the seat or barrier ahead measured across the seat cushion without depressing any surface. The forward surface of seat backs may have side bolsters that briefly reduce the width to less than 24 inches provided the remainder of the seat measures at least 24 inches.

SECTION 9. Trans 300.60(4) is amended to read:

Trans 300.60(4) The upper and lower glass panels of the service door shall be of safety glass. The bottom of the lower glass panel may not be more than 35 inches from the ground when the bus is unloaded. The top of the upper glass panel may not be more than 6 inches from the top of door. The upper glass panel ~~must~~ shall be of insulated glass or of a thermo electric design that performs at least as well as insulated glass.

SECTION 10. Trans 300.64(2) and (3)(c) are amended to read:

Trans 300.64(2) ~~Any bus manufactured after January 1, 1978, shall have the stop signal arm controlled by the service door. The stop signal arm may not become~~

~~operational until the service door opens.~~ The stop signal arm shall be installed in such a manner that it cannot be activated unless the alternately flashing red lamps are in operation.

(3)(c) It shall be equipped with 2, 4-inch or larger, double faced alternating flashing red lamps to be mounted near the perimeter of the sign with a minimum of 12 inches spacing between lamp centers ~~or the sign may be equipped with high-visibility, light-emitting diodes that flash and spell out the word "STOP".~~ These lamps shall be wired to the circuit of the flashing red warning lamps mounted on the front and rear of the bus. These lamps may be strobe lamps or light emitting diodes. In lieu of the 2 double faced alternating flashing red lamps, the stop signal arm may be equipped with red flashing, high ~~intensity~~ visibility light-emitting diodes incorporated into the word "STOP," in accordance with the requirements of sub. (3)(b).

SECTION 11. Trans 300.69(3) is amended to read:

Trans 300.69(3) On type A-I, B, C or D buses, the window to the driver's immediate left and the window immediately to the rear of the service door shall be ~~hermetically sealed glass with an insulating air space~~ of insulated glass or of a thermo electric design that performs at least as well as insulated glass. Exceptions are cutaway van based vehicles manufactured in 2 stages equipped with a driver's door and a roll-up window. If a lift and lift door are located immediately to the rear of the service door, the window in the lift door is not required to meet this requirement. The window to the rear of the lift door may be glazing applicable to other windows.

SECTION 12. Trans 300.73 is amended to read:

Trans 300.73 Wiring. All circuits of the bus shall be protected by a circuit breaker, field effect transistors, or fuse of sufficient rating to handle the current load.

SECTION 13. Trans 300.81(6) is repealed and recreated to read:

Trans 300.81(6) AIR FOIL. A school bus may be equipped with a yellow or black air foil system on the top rear. An air foil system shall be mounted so as not to interfere with the visibility of required lights and lettering.

(END OF RULE TEXT)

Effective Date. This rule shall take effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22(2)(intro.), Stats.

Signed at Madison, Wisconsin, this ____ day
of **March**, 2004.

FRANK J. BUSALACCHI
Secretary
Wisconsin Department of Transportation