

## Chapter Trans 309

### AMBULANCE INSPECTION

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**Note:** Chapter Trans 309 created effective November 1, 1986 replaces ch. Trans 157.

**Subchapter I—General Provisions****Trans 309.01 Purpose and scope; construction.**

(1) The purpose of this chapter is to prescribe minimum vehicle and medical equipment specifications for ambulances and to establish administrative procedures for implementing the ambulance inspection program under s. 341.085, Stats.

**Note:** To be licensed as an ambulance service provider in Wisconsin, all ambulances used by the ambulance service provider must be first inspected by Wisconsin DOT per ch. Trans 309, ss. HFS 110.04 (1) (b) and (2), 111.06 (2) (k) and 112.07 (2) (L).

(2) This chapter applies to all ambulances in service in this state.

(3) (a) This chapter shall be construed by the department to reasonably effectuate the legislative purpose of promoting safe, efficient emergency transportation for the sick, injured and disabled.

(b) Vehicles subject to the standards and specifications prescribed in the chapter are also subject to any other administrative rule or statute governing motor vehicle design, construction or equipment. Unless the express terms or context requires otherwise, this chapter shall be construed as supplementing rather than conflicting with other such statutes or administrative rules.

(c) This chapter prescribes minimum standards applicable to all ambulances subject to inspection under s. 341.085, Stats. Ambulance service providers may exceed these minimum standards. Also, some ambulances may be subject to higher or more restrictive standards imposed as conditions for receiving federal assistance in connection with the acquisition of ambulance vehicles and equipment. Ambulance service providers are responsible for complying with all conditions and requirements, including those related to color and marking, contained in federal assistance grants or agreements.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (3) (a), Register, April, 1994, No. 460, eff. 5-1-94; am. (2), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.02 Definitions.** As used in this chapter:

(1) "Advanced skill" has the meaning given in s. HFS 110.03 (3).

(1m) "Ambulance" means any authorized emergency motor vehicle as defined in s. 340.01 (3), Stats., whether privately or publicly owned, which is designed, constructed or equipped to transport patients.

(2) "Ambulance service provider" has the meaning given in s. 256.01 (3), Stats.

(3) "Department" means the department of transportation.

(4) "EMT" has the meaning given in s. 256.01 (5), Stats.

(5) "EMT-intermediate" means an emergency medical technician-intermediate as defined in s. HFS 111.03 (5).

(6) "EMT-paramedic" means an emergency medical technician-paramedic as defined in s. 256.01 (8), Stats.

(7) "In-service ambulance" means an ambulance that is ready to take calls, including emergencies, transfers or standing by at a special function.

(8) "Inspector" means any officer or employe of the department who is authorized and assigned to conduct ambulance inspections under this chapter.

(9) "Medical director" means a medical director as defined in s. 256.01 (11), Stats.

(10) "Person" means any individual, corporation, partnership, association, the state and political subdivisions thereof and any municipal corporation.

(11) "Reserve ambulance" means an ambulance kept in reserve in case an in-service ambulance needs to be taken out of service for repairs.

(12) "Type I ambulance" means a motor truck with a modular unit having a rear window opening or a walk-through from the cab to the modular unit. "Type I ambulance" includes a vehicle that is used for a combination of fire and ambulance purposes.

(13) "Type II ambulance" means a van type vehicle constructed or converted with a raised roof.

(14) "Type III ambulance" means a specialty van and modular unit with a rear window opening or walk-through from the cab to the modular unit.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; r. (2), (11), renum. (3), (5), (6), (9), (10), (12), (13) and (14) to be (2), (3), (5), (6), (9), (10), (11) and (12) and am. (5), (6) and (10), r. and recr. (4), Register, April, 1994, No. 460, eff. 5-1-94; correction in (5) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1996, No. 488; renum. (1) and (7) to (12) to be (1m), (8) to (10), (12) to (14) and am. (12) and (14), cr. (1), (7) and (11), Register, February, 1999, No. 518, eff. 4-1-99; **corrections in (2), (4), (6) and (9) made under s. 13.92 (4) (b) 7., Stats.**

**Trans 309.03 Inspections.** (1) No person may use any motor vehicle for the purpose of providing ambulance services unless the vehicle has been inspected and approved by the department for use as an ambulance in this state. Except as otherwise provided, each ambulance shall be inspected at least biennially to the satisfaction of the inspector to ensure that the ambulance meets the minimum standards applicable to that vehicle under subchs. I, II and III. Whenever the ambulance service provider upgrades to a higher level of provider service, the service provider shall notify the inspector. When a reserve ambulance is put into in-service ambulance status, it shall meet all requirements of this chapter.

**(1m)** Sub. (1) does not prevent the inspector from doing spot inspections to check for compliance with this chapter.

**(1r)** Whenever the department receives a complaint about a service provider alleging non-compliance with this chapter, the inspector shall investigate and, where appropriate, inspect the provider's ambulances.

**(2)** The ambulance service provider shall present the vehicle for inspection when notified by the department and shall cooperate with the inspector. Whenever possible, the department shall perform the inspections at the ambulance service provider's place of business or other site convenient to the ambulance service provider's base of operation. The inspector shall conduct the inspection in a manner that will not interfere with the provision of ambulance service.

**(3)** (a) Except as provided in sub. (4), if upon inspection a vehicle is found to be unsafe or improperly constructed or equipped for use as an ambulance, or if the ambulance service provider's license has been revoked, the inspector shall attach an "OUT OF SERVICE" sticker to the glass in the rear door of the vehicle. A vehicle may not be put in service as an ambulance while the sticker is so displayed. Except as provided in par. (b), the "OUT OF SERVICE" sticker may be removed only by a department authorized inspector and only after the deficiencies noted on the inspection report have been corrected, or the ambulance provider's license has been reinstated, and the vehicle has been reinspected and approved by the department.

(b) 1. If a vehicle that has been declared "out of service" is no longer to serve as an ambulance, the owner or lessee of the vehicle shall remove the "OUT OF SERVICE" sticker and all special ambulance markings and features from the vehicle, including all of the following:

a. The warning, flood lights and siren unless the vehicle is being converted for use as another kind of authorized emergency vehicle.

b. Any lettering identifying the vehicle as an ambulance.

c. All equipment required in subch. III.

2. The owner or lessee of the vehicle is not required to obtain approval from the department but shall notify the department when he or she proceeds under this paragraph.

**(4)** If upon inspection a vehicle is found defective or deficient but, in the judgment of the inspector, may nevertheless be operated as an ambulance without seriously affecting the safe transportation of sick, injured or disabled persons, the inspector shall note the deficiency on the ambulance inspection report and shall specify the time, not to exceed 30 days, in which the ambulance service provider is required to correct the defect or deficiency. If the defect or deficiency is not corrected within the time allowed, the vehicle may not be used as an ambulance.

**(5)** A vehicle being used as an ambulance shall immediately be rendered out of service and the service provider may be assessed a monetary penalty if, upon inspection, the ambulance is found to have any of the following, and sub. (4) does not apply:

(a) A malfunctioning brake system.

(b) A faulty exhaust system.

(c) A faulty battery system.

(d) A malfunctioning fuel system.

(e) An inadequate on-board oxygen system.

(f) An unsafe structure.

(g) Unsafe tires.

(h) Ten or more minor violations which, in the opinion of the inspector, shows a lack of effort on the part of the service provider to stay in compliance with this chapter.

(i) Repeat violations from the previous inspection report with no maintenance history or documentation that the problem had been corrected.

**(6)** The vehicle shall be rendered out of service and the provider may be assessed monetary penalties when the provider knowingly resists or obstructs the inspector while the inspector is doing any act in an official capacity and with lawful authority. For purposes of this subsection, "obstructs" includes, without limitation, knowingly giving or demonstrating false information to the inspector.

**(7)** The penalty for violating sub. (5) (a) to (h) is a forfeiture of up to \$50.00 per violation. The penalty for violating sub. (5) (i) is a forfeiture of up to \$100.00. The penalty for violating sub. (6) is a forfeiture of up to \$200.00.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1), (3) (a) and (b) 1. intro., r. (3) (b) 1. b., renum. (3) (b) 1. c. and d. to be (3) (b) 1. b. and c., Register, April, 1994, No. 460, eff. 5-1-94; am. (1), (3) (b) 1. (intro.), a., b., 2. and (4), cr. (1m), (1r) and (5) to (7), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.04 Specialized emergency medical care vehicles.** **(1)** In recognition of their highly specialized design, construction, equipment and function, mobile intensive care units and intensive care vehicles designed and equipped for neonatology medical services, that are used only for transportation of patients between hospitals, are exempt from the vehicle equipment standards prescribed in ss. Trans 309.09 to 309.11, 309.14, 309.15 (3), 309.18 and 309.19 and subch. III.

**(2)** A vehicle subject to this section may not be used as a primary response vehicle, but may be used only for mobile intensive care or neonatology medical care purposes.

**(3)** A vehicle subject to this section may respond as an additional resource vehicle during times such as a disaster emergency when local resources, including mutual aid resources, are exceeded.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1), Register, April, 1994, No. 460, eff. 5-1-94; am. (2), cr. (3), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.05 Exceptions for ambulances in service before December 30, 1979.** **History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1) (d), and (3) (b), Register, April, 1994, No. 460, eff. 5-1-94; r. Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.06 Sale or lease of new or used vehicles for use as ambulances.** Any person selling or leasing any new or used vehicle that is intended to be used as an ambulance shall provide the purchaser or lessee with a written notice stating that the vehicle complies with the requirements of ss. Trans 309.09 to 309.16.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am., Register, April, 1994, No. 460, eff. 5-1-94.

**Trans 309.07 Variances.** **(1)** The department may grant a variance if it determines that the lack of such variance will create an undue hardship in meeting the emergency medical service needs of the community the applicant serves.

**(2)** In determining whether an undue hardship may be created if a variance is not granted, the department shall consider all of the following:

(a) The kind and amount of emergency medical services available in the immediate area served by the applicant.

(b) The presence of other ambulance service providers in surrounding communities that might be available to assist in emergencies through mutual aid agreements or other similar arrangements.

(c) The number and type of emergency and nonemergency service calls made by the applicant within the 2-year period immediately preceding the date of application.

(d) Any plans developed by the applicant to upgrade the existing vehicles to established specifications.

(e) Any other information that may be relevant to the question of the need for a variance in the particular case.

**(3)** Each application for a variance shall be referred by the department to the department of health and social services for review

and recommendation. The department shall give great weight to such recommendation when deciding whether a variance should be granted.

(4) The issuance of a variance to any person for any ambulance does not exempt that vehicle from the biennial inspection requirements imposed in this chapter.

(5) The right to continue operation of an ambulance for which a waiver or a variance has been granted or recognized under this section is not transferable to any other person or vehicle.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1) and (4), Register, April, 1994, No. 460, eff. 5-1-94; r. (1) and (4), renum. (2) (a), (b) (intro.), 1. to 5., (5) and (6) to be (1) and (2) (intro.), (a) to (e), (4) and (5) and am. (2) (intro.) to (d), (4) and (5), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.08 Documentation.** (1) **REGISTRATION.** At the time of inspection, the service provider shall open to inspection the proof of current registration on each ambulance to be inspected. The proof of registration or copy of it shall be available upon request of the inspector at the place of inspection.

(2) **DRUG LIST.** Upon inspection, the service provider shall provide a copy of the current list of approved drugs from the services medical director. The list shall state the minimum amount of each drug the provider will carry on each ambulance.

**History:** Cr. Register, February, 1999, No. 518, eff. 4-1-99.

## Subchapter II—Vehicle Standards

**Trans 309.09 Patient compartment interior dimensions.** (1) The patient compartment shall have not less than 300 cubic feet of space less 10% deviation for cabinets and shall meet the following specifications:

(a) *Length.* Measured from the partition to the inside edge of the rear loading doors, the patient compartment shall be not less than 116 inches in length. There shall be not less than 25 inches and not more than 30 inches of unobstructed space at the head of the primary patient, measured from the face of the backrest of the EMT's seat to the forward edge of the primary cot.

(b) *Width.* After cabinet and cot installation there shall be not less than 12 inches nor more than 24 inches of clear aisle walkway between the elevating wheeled cot and the bench seat or non-elevating cot-bench. A center mounted cot arrangement is permitted as long as a 12 inch aisle space is maintained.

(c) *Height.* The patient compartment shall be not less than 60 inches in height over the patient area measured from the floor to the ceiling, exclusive of cabinets or equipment and symmetrical corners and edges.

(2) The interior of the body shall be free of all unnecessary projections. It shall be maintained in a sanitary condition. All hangers or supports for equipment and devices shall be mounted as flush as possible with the surrounding surface when not in use. Padding shall be placed at all head area obstructions which may prove dangerous to persons moving about in the patient compartment. Other exposed edges shall be beveled with not less than a 1/8 inch radius or chamfer, and a 1/2 to 1 inch radius on exposed corners. The finish of the entire patient compartment including interiors of storage cabinets shall be impervious to soap and water, disinfectants and mildew and shall be fire resistant. Any floor to wall surface joints shall be sealed with an impervious seal.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1) (a) and (2), Register, April, 1994, No. 460, eff. 5-1-94; corrected to restore dropped copy, Register, April, 1997, No. 496; am. (1) (c), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.10 Doors.** An ambulance shall have 2 unobstructed door openings in addition to the doors for the driver cab compartment. There shall be at least one door opening on the right forward side and a single door or double doors at the rear of the patient compartment. A forward hinged single door, double doors or a sliding type door shall have a minimum right side door opening of 30 inches in width, and 54 inches in height for Types I and III ambulances and 42 inches in height for Type II ambulances. The opening shall provide clearance to allow access and removal

of a patient strapped to a long spine board. Single or double rear loading doors shall cover a clear opening of not less than 46 inches in height and 44 inches in width for Types I and III ambulances, and the manufacturer's standard for Type II ambulances. The ambulance body doors shall be equipped with not less than 250 square inches of safety glass area per door. Doors shall be designed for easy release from both the interior and exterior of the ambulance, but an accidental opening shall be prevented by an interlocking system that functions even when doors are not completely closed. Each door shall have effective compression or overlapping seals to prevent the entry of dust, water and air. Doors may contain recessed compartments to the interior for storage of supplies and devices.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**Trans 309.11 Bumpers, steps and stepwells.** Chassis manufacturer's standard bumpers shall be furnished with the exception of the rear bumpers of Type I and III ambulances. Type I and III ambulances shall have a sturdy full width rear vehicular and body bumper with step, secured to the vehicle's chassis-frame. The rear bumper and step shall be adequate to support the test weight of 500 pounds without flexing or buckling. If the patient compartment floor is more than 18 inches above the ground on a Type II ambulance, a step shall be installed within 2 inches of an equal distance between the ground and the patient compartment floor. All bumper steps shall be designed to prevent the accumulation of mud, ice or snow and shall be made of antiskid, open grating metal. Steps may be of a folding style but may not be located within or exposed to the interior of the ambulance when the doors are closed. All steps shall extend the full width of the door opening for which they are provided and shall be not less than 5 inches nor more than 10 inches in depth.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**Trans 309.12 Tires and wheels.** (1) Each tire shall have not less than 1/8 inch tread depth. The depth shall be measured at 2 points not less than 15 inches apart in any major tread groove at or near the center of the tire.

(2) Wheels, tires and brake drum assemblies shall be in balance.

(3) Snow tires with tungsten carbide studs may be installed on an ambulance from the 15th day of November each year through the 1st day of April of the following year.

(4) Recapped tires may not be installed on any ambulance.

(5) Tires shall be maintained in good working condition.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; reprinted to restore dropped copy in (1), Register, April, 1997, No. 496; am. (1) and (2), cr. (5), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.13 Batteries.** All ambulances shall be equipped with a 2 or more battery system. All batteries should be securely attached to prevent dislocation in the event of an accident. When mounted outside of the engine compartment the battery shall be contained in a closed, drained, weather-tight and vented compartment in the body skirt, which shall retain the battery in the event of an upset or rollover. The battery compartment door or cover shall be secured by a latch. The battery cables may not be spliced.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.14 Environmental climatic equipment.** All ambulances shall be equipped with a complete climate environmental system to supply and maintain clean air conditions and an inside temperature at a comfortable level in both driver and patient compartments. The various systems for heating, ventilating and air conditioning may be separate or combination systems that permit independent control of environment within each compartment. The driver and patient compartment environments may not be dependent upon one another in any way.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**Trans 309.15 Exterior ambulance lighting. (1) GENERAL LAMPS.** Ambulances shall be equipped with headlamps, directional signal lamps, tail lamps, stop lamps, parking lamps, side-marker lamps, license plate lamps, backup lamps, hazard warning lamps, clearance lamps and spot lamps meeting the requirements of ch. 347, Stats.

**(2) EMERGENCY WARNING LAMPS.** (a) All ambulances shall be equipped with warning lamps consisting of:

1. Except as provided in par. (b), 2 top-corner mounted alternating flashing red lamps facing forward with a white flashing light mounted at an equal distance between them;

2. Except as provided in par. (c), 2 top-corner mounted alternating flashing red lights facing to the rear;

3. Two top-corner mounted alternating flashing red lights facing to the right side;

4. Two top-corner mounted alternating flashing red lights facing to the left side; and

5. At least 2, red or red and white, flashing or rotating warning lamps located in, on, behind or in front of the vehicle's radiator grill. The lamps shall be designed and mounted so as to be plainly visible and understandable from a distance of 500 feet during both normal sunlight and hours of darkness.

(b) The lights required in par. (a) 1. may be replaced with a light bar with 2 or more rotating or flashing red or red and white lights which covers the same area.

(c) The lights required in par. (a) 2. may each be replaced with a rotating red light revolving or flashing on a horizontal plane.

(d) Emergency warning lamps may not be obstructed by open doors.

(e) Ambulance service providers may not be required to alter emergency warning lamps already installed on ambulances in service prior to November 1, 1986.

(f) The lamps shall be designed and mounted to be plainly visible and recognizable as emergency vehicle lights from a distance of 500 feet during both normal sunlight and hours of darkness.

**(3) FLOODLAMPS.** Sealed flood lighting units shall be located at the rear and on the left and right sides of the ambulance. Floodlamps shall be integrally mounted below the roof line but not less than 75 inches above the ground and may not be obstructed by open doors. Each flood lamp shall have a minimum of 800 candlepower output. Flood lighting at the rear shall be arranged to illuminate the ground area immediately surrounding the loading doors. The switches shall be shielded and shall control each side separately.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, April, 1987, No. 376; am. (1), (2) (a) 5., (b) and (e), Register, April, 1994, No. 460, eff. 5-1-94; am. (2) (b), (c) and (e), cr. (f), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.16 Interior ambulance lighting. (1) DRIVER COMPARTMENT.** The driver compartment shall be equipped with a dome lamp, instrument panel lamps and indicators, master switch panel or console lamps and door-open indicator. The lighting shall be designed and located so that no glare is reflected from surrounding areas to the driver's eyes or line of vision from instrument and switch control panels or other areas that are illuminated while the vehicle is in motion.

**(2) PATIENT COMPARTMENT.** The patient compartment shall be equipped with overhead or dome lighting and switch panel lighting. Only white colored lamps or lenses may be used in the patient compartment. Patient compartment lights shall be automatically activated when the entrance doors are opened or when otherwise controlled by the driver's master switch. Interior light fixtures may not protrude more than 1.5 inches. Fluorescent lights that operate on 12 volts may be used, but they may not extend more than 4 inches from the mounting surface. Fluorescent fixtures may be

mounted at the intersection of the ceiling and walls, and shall be equipped with removable covers that positively lock in place.

**(3) ILLUMINATION LEVELS.** Normal illumination in all patient areas shall be not less than 15 foot candle intensity measured along the entire center line of the clear floor without any outside ambient light. The primary cot and squad bench shall be provided with 35 to 55 foot candles of illumination measured on at least 90% of their surface. Lighting levels shall be controlled by the EMT with switches or with a fireproofed underwriter's laboratory approved rheostat.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (2) and (3), Register, April, 1994, No. 460, eff. 5-1-94; am. (2), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.17 Siren and public address system.**

**(1)** Each ambulance shall have an electric or electronic siren and amplified public address system. The siren or siren speakers shall be mounted below the windshield and forward of the front wheels. The siren shall produce wail and yelp sound patterns. The wail sound pattern shall have both automatic and manual controls.

**(1m)** The siren shall be activated by the steering wheel horn. The emergency light control panel shall have a switch marked "horn/siren" to activate either the vehicle's horn or siren. This subsection applies to all ambulances that are put in service July 1, 1999.

**(2)** Ambulance service providers may not be required to alter siren mountings already installed on ambulances in service prior to May 1, 1994.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; r. and rec. Register, April, 1994, No. 460, eff. 5-1-94; am. (1) and (2), cr. (1m), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.18 Communications. (1)** Each ambulance

shall have a permanently mounted radio to contact the hospital emergency department of the hospital it serves. There shall be a microphone and speaker permanently mounted in the patient compartment. The radio shall comply with ch. HFS 110.

**(2)** Each ambulance service provider operating ambulances staffed either wholly or partially with EMTs practicing advance skills shall have remote 2-way communications for personnel when they are away from the ambulance.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am., Register, April, 1994, No. 460, eff. 5-1-94; am. (2), Register, February, 1999, No. 518, eff. 4-1-99; correction in (1) made under s. 13.93 (2m) (b) 7., Stats.

**Trans 309.19 Lettering and markings on ambulances. (1)** Ambulances may be painted any color or combination of colors and shall bear the lettering and markings prescribed in sub. (2).

**(2)** The material for lettering and marking shall be a color contrasting with the color of the ambulance. The use of reflectorized material for the lettering and markings is preferred, but is not mandatory. The lettering and markings shall be of the type, size and location as follows:

**(a)** The word "AMBULANCE" or "RESCUE SQUAD" in block letters not less than 6 inches high shall be placed on each side and on the rear of the vehicle body.

**(b)** Reflectorized striping totaling not less than 4 inches shall encircle the entire ambulance body excluding the front end. The top edge of this stripe shall be no higher than 48 inches above the ground. This stripe may be broken up by wheel wells, hinges, handles, windows or lights. Reflectorized lettering may be included as part of this striping. This striping requirement shall apply to all units placed in service after June 1, 1994.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; renum. from Trans 309.20 and am., Register, April, 1994, No. 460, eff. 5-1-94; am. (1) and (2) (b), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.20 Smoking in ambulances.** No smoking may be allowed in any area of the ambulance at any time.

**History:** Cr. Register, February, 1999, No. 518, eff. 4-1-99.

### Subchapter III—Equipment Standards

#### **Trans 309.21 Stretchers, cots and restraints.**

(1) Every ambulance shall be equipped with one commercial elevating wheeled cot maintained in good working order made up with a sheet and a blanket, one bench seat or a non-elevating wheeled cot-bench, and a chair stretcher or a combination stretcher chair with legs and 2 wheels, designed to permit a patient to be carried on stairways and through other narrow areas. Each ambulance shall be equipped with a crash stable slide, center mounted, or equivalent cot fastener assembly of the quick release type to secure the elevating wheeled cot and the non-elevating wheeled cot-bench to the ambulance body. The cot fastener assembly shall be the manufacturer's approved bracket for the cot used.

(2) At least 3 strap-type restraining devices for the chest, hip and knee shall be provided for each stretcher, bench seat and cot to prevent longitudinal or transverse dislodgement of the patient during transit. Shoulder straps shall be required on the cot stretcher. Restraining straps shall be made of nylon or equivalent material and shall be at least 2 inches wide. The straps shall be constructed as a 2-piece assembly with quick release buckles and shall be removable for easy cleaning.

(3) Every ambulance shall be equipped with safety belts for the driver and each passenger in the driver compartment; a safety belt for the EMT's seat in the patient compartment; and 3 sets of safety belts for the bench seat or non-elevating wheeled cot-bench in the patient compartment.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am., Register, April, 1994, No. 460, eff. 5-1-94; am. (1), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.22 Suction aspirator system.** (1) An engine vacuum operated or electrically powered suction aspirator system shall be provided in the patient's compartment. The installed suction system shall be powerful enough to provide an air flow of at least 20 liters per minute at the end of the delivery tube and a vacuum of at least 300 millimeters of mercury to be reached within 4 seconds after the tube is clamped. The suction line shall be securely fastened to prevent damage, but shall remain accessible for inspection and repair. The engine vacuum type aspirator system shall be connected to a check valve and reservoir chamber having a volume of not less than 575 cubic inches, in line between the vacuum source and the aspirator. Aspiration suction shall be connected to a single, plug-in, self-sealing valve. The suction line connection shall be a labeled, plug-in outlet located near the oxygen outlets, but far enough away to permit easy handling of necessary component parts. The suction system shall include 2 mating outlet fittings or a yoke for the valve connection. The aspirator unit shall be securely mounted and located near the primary patient. The vacuum indicator gauge shall be capable of reading vacuum pressure up to 300 mm. Hg. The vacuum adjuster shut-off valves, either in combination or separately controlled, shall control vacuum setting within 10 mm. Hg. and discontinue aspiration instantly. The collecting bottle shall be nonbreakable and transparent with not less than 500 cc holding capacity. One spare nonbreakable suction collecting bottle shall be stored nearby if a disposable bag is not used. The following accessories shall be furnished and stored to be readily available, and shall be a single patient use item: one suction rinsing water bottle; one semi-rigid non-metallic pharyngeal suction tip; at least one spare suction tip and at least one adult and one infant catheter; one 6-foot length or more of translucent wide bore, nonkinking suction tubing, reasonably thick walled to prevent its collapse under high suction.

(2) Every ambulance shall be equipped with a portable suction unit providing a vacuum of at least 300 mm. Hg. and a free airflow

rate of at least 15 liters per minute. Units shall be battery powered units capable of providing at least 20 minutes of continuous operation at the required vacuum and flow levels. The portable suction unit shall be fitted with the following single patient use items: one 3-foot length or more wide bore, transparent, nonkinking suction tubing and a rigid nonmetallic pharyngeal suction tip and applicable accessories and controls.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am., Register, April, 1994, No. 460, eff. 5-1-94; am. Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.23 Oxygen equipment.** (1) (a) The ambulance shall have a hospital type piped oxygen system capable of storing and supplying a minimum of 120 cubic feet of medical oxygen. The main oxygen supply shall have a minimum of 500 PSI. The oxygen containers shall be secured in a storage compartment. The cylinder controls shall be accessible from inside the vehicle. The pressure gauge shall be visible inside the patient compartment. The piped oxygen system shall include a pressure regulator preset to 50 PSI line pressure installed at the cylinder, and nonferrous piping and low pressure hoses suitable for medical oxygen. Oxygen piping shall be concealed and not exposed to the elements or damage, securely supported, and readily accessible for inspection and replacement. Oxygen shall be piped to self-sealing outlets. One duplex oxygen outlet station for the primary patient shall be located on the action wall or a single outlet on the action wall and a single outlet on the ceiling above the cot, and one oxygen outlet for the secondary patient shall be located at the squad bench. The oxygen outlet for the primary and secondary patient shall be equipped with a plug-in flowmeter and delivery tube located within 40 inches of the EMT's seat. The flowmeter shall be capable of delivering at least 15 liters per minute.

(b) Ambulances wishing to carry liquid oxygen in place of, or in addition to, the main compressed gas oxygen system shall comply with sub. (1) (a), with the exception of the main oxygen supply needing to have a minimum of 500 PSI. Ambulances equipped with liquid oxygen shall have documentation available to the inspector as to the minimum gauge reading that is equivalent to 1000 liters of oxygen. The ambulance shall be equipped to allow the attendant to monitor the tank levels from inside the patient compartment.

(2) No water shall be stored in the oxygen system.

(3) A portable oxygen unit shall be carried. It shall be located near a patient compartment door and shall be accessible from outside of the ambulance. The portable oxygen unit shall have at least a 13 cubic foot container and shall be equipped with a yoke, a pressure gauge, a non-gravity dependent flowmeter, a delivery tube and oxygen masks. The portable oxygen supply shall have a minimum 500 PSI. The unit shall be capable of delivering an oxygen flow of at least 15 liters per minute. Portable cylinders or kits located in the patient compartment shall be secured with quick-release securing fittings. A full spare cylinder shall be stored in the ambulance. Oxygen masks shall be transparent and disposable.

(4) Each oxygen container shall be of the proper color to correspond with the color-coding system employed.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1) and (3), r. and recr. (4) Register, April, 1994, No. 460, eff. 5-1-94; renum. (1) to be (1) (a) and am., cr. (1) (b), am. (3), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.24 Medical and surgical equipment.** (1) All ambulances shall be equipped with the following:

(a) An automatic, semiautomatic or manual defibrillator as specified in the standard operating procedures approved by the medical director of the service, and included in the plan approved by the department of health and family services, with appropriately sized defibrillation or conduction pads. This paragraph applies to all "in-service" ambulances.

(am) Two transparent nonbreathing reservoir oxygen masks of each size, adult and child, and 2 infant size masks with adequate length tubing, and 2 adult nasal cannula. All masks, tubing and cannulas shall be single-patient use.

(b) One bag–valve–mask unit for each size, adult, child and infant. The bag shall be hand–operated, self–refilling with an accumulator capable of delivering an FiO<sub>2</sub> of 90%, and may not have a pop–off valve. The mask portion shall be transparent. The valve portion shall be clear, disposable and operable in cold weather. A child bag shall have a reservoir of approximately 450 ml., and an adult bag shall have a reservoir of at least 1000 ml.

(bm) All in–service ambulances shall have 2 approved advanced airways.

(br) All in–service ambulances shall carry epinephrine as specified in the standard operating procedures approved by the medical director of the service. The service shall carry 2 ampules with approved delivery devices or 2 preloaded syringes, or 2 adult and 2 child automatic injection devices.

(c) One set of oral airways from size 0 to 6.

(d) Six or more nasopharyngeal airways sized from 12 fr to 34 fr.

(dm) Water soluble lubricant.

(e) Not less than 6, 10 x 30 inch universal or trauma dressings.

(f) Fifty or more sterile gauze pads, 4 x 4 inches or larger.

(g) Twelve soft–rolled, self–adhering bandages, 3 inches wide or larger.

(h) Four sterile occlusive dressings at least 3 inches by 9 inches.

(i) Two rolls of medical tape, 2 inches or larger.

(j) Two clean burn sheets.

(k) Eight triangular bandages.

(L) Bandage shears, 7 inches or larger.

(m) One large adult, one regular adult and one child size blood pressure cuff calibrated to measure within + or –4 mm. Hg.

(n) One stethoscope.

(o) Traction splints. This requirement may be met by one of the following:

1. One adult commercial traction splint and documented methodology for the stabilization of a pediatric femur fracture signed by the ambulance provider's medical director with appropriate equipment.

2. One adult and pediatric commercial traction splint capable of immobilizing femur fractures in patients over the age of 4.

3. One adult and one pediatric traction splint.

(p) One short spine board or comparable adult extrication device with appropriate straps.

(q) Two long spine boards or comparable spinal immobilization device with appropriate straps.

(r) A child size spine board or comparable spinal immobilization device with appropriate straps.

(s) Splinting devices capable of rigid support and immobilization of a joint above and a joint below an injury made from an appropriate material, such as cardboard, metal, pneumatic, vacuum, wood or plastic, 2 at least 3 feet long, and 2 at least 15 inches long.

(t) Two liters of sterile saline irrigation solution in plastic containers.

(v) Obstetrical kit including all of the following:

1. Sterile gloves.

2. Scissors or disposable scalpels.

3. Two umbilical cord clamps.

4. Sterile dressings.

5. Towels.

6. Plastic bags.

7. Blanket or other appropriate heat–reflective material, enough to cover a newborn.

8. Bulb syringe.

(w) A laryngoscope and set of blades in adult and pediatric sizes, or disposable one–piece laryngoscopes in adult and pediatric sizes.

(wm) One adult and one pediatric size Magill forceps.

(wr) An orthopedic break apart stretcher.

(x) Rigid cervical collars; 2 adult, 2 child and 2 infant.

(xm) Infection control personal protective equipment and materials, including all of the following:

1. Three or more eye protection units (full peripheral glasses or shield).

2. Three or more surgical masks.

3. Three or more pairs of nonsterile gloves.

4. Three or more jumpsuits or gowns that are disposable and impervious to body fluids.

5. Three or more disposable shoe covers.

6. Hand wash of a commercial antimicrobial type, such as a towelette, spray or liquid.

7. At least one commercial sharps container.

8. Bio–hazard bags of identifiable color or markings, or both.

(xr) All services shall have latex–free equipment and supplies as directed by a protocol, approved by the services medical director for the treatment, care and used by latex–sensitive patients and attendants.

(y) Medications and drugs specified in the standard operating procedures approved by the medical director of the service. This shall include oral glucose in single patient use containers, and epinephrine as specified in the standard operating procedures approved by the medical director of the service, and included in the plan approved by the department of health and family services.

(z) Two cervical–head immobilizer devices capable of being attached to spine boards.

**(2)** The following are one patient–use items and shall remain sealed until the time of use. Unsealed containers of the following may not be kept:

- (a) Sterile saline solution.

- (b) Liquid oral glucose.

- (c) Epinephrine.

**(3)** In addition to the medical and surgical equipment specified in sub. (1), ambulances staffed with EMT–intermediates shall be equipped with the following:

- (a) Sterile intravenous infusion agents, in plastic containers, with necessary IV starting equipment, including an assortment of appropriately sized adult and pediatric IV catheters, including small sized catheters to at least 24 gauge.

- (b) Subcutaneous injection equipment.

- (c) Two advanced airways.

- (d) Prepackaged medications, drugs and solutions specified in the standard operating procedures approved by the medical director of the service and the department of health and family services.

**(4)** In addition to the medical and surgical equipment specified in subs. (1), (2) and (3), ambulances staffed by EMT–paramedics shall carry the following:

- (a) Electrocardiogram monitor with tape printout.

- (b) Two or more intraosseous needles.

- (c) Endotracheal intubation equipment as specified by the medical director of the service adequate to cover infants through adults.

- (d) Medications and drugs specified in the standard operating procedures approved by the medical director of the service and the department of health and family services.

- (e) One pediatric stethoscope.

- (f) Pediatric paddles or 2 sets of pads.

- (g) Pediatric and adult size endotracheal tube stylets.

(h) Length/weight-based drug dose chart or tape.

**(5)** No medications, drugs, fluids, solutions or containers shall be kept beyond their expiration date.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; am. (1) (a), (m), (p) and (q) and (1) (w) 3, renum. (1) (b) to be (1) (c), (1) (c) to (e) to be (1) (d) to (f), (1) (f) and (g) to be (1) (g) and (i) and am. (1) (g) and (i), (1) (h) to be (1) (j) and am. (1) (j), (1) (i) to be (1) (k) and am. (1) (k), (1) (j) to be (1) (L), (1) (r) to be (1) (s) and am. (1) (s), (2) and (3) to be (3) and (4) and am. (3) and (4), cr. (1) (b), (h) (r), (z), (za), (zb), (zc) and (zd) r. (1) (s), (z) and (za), (2) and (5) r. and recr. (1) (t), Register, April, 1994, No. 460, eff. 5-1-94; r. and recr. (1) (a), (b), (o), (s) and (4) (b), cr. (1) (am), (bm), (br), (dm), (v) 8., (xm), (xr), (y) and (4) (e) to (h), am. (1) (c), (d), (f), (h) to (k), (m), (q), (v) 7., (2) (intro.), (3) (a) and (d), (4) (c) and (d), r. (1) (u), (w), (zb), (zc), (2) (b) and (c), renum. (1) (x), (y), (z), (za), (zd), (2) (d) and (e) to be (1) (w), (wm), (wr), (x), (z), (2) (b) and (c) and am. (1) (wr), (2) (b) and (c), Register, February, 1999, No. 518, eff. 4-1-99.

**Trans 309.25 Standard mandatory miscellaneous equipment. (1)** All ambulances shall be equipped with the following:

(a) One 5-pound minimum fire extinguisher with a 10BC rating in a quick-release bracket, mounted in the cab section or an outside compartment and accessible from outside the ambulance.

(b) One 2-pound minimum fire extinguisher with a 10BC rating mounted in a bracket in the patient compartment.

(bm) One 5-pound minimum fire extinguisher with a 10BC rating mounted in a bracket in the patient compartment on all new ambulances put in service after April 1, 1999.

(c) "No Smoking" signs placed conspicuously in the cab and patient compartment.

(d) Two portable, battery operated lights.

(e) Three reflectors or 3 noncombustible red light sticks with a minimum of one-hour service duration.

(f) One 12-inch adjustable wrench.

(g) One screwdriver for slot head screws with a 1/4 inch blade.

(h) One #2 Phillips screwdriver.

(i) One hacksaw and 12-inch blades.

(j) One 10-inch locking grip pliers.

(k) One 16 oz. hammer.

(L) One 24-inch wrecking bar.

(m) Impact resistant eye protection.

(n) One pair of leather gloves.

(o) One roll of 2-inch duct tape.

(p) A spring loaded center punch.

**(2)** Small hand tools shall be stored in a single container and carried in an easily accessible area.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86; renum. from Trans. 309.25, am. (1) (a), renum. (1) (b) and (c) to be (1) (c) and (d), cr. (1) (b), (e) to (p) and (2), Register, April, 1994, No. 460, eff. 5-1-94; reprinted to restore dropped copy in (1) (g), Register, April, 1997, No. 496; cr. (1) (bm), am. (2), Register, February, 1999, No. 518, eff. 4-1-99.