# Title 204 WAC EQUIPMENT, COMMISSION ON

Chapters		204–12–010	Purpose. [Regulation 6401 (part), filed 12/16/63.]
204-08	Practice and procedure.		Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005,
204-10	Equipment standards.		46.37.194, 46.37.280, 46.37.310, 46.37.320 and
204-22	Standards for tire chains.		46.37.380.
204-24	Traction devices.	204–12–020	Standards. [Order 7304, § 204–12–020, filed
204-28	Slow-moving vehicles emblems.		11/25/75; Regulation 6401 (part), filed 12/16/63.]
204-29	Marking license plates.		Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005,
204-30	Sunscreen tint film decals.		46.37.194, 46.37.280, 46.37.310, 46.37.320 and
204-32	Regulations for private carrier buses.		46.37.380.
204-36	Authorized emergency vehicle permits.	204–12–030	Marking of containers. [Order 7304, § 204–12–030,
204-38	Flashing amber lamps.		filed 11/25/75; Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-
204-39	Trailer tongue lamps.		02), filed 8/21/81. Statutory Authority: RCW
204-40	Green lights on firemen's private cars.		46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320
204-41	Seat belt exemptions.	201 12 010	and 46.37.380.
204-44	Standards for load fastening devices.	204–12–040	Filling or reuse of containers. [Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008
204-48	Tires.		(Order 81–08–02), filed 8/21/81. Statutory
204-50	Ignition interlock breath alcohol devices.		Authority: RCW 46.37.005, 46.37.194, 46.37.280,
204-52	Motorcyclists' eye protection.		46.37.310, 46.37.320 and 46.37.380.
204-56	Procedures for measuring motor vehicle	204–12–050	Approval procedure. [Order 7304, § 204–12–050,
204-50	sound levels.		filed 11/25/75; Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-
204-60	Standards and specifications for additional		02), filed 8/21/81. Statutory Authority: RCW
204-00	lamps and flags for use on snow removal		46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320
	and highway maintenance equipment.	204-12-060	and 46.37.380.
204-62	Deceleration warning light.	204-12-000	Effective date. [Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-
204-64	Quartz halogen headlamps.		02), filed 8/21/81. Statutory Authority: RCW
204-65	Display of electronic messages.		46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320
204-70	Standards for vehicle connecting devices		and 46.37.380.
	AN SHAHRASH BANG HADA VACHERA BAC A GORRABACA HARAY ARAC VEN		
204-10			Chapter 204–16
	and towing methods.		Chapter 204–16 SEAT BELTS
204-72	and towing methods. Standards for mounting, adjusting, and		SEAT BELTS
204-72	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.	204–16–001	SEAT BELTS  Promulgation. [Regulation 6402 (part), filed
204-72 204-74A	and towing methods. Standards for mounting, adjusting, and aiming of lamps. Standards for school bus warning lamps.	204–16–001	SEAT BELTS  Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-
204-72 204-74A 204-76	and towing methods. Standards for mounting, adjusting, and aiming of lamps. Standards for school bus warning lamps. Standards for brake systems.	204–16–001	SEAT BELTS  Promulgation. [Regulation 6402 (part), filed
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204-72 204-74A 204-76	and towing methods. Standards for mounting, adjusting, and aiming of lamps. Standards for school bus warning lamps. Standards for brake systems. Standards for motorcycle headlamp modulator.	204–16–001	SEAT BELTS  Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402]
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204-72 204-74A 204-76 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed
204-72 204-74A 204-76 204-78 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94 DISPOSITION	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.  N OF CHAPTERS FORMERLY CODIFIED IN THIS TITLE  Chapter 204-12  HYDRAULIC BRAKE FLUID	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005,
204-72 204-74A 204-76 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.  NOF CHAPTERS FORMERLY CODIFIED IN THIS TITLE  Chapter 204-12  HYDRAULIC BRAKE FLUID  Promulgation. [Regulation 6401 (part), filed	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed
204-72 204-74A 204-76 204-78 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94 DISPOSITION	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.  NOF CHAPTERS FORMERLY CODIFIED IN THIS TITLE  Chapter 204-12  HYDRAULIC BRAKE FLUID  Promulgation. [Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.320 and 46.37.380.  Approval procedure. [Regulation 6402 (part), filed
204-72 204-74A 204-76 204-78 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94 DISPOSITION	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.  NOF CHAPTERS FORMERLY CODIFIED IN THIS TITLE  Chapter 204-12  HYDRAULIC BRAKE FLUID  Promulgation. [Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–080), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Approval procedure. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–08).
204-72 204-74A 204-76 204-78 204-80 204-82A 204-84 204-88 204-90 204-91A 204-92 204-93 204-94 DISPOSITION	and towing methods.  Standards for mounting, adjusting, and aiming of lamps.  Standards for school bus warning lamps.  Standards for brake systems.  Standards for motorcycle headlamp modulator.  Standards for headlamp flashing systems.  Motor vehicle sunscreening devices.  Standards for sirens.  Emergency vehicle lighting.  Minimum requirements for construction and equipment of special motor vehicles.  Towing businesses.  Wheelchair conveyances.  Assistance vans.  Reflectorized warning devices.  NOF CHAPTERS FORMERLY CODIFIED IN THIS TITLE  Chapter 204-12  HYDRAULIC BRAKE FLUID  Promulgation. [Regulation 6401 (part), filed 12/16/63.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW	204–16–010 204–16–020 204–16–030	Promulgation. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Previous regulation rescinded. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Purpose. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Standards. [Order 7601, § 204–16–030, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.380.  Installation. [Order 7601, § 204–16–040, filed 2/24/76; Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.320 and 46.37.380.  Approval procedure. [Regulation 6402 (part), filed

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204–16–060	46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. Effective date. [Regulation 6402 (part), filed 12/16/63.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.  Chapter 204–20 MOTORCYCLE HELMETS	204–20–140	Alteration of helmets. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. Effective date. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81–18–008 (Order 81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.
204–20–010	Definitions. [Regulation 6701 (part), filed 5/31/67,		Chapter 204-66
201 20 010	effective 7/1/67.] Repealed by 81-18-008 (Order		TOWING BUSINESSES
	81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320	204–66–010	Authority. [Order 7720, § 204-66-010, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85),
204-20-020	and 46.37.380.  Materials. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order		filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-010.
	81–08–02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320	204-66-020	Purpose. [Order 7720, § 204-66-020, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85),
204-20-030	and 46.37.380.  Required protection. [Regulation 6701 (part), filed		filed 10/1/85, effective 1/1/86. Statutory Authority:
204-20-030	5/31/67, effective 7/1/67.] Repealed by 81-18-008		1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204–91–020.
	(Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280,	204-66-030	Definitions. [Order 7720, § 204–66–030, filed 10/14/77.] Repealed by 85–20–100 (Order 003–85),
204-20-040	46.37.310, 46.37.320 and 46.37.380. Test samples. [Regulation 6701 (part), filed 5/31/67,		filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation,
	effective 7/1/67.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW	204–66–040	see WAC 204-91-030.  Application for letter of appointment. [Order 7720, §
	46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.	204-00-040	204-66-040, filed 10/14/77.] Repealed by 85-20-
20420050	Test conditions. [Regulation 6701 (part), filed		100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW
	5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory		46.37.005. Later promulgation, see WAC 204-91-040.
	Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.	204–66–050	Application form for letter of appointment. [Order 7720, § 204–66–050, filed 10/14/77.] Repealed by
20420060	Impact test. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order		85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW
	81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320	20466060	46.37.005. Inspections. [Statutory Authority: RCW 46.61.567.
204-20-070	and 46.37.380.  Penetration test. [Regulation 6701 (part), filed	20400000	80-10-006 (Order 80-07-01), § 204-66-060, filed
. 201 20 070	5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory		7/25/80. Statutory Authority: RCW 46.37.005. 80-02-093 (Order 7720K), \$ 204-66-060, filed 1/23/80.
	Authority: RCW 46.37.005, 46.37.194, 46.37.280,		Statutory Authority: 1977 ex.s. c 167. 78-08-079 (Order 7720B), § 204-66-060, filed 7/27/78; Order
204-20-080	46.37.310, 46.37.320 and 46.37.380. Retaining system test. [Regulation 6701 (part), filed		7720, \$ 204–66–060, filed 10/14/77.] Repealed by 85–20–100 (Order 003–85), filed 10/1/85, effective
	5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory		1/1/86. Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-
	Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.	204–66–070	070. Certification. [Order 7720, § 204–66–070, filed
204–20–090	Test equipment. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81-18-008		10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority:
	(Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280,		1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204–91–080.
204-20-100	46.37.310, 46.37.320 and 46.37.380.	204-66-080	Processing of application. [Statutory Authority: 1977
204-20-100	Calibration of test equipment. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by		ex.s. c 167. 78–10–016 (Order 7720C), § 204–66–080, filed 9/12/78; Order 7720, § 204–66–080, filed
	81-18-008 (Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194,		10/14/77.] Repealed by 85–20–100 (Order 003–85), filed 10/1/85, effective 1/1/86. Statutory Authority:
204-20-110	46.37.280, 46.37.310, 46.37.320 and 46.37.380. Reflector requirements. [Regulation 6701 (part), filed	204-66-090	1985 c 377 and RCW 46.37.005. Issuance of a letter of appointment. [Order 7720, §
	5/31/67, effective 7/1/67.] Repealed by 81-18-008 (Order 81-08-02), filed 8/21/81. Statutory		204-66-090, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86.
	Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.		Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-
204-20-120	Identification requirements. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81-18-	204-66-100	100. Suspension or revocation of letter of appointment.
	008 (Order 81-08-02), filed 8/21/81. Statutory	207-00-100	[Order 7720, § 204-66-100, filed 10/14/77.]
204 20 122	Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380.		Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority: 1985
204–20–130	Approval procedure. [Regulation 6701 (part), filed 5/31/67, effective 7/1/67.] Repealed by 81–18–008		c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-110.
	(Order 81-08-02), filed 8/21/81. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280,	20466110	Letter does not grant vested right. [Order 7720, § 204-66-110, filed 10/14/77.] Repealed by 85-20-
	46.37.310, 46.37.320 and 46.37.380.		100 (Order 003-85), filed 10/1/85, effective 1/1/86.

	Statutory Authority: 1985 c 377 and RCW		8/31/79.] Repealed by 90–18–045, filed 8/30/90,
204-66-120	46.37.005.  Procedure. [Statutory Authority: RCW 46.37.005. 79-09-093 (Order 7720H), § 204-66-120, filed	204–68–020	effective 9/30/90. Statutory Authority: RCW 34.05.220. Definitions. [Statutory Authority: RCW 46.37.005.
	8/31/79; Order 7720, § 204-66-120, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85),	201 00 020	79-09-092 (Order 7201A), \$ 204-68-020, filed 8/31/79.] Repealed by 90-18-045, filed 8/30/90,
	filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation,		effective 9/30/90. Statutory Authority: RCW 34.05.220.
204-66-130	see WAC 204-91-120. Appeal. [Order 7720, § 204-66-130, filed 10/14/77.]	204–68–030	Description of the Washington state commission on equipment. [Statutory Authority: RCW 46.37.005.
	Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority: 1985		79-09-092 (Order 7201A), § 204-68-030, filed 8/31/79.] Repealed by 90-18-045, filed 8/30/90,
204-66-140	c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-130.  Towing procedure. [Statutory Authority: RCW]	204–68–040	effective 9/30/90. Statutory Authority: RCW 34.05.220.  Operations and procedures. [Statutory Authority:
204-00-140	46.37.567 [46.61.567]. 83–11–028 (Order 83–05–01), § 204–66–140, filed 5/13/83. Statutory Authority:	204-08-040	RCW 46.37.005. 79–09-092 (Order 7201A), § 204–68–040, filed 8/31/79.] Repealed by 90–18–045,
	RCW 46.37.005. 79–11–107 (Order 7720J), § 204–66–140, filed 11/1/79; Order 7720, § 204–66–140,		filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 34.05.220.
	filed 10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory	204–68–050	Public records available. [Statutory Authority: RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-050,
	Authority: 1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-160.		filed 8/31/79.] Repealed by 90-18-045, filed 8/30/90, effective 9/30/90. Statutory Authority:
204–66–150	Tow zones. [Order 7720, § 204-66-150, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority:	204-68-060	RCW 34.05.220.  Public records officer. [Statutory Authority: RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-060,
	1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204–91–170.		filed 8/31/79.] Repealed by 90–18–045, filed 8/30/90, effective 9/30/90. Statutory Authority:
204–66–160	Minimum standards for tow trucks. [Statutory Authority: RCW 46.61.567, 80-10-006 (Order 80-	20468070	RCW 34.05.220. Office hours. [Statutory Authority: RCW 46.37.005.
	07-01), § 204-66-160, filed 7/25/80. Statutory Authority: 1977 ex.s. c 167. 79-05-109 (Order		79–09–092 (Order 7201A), § 204–68–070, filed 8/31/79.] Repealed by 90–18–045, filed 8/30/90,
	7720E), § 204-66-160, filed 5/2/79; 78-08-079 (Order 7720B), § 204-66-160, filed 7/27/78; Order 7720, § 204-66-160, filed 10/14/77.] Repealed by	204–68–080	effective 9/30/90. Statutory Authority: RCW 34.05.220. Requests for public records. [Statutory Authority:
	85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW	204-00 000	RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-080, filed 8/31/79.] Repealed by 90-18-045,
	46.37.005. Later promulgation, see WAC 204-91-180.		filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 34.05.220.
204–66–170	Tow truck classifications. [Statutory Authority: RCW 46.61.567. 80–10–006 (Order 80–07–01), § 204–66–	20468090	Copying. [Statutory Authority: RCW 46.37.005. 79–09–092 (Order 7201A), § 204–68–090, filed
	170, filed 7/25/80. Statutory Authority: 1977 ex.s. c 167. 78-08-079 (Order 7720B), § 204-66-170, filed 7/27/78; Order 7720, § 204-66-170, filed		8/31/79.] Repealed by 90–18–045, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 34.05.220.
	10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority:	204-68-100	Exemptions. [Statutory Authority: RCW 46.37.005. 79–09–092 (Order 7201A), § 204–68–100, filed
204-66-180	1985 c 377 and RCW 46.37.005. Vehicle towing operator qualifications. [Statutory		8/31/79.] Repealed by 90–18–045, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW
	Authority: RCW 46.37.005 and 46.61.567, 81-10-038 (Order 81-04-01), § 204-66-180, filed 4/30/81.	204–68–110	34.05.220. Review of denials of public records requests.
	Statutory Authority: RCW 46.37.005. 79-09-093 (Order 7720H), § 204-66-180, filed 8/31/79. Statutory Authority: RCW 46.61.562 through		[Statutory Authority: RCW 46.37.005. 79–09–092 (Order 7201A), § 204–68–110, filed 8/31/79.] Repealed by 90–18–045, filed 8/30/90, effective
	46.61.567. 79-01-077 (Order 7720D), § 204-66-180, filed 1/2/79; 78-08-079 (Order 7720B), § 204-66-	204–68–120	9/30/90. Statutory Authority: RCW 34.05.220. Protection of public records. [Statutory Authority:
	180, filed 7/27/78; Order 7720A, § 204–66–180, filed 11/18/77, effective 12/21/77; Order 7720, §		RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-120, filed 8/31/79.] Repealed by 90-18-045,
	204–66–180, filed 10/14/77.] Repealed by 85–20–100 (Order 003–85), filed 10/1/85, effective 1/1/86.	204 (8 120	filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 34.05.220.
	Statutory Authority: 1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204-91-190.	204–68–130	Request for information. [Statutory Authority: RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-130, filed 8/31/79.] Repealed by 90-18-045, filed
204–66–190	Penalties. [Order 7720, § 204-66-190, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85),		8/30/96, effective 9/30/90. Statutory Authority: RCW 34.05.220.
204 66 200	filed 10/1/85, effective 1/1/86. Statutory Authority: 1985 c 377 and RCW 46.37.005.	204–68–140	Adoption of form. [Statutory Authority: RCW 46.37.005. 79-09-092 (Order 7201A), § 204-68-140,
204–66–200	Effective date. [Order 7720, § 204-66-200, filed 10/14/77.] Repealed by 85-20-100 (Order 003-85), filed 10/1/85, effective 1/1/86. Statutory Authority:		filed 8/31/79.] Repealed by 90-18-045, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 34.05.220.
	1985 c 377 and RCW 46.37.005. Later promulgation, see WAC 204–91–200.		Chapter 204-74

#### STANDARDS FOR SCHOOL BUS WARNING LIGHTS

204-74-010 Promulgation. [Statutory Authority: RCW 46.37.290. 88-15-051 (Order 88-05-ESR), § 204-74-010, filed 7/18/88; 80-10-006 (Order 80-07-01), § 204-74-010, filed 7/25/80.] Repealed by 90-18-046, filed

204-68-010

Chapter 204-68

COMMISSION ON EQUIPMENT PUBLIC RECORDS

Purpose. [Statutory Authority: RCW 46.37.005. 79–09–092 (Order 7201A), § 204–68–010, filed

204–74–020	8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290. Purpose. [Statutory Authority: RCW 46.37.290. 80–		89-24-023, filed 11/30/89, effective 12/31/89. Statutory Authority: RCW 47.37.005 [46.37.005].
	10-006 (Order 80-07-01), \$ 204-74-020, filed 7/25/80.] Repealed by 90-18-046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW		Chapter 204–91 TOWING BUSINESSES
204-74-030	46.37.005 and 46.37.290. Scope. [Statutory Authority: RCW 46.37.290. 80–10–006 (Order 80–07–01), \$ 204–74–030, filed 7/25/80.] Repealed by 90–18–046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290.	204–91–010	Authority. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-010, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-010.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority:
204–74–040	Standards for warning lamps. [Statutory Authority: RCW 46.37.290. 88–15–051 (Order 88–05–ESR), § 204–74–040, filed 7/18/88; 80–10–006 (Order 80–07–01), § 204–74–040, filed 7/25/80.] Repealed by 90–18–046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290.	204-91-020	RCW 46.35.005 [46.37.005].  Purpose. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85–20–100 (Order 003–85), § 204–91–020, filed 10/1/85, effective 1/1/86. Formerly WAC 204–66–020.] Repealed by 89–14–015 (Order 89–04–ESR), filed 6/23/89. Statutory Authority: RCW
204–74–050	Mounting of lamps. [Statutory Authority: RCW 46.37.290. 80-10-006 (Order 80-07-01), § 204-74-050, filed 7/25/80.] Repealed by 90-18-046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290.	204-91-030	46.35.005 [46.37.005]. Definitions. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-030, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-030, Repealed by 89-14-015 (Order 20.04 ESP). Filed 6/23/89. Statutory, Authority
204–74–060	Aiming of lamps. [Statutory Authority: RCW 46.37.290. 80-10-006 (Order 80-07-01), § 204-74-060, filed 7/25/80.] Repealed by 90-18-046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290.	20491040	89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005]. Application for letter of appointment. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-040, filed 10/1/85, for the control of the co
204–74–070	Operation of lamps. [Statutory Authority: RCW 46.37.290. 80-10-006 (Order 80-07-01), § 204-74-070, filed 7/25/80.] Repealed by 90-18-046, filed 8/30/90, effective 9/30/90. Statutory Authority:	204–91–050	effective 1/1/86. Formerly WAC 204-66-040.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005]. Application. [Statutory Authority: RCW 46.37.005.
204-74-080	RCW 46.37.005 and 46.37.290. Effective date. [Statutory Authority: RCW 46.37.290. 80–10–006 (Order 80–07–01), § 204–74–080, filed 7/25/80.] Repealed by 90–18–046, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 46.37.005 and 46.37.290.	204-91-030	Application. [Statutory Authority: RCW 46.37.005. 87–16–033 (Order 87–02–ESR), § 204–91–050, filed 7/27/87. Statutory Authority: 1985 c 377 and RCW 46.37.005. 85–20–100 (Order 003–85), § 204–91–050, filed 10/1/85, effective 1/1/86.] Repealed by 89–14–015 (Order 89–04–ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].
	Chapter 204-82	204-91-060	Certificate of approval. [Statutory Authority: RCW
	RDS FOR MOTOR VEHICLE SUN SCREENING DEVICES		46.37.005. 87–16–033 (Order 87–02–ESR), § 204–91–060, filed 7/27/87. Statutory Authority: 1985 c 377 and RCW 46.37.005. 85–20–100 (Order 003–
204-82-010	Authority. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85-20-089 (Order 001-85), § 204-82-010, filed 10/1/85.] Repealed by 89-24-023, filed 11/30/89, effective 12/31/89. Statutory Authority: RCW 47.37.005 [46.37.005]. Later promulgation, see	204–91–070	85), § 204-91-060, filed 10/1/85, effective 1/1/86.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005]. Inspections. [Statutory Authority: 1985 c 377 and
204-82-020	WAC 204-82A-010. Purpose. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85-20-089 (Order 001-85), § 204-82-020, filed 10/1/85.] Repealed by 89-24-023, filed		RCW 46.37.005. 85–20–100 (Order 003–85), § 204–91–070, filed 10/1/85, effective 1/1/86. Formerly WAC 204–66–060.] Repealed by 89–14–015 (Order 89–04–ESR), filed 6/23/89. Statutory Authority:
	11/30/89, effective 12/31/89. Statutory Authority: RCW 47.37.005 [46.37.005]. Later promulgation, see WAC 204-82A-020.	204-91-080	RCW 46.35.005 [46.37.005]. Certification. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-
204–82–030	Scope. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85-20-089 (Order 001-85), § 204-82-030, filed 10/1/85.] Repealed by 89-24-023, filed 11/30/89, effective 12/31/89. Statutory Authority: RCW 47.37.005 [46.37.005]. Later promulgation, see	204–91–100	91-080, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-070.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005]. Issuance of a letter of appointment. [Statutory
204-82-040	WAC 204-82A-030.  Definitions. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85-20-089 (Order 001-85), § 204-82-040, filed 10/1/85.] Repealed by 89-24-023, filed 11/30/89, effective 12/31/89. Statutory		Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-100, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-090.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005
204-82-050	Authority: RCW 47.37.005 [46.37.005]. Later promulgation, see WAC 204-82A-040. Glazing locations and restrictions. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85-20-089 (Order 001-85), § 204-82-050, filed 10/1/85.] Repealed by 89-24-023, filed 11/30/89, effective 12/31/89. Statutory Authority: RCW 47.37.005	204–91–110	[46.37.005]. Suspension or revocation of letter of appointment. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85–20–100 (Order 003–85), § 204–91–110, filed 10/1/85, effective 1/1/86. Formerly WAC 204–66–100.] Repealed by 89–14–015 (Order 89–04–ESR), filed 6/23/89. Statutory Authority: RCW
204–82–060	[46.37.005]. Later promulgation, chapter 204–82A WAC. Certification by manufacturers. [Statutory Authority: RCW 46.37.430 and 46.37.005. 85–20–089 (Order 001–85), § 204–82–060, filed 10/1/85.] Repealed by	204–91–120	46.35.005 [46.37.005].  Procedure. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-120, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-120.] Repealed by 89-14-015 (Order

89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

Appeal. [Statutory Authority: 1985 c 377 and RCW 204-91-130 46.37.005. 85-20-100 (Order 003-85), § 204-91-130, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-130.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW

46.35.005 [46.37.005].

204-91-140 Complaints. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-140, filed 10/1/85, effective 1/1/86.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005]

204-91-150 Business office and business hours. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-150, filed 10/1/85, effective 1/1/86.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority:

RCW 46.35.005 [46.37.005].

Towing procedure. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-160 204-91-160, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-140.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

204-91-170 Tow zones. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-170, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-150.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

204-91-180 Minimum standards for tow trucks. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-180, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-160.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

204-91-190 Vehicle towing operator qualifications. [Statutory Authority: 1985 c 377 and RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-190, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-180.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

Effective date. [Statutory Authority: 1985 c 377 and 204-91-200 RCW 46.37.005. 85-20-100 (Order 003-85), § 204-91-200, filed 10/1/85, effective 1/1/86. Formerly WAC 204-66-200.] Repealed by 89-14-015 (Order 89-04-ESR), filed 6/23/89. Statutory Authority: RCW 46.35.005 [46.37.005].

#### Chapter 204-990

#### APPENDIX--SUBSTANTIVE REGULATIONS OF THE STATE COMMISSION ON EQUIPMENT

204-990 Appendix-Substantive regulations of the state commission on equipment. Repealed by 90-11-022, filed 5/9/90, effective 6/9/90. Statutory Authority: RCW 46.37.005.

#### Chapter 204-08 WAC PRACTICE AND PROCEDURE

WAC	
204-08-010	Definition.
204-08-020	Petitions for rule-making amendment or repeal.
20408030	Declaratory rulings.
204-08-040	Forms for declaratory rulings.
204-08-050	For promulgation, amendment, or repeal of commission regulations.
204-08-100	Procedure for obtaining approval of automotive equipment within the scope of RCW 46.37.005 and 46.37.320.

WAC 204-08-010 Definition. Whenever used in this title "commission," "commission on equipment," and "state commission on equipment" means the chief of the Washington state patrol.

[Statutory Authority: RCW 46.37.005. 87-16-032 (Order 87-01-ESR), § 204-08-010, filed 7/27/87; 78-08-078 (Order 7760), § 204-08-010, filed 7/27/78; Rule I, filed 3/21/60.]

WAC 204-08-020 Petitions for rule-making amendment or repeal. (1) Any interested person may petition the chief requesting the promulgation, amendment, or repeal of any regulation.

(2) Where the petition requests the promulgation of a regulation, the requested or proposed regulation must be set out in full. The petition must also include all the reasons for the requested regulation together with briefs of any applicable law. Where the petition requests the amendment or repeal of a regulation presently in effect, the regulation or portion of the regulation in question must be set out as well as the suggested amendment form if any. The petition must include all reasons for the requested amendment or repeal of the regulation.

(3) All petitions shall be considered by the chief and he/she may, order a hearing for the further consideration and discussion of the requested promulgation, amendment, repeal, or modification of any regulation.

(4) The chief shall notify the petitioning party within a reasonable time of the disposition, if any, of the peti-

[Statutory Authority: RCW 46.37.005. 88-03-031 (Order 88-01-ESR), § 204-08-020, filed 1/15/88; Rule II, filed 3/21/60.]

WAC 204-08-030 Declaratory rulings. (1) As prescribed in RCW 34.04.080, any interested person may petition the chief for a declaratory ruling. The chief shall consider the petition and within a reasonable length of time shall:

(a) Issue a nonbinding declaratory ruling; or

- (b) Notify the person that no declaratory ruling is to
- (c) Set a reasonable time and place for an oral hearing or the submission of written evidence upon the matter, and give reasonable notification to the person of the time and place for such hearing or submission and of the issues involved.

If a hearing as provided in subsection (c) is conducted, the chief shall within a reasonable time:

- (1) Issue a binding declaratory rule; or
- (2) Issue a nonbinding declaratory rule; or
- (3) Notify the person that no declaratory ruling is to be issued.

[Statutory Authority: RCW 46.37.005. 88-03-031 (Order 88-01-ESR), § 204-08-030, filed 1/15/88; 78-08-078 (Order 7760), § 204-08-030, filed 7/27/78; Rule III, filed 3/21/60.]

WAC 204-08-040 Forms for declaratory rulings. Any interested person petitioning the chief for a declaratory ruling pursuant to RCW 34.04.080, shall generally adhere to the following form for such purpose.

(1) At the top of the page shall appear the wording "Before the chief of the Washington state patrol." On

the left side of the page following the foregoing the following caption shall be set out: "In the matter of the petition of (name of petitioning part) for a declaratory ruling." Opposite the foregoing caption shall appear the word "petition."

- (2) The body of the petition shall be set out in numbered paragraphs. The first paragraph shall state the name and address of the petitioning party. The second paragraph shall state all rules or statutes that may be brought into issue by the petition. Succeeding paragraphs shall set out the state of facts relied upon in form similar to that applicable to complaints in civil actions before the superior courts of this state. The concluding paragraphs shall contain the prayer of the petitioner. The petition shall be subscribed and verified in the manner prescribed for verification of complaints in the superior courts of this state.
- (3) The original and two legible copies shall be filed with the agency. Petitions shall be on white paper  $8\ 1/2$ " by 11" in size.

[Statutory Authority: RCW 46.37.005. 88-03-031 (Order 88-01-ESR), § 204-08-040, filed 1/15/88; Rule IV, filed 3/21/60.]

WAC 204-08-050 For promulgation, amendment, or repeal of commission regulations. Interested persons petitioning the chief requesting a promulgation, amendment, or repeal of any regulations shall generally adhere to the following form for such purpose.

- (1) At the top of the page shall appear the wording "Before the chief of the Washington state patrol." On the left side of the page following the foregoing the following caption shall be set out: "In the matter of the petition of (name of petitioning party) for (state whether promulgation, amendment, or repeal) of rule (or rules)." Opposite the foregoing caption shall appear the word "petition."
- (2) The body of the petition shall be set out in numbered paragraphs. The first paragraph shall state the name and address of the petitioning party and whether the petitioner seeks the promulgation of new rule or rules, or amendment or repeal of existing rule or rules. The second paragraph, in the case of a proposed new rule or rules or amendment of an existing rule, shall state the desired rule in its entirety. Where the petition is for amendment, the new matter shall be underscored and the matter proposed to be deleted shall appear in double parentheses. Where the petition is for repeal of an existing rule such shall be stated and the proposed to be repealed shall either be set forth in full or shall be referred to by rule number. The third paragraph shall set forth concisely the reason for the proposal of the petitioner and shall contain a statement as to the interest of the petitioner in the subject matter of the rule. Additional numbered paragraphs may be used to give full explanation of the petitioners reasons for the action sought.
- (3) Petitions shall be dated and signed by the person or entity named in the first paragraph or by his attorney. The original and two legible copies of the petition shall be filed with the agency.

(4) Petitions shall be on white paper 8 1/2" by 11" in size.

[Statutory Authority: RCW 46.37.005. 88-03-031 (Order 88-01-ESR), § 204-08-050, filed 1/15/88; Rule V, filed 3/21/60.]

WAC 204-08-100 Procedure for obtaining approval of automotive equipment within the scope of RCW 46-.37.005 and 46.37.320. (1) Method for obtaining approval.

- (a) To obtain approval the petitioner must provide for submission of any lighting device, or other safety equipment, component, or assembly to any recognized organization or agency such as, but not limited to, the Vehicle Equipment Safety Commission, American National Standards Institute, Society of Automotive Engineers, and the American Association of Motor Vehicle Administrators, as the agent of the state commission on equipment, and for the issuance of an approved certificate by that recognized organization or agency to the state commission on equipment.
- (b) If any lighting device, or other safety equipment, component, or assembly cannot be submitted to the organization or agency named in the above paragraph (a), then the petitioner must submit to the state commission on equipment the following:
- (i) A copy of a test report from a nationally recognized testing laboratory certifying that the device meets the current specifications for that device as prescribed by the commission in chapter 204–10 WAC.
- (ii) A sample of the device as marketed when requested by the commission on equipment.
- (iii) Correspondence, test reports and samples are to be submitted to: Secretary, State Commission on Equipment, Washington State Patrol, General Administration Building AX-12, Olympia, Washington 98504.
- (2) Forms and files of the state commission on equipment. Certificates of approval shall be on forms provided by the secretary of the state commission on equipment and the files of the state commission on equipment shall be kept by the secretary of the state commission on equipment in the offices of the Washington state patrol.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–08–100, filed 8/21/81. Statutory Authority: RCW 46.37.005. 78–08–078 (Order 7760), § 204–08–100, filed 7/27/78; Rule VI, filed 3/21/60.]

### Chapter 204–10 WAC EQUIPMENT STANDARDS

WAC	
204-10-010	Promulgation.
204-10-020	Lighting devices.
204-10-030	Brake fluid.
204-10-040	Motorcycle helmets.
204-10-050	Seat belts.
204-10-055	Child restraint systems.
204-10-060	Glazing material.
204-10-070	Air conditioning units.
204-10-080	Emergency reflex reflectors.
204-10-090	Slow moving vehicle emblems.
204-10-100	Tire chains.
204-10-110	Traction devices.

204-10-120	Sirens.
204-10-130	Trailer hitches.
204-10-140	Motorcycle goggles, glasses, and face shields.
204-10-150	Load fastening devices.

WAC 204-10-010 Promulgation. By authority of RCW 46.37.005 and 46.37.320, the state commission on equipment hereby adopts the following rules setting forth standards for motor vehicle equipment for which approval is required in chapter 46.37 RCW.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204–10–010, filed 8/21/81.]

WAC 204-10-020 Lighting devices. (1) Federal Motor Vehicle Safety Standard 108 is hereby adopted by reference as the standard for the following lighting devices:

- (a) Headlamps
- (b) Taillamps
- (c) Stoplamps
- (d) License plate lamps
- (e) Turn signal lamps
- (f) Side marker lamps
- (g) Intermediate side marker lamps
- (h) Backup lamps
- (i) Identification lamps
- (i) Clearance lamps
- (k) Parking lamps
- (1) Reflex reflectors
- (m) Intermediate reflex reflectors
- (n) Intermediate side reflex reflectors
- (o) Intermediate side marker reflectors
- (p) Turn signal operating units
- (q) Turn signal flashers
- (r) Vehicular hazard warning signal operating units
- (s) Vehicular hazard warning signal flashers
- (2) Canadian Standards Association Standard D106.2 is hereby adopted by reference as the standard for the following lighting devices:
  - (a) Headlamps (quartz-halogen nonsealed beam).
- (i) Motorcycle headlamps may comply with either Federal Motor Vehicle Safety Standard 108 or Canadian Standard D106.2.
- (b) Fog lamps. Fog lamps may comply with either Standard D106.2 or SAE Standard J583d as set forth in subsection (3)(a) of this section.
- (3) Society of Automotive Engineers standards are hereby adopted by reference as the standard for the following lighting devices:
  - (a) Fog lamps (SAE J583d)
  - (b) Fog tail lamps (SAE XJ1319)
  - (c) Auxiliary driving lamps (SAE J581a)
- (d) Auxiliary low beam lamps (or auxiliary passing lamps) (SAE J582a)
  - (e) Spot lamps (SAE J591b)
  - (f) Cornering lamps (SAE J852b)
- (g) Supplemental high-mounted stop and rear turn signal lamps (SAE J186a)
  - (h) Side turn signal lamps (SAE J914b)
  - (i) 360 degree emergency warning lamps (SAE J845)

- (j) Flashing warning lamps for agricultural equipment (SAE J974)
- (k) Flashing warning lamps for authorized emergency, maintenance, and service vehicles (SAE J595b)
- (1) Flashing warning lamp for industrial equipment (SAE J96)
  - (m) Warning lamp alternating flashers (J1054)
- (n) Green lamp for use on volunteer fireman's private vehicle (SAE J595b) flashing warning lamps for authorized emergency, maintenance, and service vehicles.
- (i) Color of the lens shall be green as that color is described in SAE Standard J578d (Color specifications for electric signal lighting devices) rather than red or amber as specified in SAE J595b.
- (o) Side cowl, fender, or running board courtesy lamps (SAE J575g)
- (4) Standards promulgated by the commission on equipment for the following lighting devices shall be as set forth in the Washington Administrative Code chapters as indicated:
- (a) Deceleration alert lamp system (chapter 204-62 WAC)
  - (b) Headlamp modulator (chapter 204-78 WAC)
- (c) Headlamp flashing system (chapter 204-80 WAC)
- (d) School bus warning lamps (chapter 204-74 WAC).

[Statutory Authority: RCW 46.37.005. 83–11–028 (Order 83–05–01), § 204–10–020, filed 5/13/83. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–020, filed 8/21/81.]

WAC 204-10-030 Brake fluid. Federal Motor Vehicle Safety Standard 116 is hereby adopted by reference as the standard for brake fluid.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204-10-030, filed 8/21/81.]

WAC 204-10-040 Motorcycle helmets. Federal Motor Vehicle Safety Standard 218 is hereby adopted by reference as the standard for motorcycle helmets.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–040, filed 8/21/81.]

- WAC 204-10-050 Seat belts. (1) Federal Motor Vehicle Safety Standard 209 is hereby adopted by reference as the standard for seat belt assemblies.
- (2) Federal Motor Vehicle Safety Standard 210 is hereby adopted by reference as the standard for seat belt assembly anchorages.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–050, filed 8/21/81.]

WAC 204-10-055 Child restraint systems. Federal Motor Vehicle Safety Standard 213 is hereby adopted by reference as the standard for child restraint systems.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83–21–080 (Order 83-10-01), § 204-10-055, filed 10/19/83.]

WAC 204-10-060 Glazing material. Federal Motor Vehicle Safety Standard 205 is hereby adopted by reference as the standard for glazing materials.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–060, filed 8/21/81.]

- WAC 204-10-070 Air conditioning units. (1) Society of Automotive Engineers Recommended Practice SAE J639 is hereby adopted by reference as the standard for automotive air conditioning units.
- (2) Society of Automotive Engineers Standard SAE J51b is hereby adopted by reference as the standard for automotive air conditioning hose.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–070, filed 8/21/81.]

WAC 204-10-080 Emergency reflex reflectors. Federal Motor Vehicle Safety Standard 125, January 1, 1974, is hereby adopted by reference as the standard for emergency reflex reflector warning devices.

[Statutory Authority: RCW 46.37.440. 82–16–049 (Order 82–07–03), § 204–10–080, filed 7/29/82. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–080, filed 8/21/81.]

WAC 204-10-090 Slow moving vehicle emblems. Society of Automotive Engineers Standard SAE J943a is hereby adopted by reference as the standard for slow moving vehicle identification emblems. Mounting of the emblem shall be as set forth in chapter 204-28 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–090, filed 8/21/81.]

WAC 204-10-100 Tire chains. Standards for tire chains shall be as set forth in chapter 204-22 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–100, filed 8/21/81.]

WAC 204-10-110 Traction devices. Standards for traction devices (studs, winter traction tires) shall be as specified in chapter 204-24 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–110, filed 8/21/81.]

WAC 204-10-120 Sirens. Standards for sirens shall be as set forth in chapter 204-84 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380, 81–18–008 (Order 81–08–02), § 204–10–120, filed 8/21/81.]

WAC 204-10-130 Trailer hitches. Standards for trailer hitches shall be as set forth in chapter 204-70 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–130, filed 8/21/81.]

WAC 204-10-140 Motorcycle goggles, glasses, and face shields. Standards for motorcycle glasses, goggles, and face shields shall be as set forth in chapter 204-52 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204-10-140, filed 8/21/81.]

WAC 204-10-150 Load fastening devices. Standards for load fastening devices shall be as specified in chapter 204-44 WAC.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–10–150, filed 8/21/81.]

### Chapter 204–22 WAC STANDARDS FOR TIRE CHAINS

WAC

204-22-010 Promulgation.

204-22-020 Scope.

204-22-030 Link tire chains.

204-22-040 Cable tire chains.

204-22-050 Other tire chain devices.

WAC 204-22-010 Promulgation. By authority of RCW 46.37.005 and 46.37.420, the state commission on equipment hereby adopts the following standards for tire chains.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–22–010, filed 7/29/82.]

WAC 204-22-020 Scope. These standards shall apply to tire chains designed for and used upon a public roadway.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–22–020, filed 7/29/82.]

- WAC 204-22-030 Link tire chains. (1) Link type tire chains consist of at least two chain loops, one on each side of the tire, connected by evenly-spaced metal cross chains across the tire tread.
- (2) The National Association of Chain Manufacturers Tire Chain Specifications NACM-5179(TC) is hereby adopted by reference as the standard for link type tire chains.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–22–030, filed 7/29/82.]

WAC 204-22-040 Cable tire chains. This specification covers ladder-type cable tire chain assemblies designed for use on tires that have been manufactured in accordance with the standards of the Tire & Rim Association, Inc.; 3200 West Market Street; Akron, Ohio 44313. All cable tire chains shall be designed for use on tires mounted in accordance with specifications in SAE Recommended Practice J1232, Class S, and SAE Informational Report J683a. Oversized tires, snow tires, special service, or special traction tires, etc., may require chains of a larger size.

- (1) Classifications. Cable tire chains described in this specification shall be of the following types as specified for regular and restricted clearances:
  - (a) Passenger car
  - (b) Single light truck
  - (c) Heavy truck
  - (d) Special police and emergency vehicle
- (2) Definitions. For purposes of the section, the following definitions shall apply:
- (a) Cable laid rope. A compound laid rope consisting of several ropes or several layers of strands laid together into one rope.
- (b) Side cable. Stranded cable to complete one full circumference along the tire sidewall.
- (c) Fastener. Any suitable connecting device, secured to one end of a side cable so constructed that it can connect to the opposing end and be easily closed (engaged or fastened) and be readily opened (released) by hand.
- (d) Reinforced cross cables. Stranded cable wrapped or covered to provide increased resistance to abrasive wear. This covering may be either a hard drawn spring wire, a high-carbon steel wire or nylon type 6 or 12. The wrapped or covered cable shall be enclosed by traction reinforcement sleeves covering said cable essentially from side connector to side connector. Cross cable shall be of specified length and shall provide proper drape over the tire tread.
- (e) Cross cable fastener. Any suitable fastener used to attach each cross cable to the side cable. Fastener shall be constructed and assembled to prevent accidental detachment.
- (f) Cross cable traction reinforcement sleeves. Shall be constructed of the manufacturer's specified material and of suitable length and width to maximize traction, braking, cornering and longevity.
  - (3) Requirements.
- (a) Components. Cable tire chain assemblies shall consist of two side cables, or two outer and one inner side cable, with reinforced cross cables, cross cable fastener, and fasteners necessary to form a complete assembly.
  - (b) Material.
- (i) Stranded side and stranded cross cable wire shall be constructed of preformed galvanized high-carbon steel with a minimum of 450 pounds breaking strength with seven wires per strand and seven strands per cable. The lay shall be a right hand lay.
- (ii) Wire covering stranded cable shall be constructed of high-carbon plow steel wire with a minimum tensile strength of 230,000 pounds per square inch.
- (iii) Spring wire covering stranded cable shall be constructed of harddrawn spring wire with a minimum tensile strength of 200,000 pounds per square inch.
- (iv) Cables, spring, and plow wire must be manufactured in conformance to SAE Recommended Practice J113.
- (v) Cross cable fasteners shall be constructed of open hearth, electric furnace, or basic oxygen process steel.
- (vi) Metallic cross cable traction reinforcement sleeves shall be constructed of open hearth, electric furnace, or

- basic oxygen process steel and shall comply with the following American Society for Testing Materials (ASTM) standards: Standard E6 Bend Test, Standard E8 Tension Test, Standard E18 Test Methods for Rockwell Hardness, and Standard A568 Table of Chemical Content of Steel.
- (vii) Nonmetallic cross cable traction reinforcement sleeves shall be constructed of "Zytel" ST-801 nylon or its equivalent.
- (viii) All side cable fasteners are to be constructed of material that will allow easy installation and removal.
- (c) Spacing of cross cable. The first cross cable shall be attached to that point of each side cable nearest the fastener that will permit the fastener to lie in the proper plane when the assembled cable tire chain is applied to the tire. On single cable tire chains, the remainder of the cross cables shall be attached to the side cable at intervals designed to provide for at least one cross cable in contact with the roadway at all times. On dual—triple tire chains, the remainder of the cross cable shall be attached to the outer side cables at like intervals and to the inner side chain with opposing cross cables staggered at the same intervals.
  - (d) Tolerances.
- (i) Cross cable length. The inside length of all cross cable, including fasteners held in the same plane, shall be within a tolerance of minus 1/8 inch to plus 1/8 inch of the specified length indicated by the chain manufacturer's specifications. The length shall be measured by hanging the cross cable vertically on a horizontal pin and measuring the inside to inside length. The number of traction reinforcement sleeves in a cross cable may not vary from the number specified by the manufacturer.
- (ii) Side cable length. The length of all side cables shall be within tolerance of minus 1/8 inch to plus 1/2 inch of the length indicated by the chain manufacturer's specifications.
- (iii) Stranded cable size. Stranded cable size shall be subject to the following tolerances:
- (A) Material up to and including .094 inch (2.4 mm) diameter shall not be less than the designated diameter and shall not exceed .010 inch (.25 mm) over the specified diameter.
- (B) Material over .094 inch (2.4 mm) diameter shall not be less than the specified diameter and shall not exceed .014 inch (.36 mm) over the specified diameter.
- (e) Component dimensions. The dimensions of manufactured components may vary, but the assembled cable chains must meet the tolerances specified in items (d)(i), (ii) and (iii).
- (f) Finish. All cable tire chains shall have a rust-resistant finish for protection in transit and storage.
- (g) Identification. Each half set of cable tire chains shall be permanently marked with the manufacturing company's name, initials or trademark in order that it may be easily identified when not in the original container.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–22–040, filed 7/29/82.]

WAC 204-22-050 Other tire chain devices. From time to time, new technology or materials allow the invention or manufacture of devices having the same effect on a tire as tire chains but different in concept or design. Standards for such other tire chain devices shall be set by the commission upon petition by a party for approval of the device.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–22–050, filed 7/29/82.]

### Chapter 204-24 WAC TRACTION DEVICES

WAC	
204-24-020	Standards for tire chains.
204-24-030	Standards for studded tires.
204-24-040	Traction devices.
204-24-050	Use of tire chains or other traction devices.
204-24-060	Period of use.
204-24-070	Approval of tire chains or traction devices.

WAC 204-24-020 Standards for tire chains. Standards for tire chains shall be as set forth in chapter 204-22 WAC.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–24–020, filed 7/29/82; Order 7607, § 204–24–020, filed 9/14/76; Order 6902, § 204–24–020, filed 12/19/73; Order 6902, § 204–24–020, filed 2/17/70.]

### WAC 204-24-030 Standards for studded tires. Studded tires shall meet the following specifications:

(1) Studs shall be metal, tipped with tungsten carbide.

(2) Metal studs shall be inserted only in a new tire or a newly-recapped tire which has molded in the tread the "pin-holes" into which metal studs are to be inserted. Studs shall not be inserted in any new tire or newly-recapped tire after it has been driven on a vehicle.

(3) Metal studs may be installed only by the tire manufacturer, or by a tire dealer or tire jobber who shall install the metal studs in conformance with the manufacturer.

facturer's specifications.

(4) When a tire is sold or offered for sale as a studded tire or when studs are installed in a new tire or a newly-recapped tire, there shall be a minimum of seventy metal studs evenly spaced around the tread of the tire.

- (5) A tire shall contain a minimum of fifty-six metal studs at all times in order to qualify as a "studded tire" or as an approved traction device where traffic control signs marked "chains" or "snow tires required" are posted.
- (6) Metal studs shall not be installed in any tire of a vehicle which has a gross vehicle weight of ten thousand pounds or over.
- (7) School buses and fire department equipment tires are exempt from Item (6) of this regulation.

[Statutory Authority: RCW 46.37.420. 83-21-080 (Order 83-10-01), § 204-24-030, filed 10/19/83; Order 7607, § 204-24-030, filed 9/14/76; Order 6902, § 204-24-030, filed 2/17/70.]

WAC 204-24-040 Traction devices. The following equipment items are approved by the commission on equipment for use as traction devices wherever traction

devices are required by the department of transportation:

- (1) Tire chains meeting the standards in chapter 204–22 WAC.
- (2) Studded tires meeting the standards in WAC 204-24-030.
- (3) Snow tires. An approved snow tire shall have the following tread characteristics:
- (a) A minimum of 4/32 inch tread, measured in the center portion of the tire at three locations equally spaced around the circumference of the tire.
- (b) A relatively aggressive tread pattern designed primarily to provide additional starting, stopping, and driving traction on snow or ice. The tread shall have ribs, lugs, blocks or buttons the edges of which are at an angle greater than thirty degrees to the tire circumferential centerline.
- (c) On at least one side of the tread design, the shoulder lugs protrude at least 1/2-inch in a direction generally perpendicular to the direction of travel.
- (d) Tires manufactured to meet these specifications shall be permanently labeled on at least one sidewall with the words "mud and snow" or any contraction using the letters "M" and "S" (e.g. MS, M/S, M-S, M & S, etc.).
- (4) Special tires specifically designed to improve stopping, traction, and cornering abilities of the tire on ice or snow may be approved by the commission on equipment as an approved traction device.

[Statutory Authority: RCW 46.37.420. 83–21–080 (Order 83–10–01), § 204–24–040, filed 10/19/83. Statutory Authority: RCW 46.37.005. 82–11–045 (Order 82–05–01), § 204–24–040, filed 5/12/82; Order 7607, § 204–24–040, filed 9/14/76; Order 6902, § 204–24–040, filed 2/17/70.]

## WAC 204-24-050 Use of tire chains or other traction devices. (1) Vehicles under 10,000 pounds gross vehicle weight.

- (a) When traffic control signs marked "snow tires required" are posted by the department of transportation it shall be unlawful for any vehicle to enter the controlled area without having mounted on its drive wheels at least one of the traction devices meeting the requirements of WAC 204-24-040.
- (b) When traffic control signs marked "chains required" are posted by the department of transportation it shall be unlawful for any vehicle to enter the controlled area without having mounted on its drive wheels tire chains meeting the standards in chapter 204–22 WAC.
- (i) Exception for all wheel drive vehicles. When "chains required" signs are posted, all—wheel drive vehicles shall be exempt from the chain requirement when all wheels are in gear and are equipped with approved traction devices as specified in WAC 204-24-040 provided that tire chains for at least one set of drive wheels are carried in the vehicle.
- (2) Vehicles or combinations of vehicles over 10,000 pounds gross vehicle weight.
- (a) When traffic control signs marked "snow tires required" or "chains required" are posted by the department of transportation it shall be unlawful for any

vehicle or combination of vehicles to enter the controlled area without having mounted on its wheels tire chains as follows:

- (i) Single vehicles, including but not limited to trucks, truck-tractors, buses and school buses: A minimum of two drive tires chained, one on each side of the vehicle, both on the same axle.
- (ii) Two vehicle combinations, including but not limited to truck and trailer, or truck tractor and semitrailer: A minimum of two drive wheels chained, one on each side of the vehicle and both on the same axle, and one trailer wheel chained on the last axle of the trailer. If the trailer or semitrailer has tandem rear axles, the chained wheel may be on either of the last two axles.
- (iii) Three-vehicle combinations, including but not limited to truck tractor, semi-trailer and full trailer: A minimum of four drive wheels chained and two trailer wheels chained. The trailer wheel chains shall be on the last trailer in the combination and at least one such chain shall be on a tire on the last axle, or if the trailer has tandem rear axles, the chained wheel may be on either of the last two axles.
- (iv) Combinations of vehicles specially permitted to carry over 80,000 pounds gross vehicle weight: A minimum of four drive wheels chained, and one trailer wheel chained. The trailer wheel chain shall be on the last axle of the trailer. Except in three vehicle combinations, the requirements of 204–24–050 (2)(a)(iii) shall prevail.
- (b) All vehicles over 10,000 pounds gross vehicle weight shall carry a minimum of two extra chains for use in the event that road conditions require the use of more chains than the minimums stated in subsection (2)(a) of this section or in the event that chains in use are broken or otherwise made useless: *Provided*, That highway maintenance vehicles operated by the department of transportation for the purpose of snow removal and its ancillary functions are exempt from this requirement.
- (c) Approved chains for vehicles over 10,000 pounds gross vehicle weight shall have at least two side chains to which are attached sufficient cross chains of hardened metal so that at least one cross chain is in contact with the road surface at all times. Plastic chains shall not be allowed. The commission on equipment may approve other devices as chains if the devices are equivalent to regular chains in performance.
- (d) One [On] the following routes all vehicles and combinations of vehicles over 10,000 pounds shall carry sufficient tire chains to meet the requirements of this chapter from November 1 to April 1 of each year or at other times when chains are required for such vehicles:
  - (i) I-90 from North Bend to Cle Elum.
  - (ii) SR-97 from SR-2 to I-90.
  - (iii) SR-2 from Index to Leavenworth.
  - (iv) SR-12 from Packwood to Naches.
  - (v) SR-97 from the Columbia River to Toppenish.
  - (vi) SR-410 from Enumelaw to Naches.

Vehicles making local deliveries as indicated on bills of lading and not crossing the mountain pass are exempt from this requirement if operating outside of a chain required area. (3) The Washington state department of transportation or Washington state patrol may prohibit any vehicle from entering a chain/snow tire control area when it is determined that the vehicle will experience difficulty in safely traveling the area.

[Statutory Authority: RCW 46.37.420. 83–21–080 (Order 83–10–01), § 204–24–050, filed 10/19/83. Statutory Authority: RCW 46.37.005. 82–11–045 (Order 82–05–01), § 204–24–050, filed 5/12/82. Statutory Authority: RCW 46.37.005 and 46.37.420. 81–10–038 (Order 81–04–01), § 204–24–050, filed 4/30/81; 78–02–091 (Order 7607A), § 204–24–050, filed 1/30/78; Order 7607, § 204–24–050, filed 9/14/76; Order 6902, § 204–24–050, filed 2/17/70.]

WAC 204-24-060 Period of use. Studded tires, regardless of the number of metal studs remaining in the tire, shall not be used between April 1 and November 1 of each year unless the state highway commission has determined additional periods in which they may be used.

[Order 7607, § 204-24-060, filed 9/14/76; Order 6902, § 204-24-060, filed 2/17/70.]

WAC 204-24-070 Approval of tire chains or traction devices. Any tire chain, wheel chains, studded tires, or other traction devices meeting the standards in chapter 204-22 WAC, WAC 204-24-030, and 204-24-040 shall be considered as an approved type chain, studded tire, or other traction device by the commission on equipment.

[Statutory Authority: RCW 46.37.420. 83–21–080 (Order 83–10–01), § 204–24–070, filed 10/19/83; 78–02–091 (Order 7607A), § 204–24–070, filed 1/30/78; Order 7607, § 204–24–070, filed 9/14/76.]

### Chapter 204–28 WAC SLOW-MOVING VEHICLES EMBLEMS

WAC

204-28-020 Standards for emblems.

204-28-030 Mounting standards.

204-28-040 Use of emblem on other classes of vehicles.

204–28–050 Approval of emblems.

WAC 204-28-020 Standards for emblems. To comply with the provisions of RCW 46.37.160(6), slow—moving vehicle emblems shall be constructed in conformance with the society of automotive engineers standard for, "slow—moving vehicle identification emblem," in effect at the time of manufacture of such emblems. All sections of the society of automotive engineers standard shall be applicable except for mounting instructions. Copies of the current standard shall be available from the State Commission on Equipment, Washington State Patrol, General Administration Building, Olympia, Washington 98501, or directly from the Society of Automotive Engineers, Inc., Two Pennsylvania Plaza, New York, New York 10001.

[Order 6901, § 204-28-020, filed 2/17/70.]

WAC 204-28-030 Mounting standards. After January 1, 1970 every farm tractor, every self-propelled unit of farm equipment, every implement of husbandry designed for operation at speeds not in excess of twenty-

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five miles per hour and every combination of farm tractor and towed farm equipment or towed implement of husbandry normally operated at speeds not in excess of twenty-five miles per hour shall at all times be equipped with a slow-moving vehicle emblem mounted as follows:

- (1) The emblem shall be mounted point up in plane perpendicular to the direction of travel of the vehicle so that the reflectorized side of the emblem is facing to the rear.
- (2) The emblem shall be mounted, as nearly as is practicable, centrally at the rear of the vehicle in an unobscured location.
- (3) The emblem shall be mounted not less than two feet nor more than six feet above the ground on which the vehicle stands measured from the lower edge of the emblem.
- (4) The emblem may be permanently attached to the vehicle. Where portable brackets are used, they shall be so constructed that they will hold the emblem securely and in a position meeting the requirements of mounting instructions (1), (2) and (3).
- (5) Where the towed unit is sufficiently large to obscure the slow-moving vehicle emblem on the farm tractor, the towed unit shall be equipped with a slow-moving vehicle emblem. In such cases, the towing vehicle need not display the emblem.
- (6) Where the slow-moving vehicle emblem on the farm tractor unit is not obscured by the towed unit, then either or both may be equipped with the required emblem but it shall be sufficient if either has it.
- (7) The emblem shall not replace any of the required lamps or other devices required in RCW 46.37.160 nor shall the emblem be used as a clearance marker for wide equipment.

[Order 6901, § 204-28-030, filed 2/17/70.]

WAC 204-28-040 Use of emblem on other classes of vehicles. Other classes of vehicles not covered by RCW 46.37.160 such as road construction vehicles and road maintenance vehicles which normally operate at a speed of twenty-five miles per hour or less may be equipped with slow-moving vehicle emblems meeting the standards of WAC 204-28-020 and mounted in accordance with WAC 204-28-030. Emblems so used shall not replace any of the lamps or other devices required by chapter 46.37 RCW.

[Order 6901, § 204-28-040, filed 2/17/70.]

WAC 204-28-050 Approval of emblems. Slowmoving vehicle emblems constructed to meet the standards in WAC 204-28-020 shall be considered as an approved type by the state commission on equipment.

[Order 6901, § 204-28-050, filed 2/17/70.]

#### Chapter 204-29 WAC MARKING LICENSE PLATES

WAC 204-29-010 Marking license plate. marking a Washington state license plate under RCW 46.16.710(1), the law enforcement officer shall apply a 1.25" x 3.4" adhesive label in the upper right-hand corner of the rear license plate. The adhesive label shall be coated with alternating red and yellow stripes of reflectorized material. The adhesive labels may be assigned serial numbers for internal accounting purposes by the law enforcement agency. [Statutory Authority: RCW 46.16.710. 89-10-016 (Order 89-02-

WAC 204-29-010 Marking license plate. When

RD), § 204-29-010, filed 4/24/89.]

#### Chapter 204-30 WAC SUNSCREEN TINT FILM DECALS

WAC	•
204-30-010	Authority.
204-30-020	Purpose.
204-30-030	Scope.
204-30-040	Definitions.
204-30-050	Decal material, dimensions and characteristics.
204-30-060	Decal information requirements.
204-30-070	Decal mounting requirements.
204-30-080	Tint manufacturer requirements.

WAC 204-30-010 Authority. This chapter is promulgated pursuant to chapter 95, Laws of 1990.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-010, filed 6/18/90, effective 7/19/90.]

WAC 204-30-020 Purpose. The purpose of this chapter is to establish standards for window tint decals that are required for vehicles equipped with film sunscreen materials.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-020, filed 6/18/90, effective 7/19/90.]

WAC 204-30-030 Scope. The standards established by this chapter apply to all film sunscreen decals installed pursuant to chapter 95, Laws of 1990.

[Statutory Authority: RCW 46.37.430, 90-13-060 (Order 90-06-ES). § 204-30-030, filed 6/18/90, effective 7/19/90.]

- WAC 204-30-040 Definitions. (1) Decal. A label, provided by film sunscreen manufacturers, that indicates the percentage of light transmission and light reflectance of the sunscreen film installed on a vehicle.
- (2) Installer. A person, who for personal or commercial purposes, installs sunscreen film on one or more windows of a motor vehicle.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204–30–040, filed 6/18/90, effective 7/19/90.]

WAC 204-30-050 Decal material, dimensions and characteristics. Sunscreen film decals shall be one and one-half inches high and two inches long and shall be made of a durable material that will withstand the weather and wear expected for motor vehicle driver's door striker posts. The "punch-out dots" shall be perforated for easy removal with a pencil point or other sharp object.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-050, filed 6/18/90, effective 7/19/90.]

WAC 204-30-060 Decal information requirements. Sunscreen film decals shall indicate the make and model of film, the percentage of light transmission and light reflectance. Additionally, the decal shall have small "punch—out dots" to record the specific windows in the vehicle that the tint film has been installed on. The dot system shall be as follows:

FRONT - W R L (W=WINDSHIELD, R=RIGHT SIDE, L=LEFT SIDE)
REAR - R L B (R=RIGHT SIDE, L=LEFT SIDE, B=BACK)

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-060, filed 6/18/90, effective 7/19/90.]

WAC 204-30-070 Decal mounting requirements. (1) The decal or decals shall be mounted on the driver's door striker post below the door latch.

- (2) A separate decal shall be mounted as described above for each type of film material installed on a vehicle.
- (3) In the event that a decal is destroyed or the information on it is obliterated it shall be removed and replaced.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-070, filed 6/18/90, effective 7/19/90.]

WAC 204-30-080 Tint manufacturer requirements. The tint manufacturer shall, no later than October 1, 1990, make available a supply of decals for each model of tint manufactured to all wholesale and retail outlets where it is or has been sold. Owners of motor vehicles with the model tint installed shall be provided the decals without cost. The manufacturer shall also ensure that instructions for correct decal application are provided.

[Statutory Authority: RCW 46.37.430. 90-13-060 (Order 90-06-ES), § 204-30-080, filed 6/18/90, effective 7/19/90.]

### Chapter 204–32 WAC REGULATIONS FOR PRIVATE CARRIER BUSES

WAC	
204-32-010	Definitions.
204-32-020	Standards for signal lamps.
204-32-030	Standards for stop signal.
204-32-040	Mounting and activation of warning devices.
204-32-050	Identification signs.
204-32-060	Warning sign.
204-32-070	Color of turn signal and stop lamps.
204-32-080	Use of warning devices.
204-32-090	Stops at railroad crossings.
204-32-100	Inspection of buses.
204-32-110	Bus stops and routing.
204-32-120	Effective date.

WAC 204-32-010 Definitions. (1) "Private carrier bus" means every motor vehicle designed for the purpose of carrying passengers (having a seating capacity for eleven or more persons) used regularly to transport persons in furtherance of any organized agricultural, religious or charitable purpose. Such term does not include buses operated by common carriers under a franchise

granted by any city or town or the Washington public utilities commission.

- (2) "Stop signal" means a sign bearing the word "STOP" which is actuated by the driver of the bus.
- (3) "Signal lamps" means red lamps mounted on the vehicle to be used in conjunction with the "stop signal" when the bus is loading or unloading passengers under certain conditions.
- (4) "Warning sign" means a sign to be attached to the rear of the bus to inform following motorists of their duty to stop when the "signal lamps" are activated.

[Order 7001, § 204-32-010, filed 6/10/70, effective 7/15/70.]

WAC 204-32-020 Standards for signal lamps. The signal lamps required on private carrier buses shall be constructed in conformance with the society of automotive engineers standard for "school bus red signal lamps," in effect at the time of manufacture of such lamps. All lamps used as signal lamps shall be of a type approved by the state commission on equipment.

[Order 7001, § 204-32-020, filed 6/10/70, effective 7/15/70.]

WAC 204-32-030 Standards for stop signal. The stop signal required on private carrier buses shall be 14 inches vertically and 18 inches horizontally and shall be treated with red reflective material. The word "STOP" shall be painted on the sign in white with letters which are a minimum of 8 inches in height and having a 3/4-inch stroke. Both sides of the sign shall be treated in the same manner and bear the same legend.

[Order 7001, § 204-32-030, filed 6/10/70, effective 7/15/70.]

### WAC 204-32-040 Mounting and activation of warning devices. (1) Stop signal

- (a) The stop signal shall be mounted on the left side of the bus just below the window line and adjacent to the driver of the bus.
- (b) The stop signal shall be hinged at the front edge of the sign.
- (c) The stop signal shall be manually controlled by the driver of the bus and shall be so constructed as to lock in an extended position perpendicular to the side of the bus and to also lock in the closed position parallel to the side of the bus.
  - (2) Signal lamps
- (a) The signal lamps shall be mounted on the front and rear of the bus, above the windows, as high and as widely spaced laterally as practicable but in no case shall the lateral spacing of these lamps be less than 40 inches.
- (b) Signal lamps shall be mounted so that the vision of front signals to the front and rear signals to the rear shall be unobstructed by any part of the vehicle from 5 degrees above to 10 degrees below the horizontal and from 30 degrees to the right to 30 degrees to the left of the center line of the bus.
- (c) The switch which activates the signal lamps shall be actuated by movement of the stop signal to the extended position.

- (d) There shall be no switch between the signal lamps and the switch which activates these lamps when the stop signal is extended.
- (e) There shall be a flashing red indicator lamp on the instrument panel of the vehicle which will indicate to the driver that the signal lamps are operating.
- (f) The signal lamps shall operate through a flasher unit which will cause the front signal lamps to flash alternately and the rear signal lamps to flash alternately at a rate no slower than 60 nor faster than 120 times per minute. The "on" period of the flasher shall be long enough to permit the bulb filament to come up to a full brightness.
- (g) Signal lamps shall be aimed 2 inches below level at 25 feet and straight ahead. An aiming tolerance of from 3 inches up to 7 inches down and 10 inches right or left will be allowed.

[Order 7001, § 204-32-040, filed 6/10/70, effective 7/15/70.]

WAC 204-32-050 Identification signs. Every private carrier bus shall bear on the front and rear thereof plainly visible signs containing the words "PRIVATE CAR-RIER BUS" in letters not less than 8 inches in height. The lettering shall be at least 3/4 inch stroke. These signs shall be located above the windshield on the front of the bus and above the rear windows on the rear of the bus.

[Order 7001, § 204-32-050, filed 6/10/70, effective 7/15/70.]

WAC 204-32-060 Warning sign. Every private carrier bus shall be equipped with a sign on the rear of the bus which shall bear the words "UNLAWFUL TO PASS BUS WHEN RED LIGHTS FLASH." The sign shall be 16 inches vertically and 32 inches horizontally. The sign shall have a background of silver retrodirective-reflex reflective sheeting. The lettering shall all be size 3 inch B. Line one shall have the letters "UNLAWFUL TO" in black. Line two shall have the letters "PASS BUS WHEN" in black. Line three shall have the letters "RED LIGHTS FLASH" in

[Order 7001, § 204–32–060, filed 6/10/70, effective 7/15/70.]

WAC 204-32-070 Color of turn signal and stop lamps. To avoid confusion with signal lamps and the message on the warning sign, rear turn signal lamp and stop lamp lenses shall be amber in color.

[Order 7001, § 204-32-070, filed 6/10/70, effective 7/15/70.]

WAC 204-32-080 Use of warning devices. The stop signal and signal lamps shall only be actuated by the driver of a private carrier bus whenever, but only whenever, such vehicle is stopped on the highway for the purpose of receiving or discharging passengers, except:

- (1) When the passengers boarding or alighting do not have to cross a highway and the bus is stopped completely off the main traveled portion of the roadway; or
- (2) When the bus is stopped at an intersection or place where traffic is controlled by a traffic officer or official control signal.

[Order 7001, § 204-32-080, filed 6/10/70, effective 7/15/70.]

- WAC 204-32-090 Stops at railroad crossings. (1) The driver of any private carrier bus, carrying any passenger, before crossing at grade any track or tracks of a railroad, shall stop such vehicle within fifty feet but no less than fifteen feet from the nearest rail of such railroad and while so stopped shall listen and look in both directions along such track for any approaching train, and for signals indicating the approach of a train and shall not proceed until he can do so safely.
- (2) After stopping as required and upon proceeding when it is safe to do so the driver of any private carrier bus shall cross only in such gear of the vehicle that there will be no necessity for changing gears while traversing such crossing and the driver shall not shift gears while crossing the track or tracks.
- (3) No stop need be made at any such crossing where a police officer or a traffic-control signal directs traffic to proceed.

[Order 7001, § 204–32–090, filed 6/10/70, effective 7/15/70.]

WAC 204-32-100 Inspection of buses. The chief of the Washington state patrol may, from time to time, require that every private carrier bus be presented at some location which shall be designated by him for the purpose of inspection of the vehicle to determine if the vehicle is equipped as required by law and the provisions of this regulation.

[Order 7001, § 204-32-100, filed 6/10/70, effective 7/15/70.]

WAC 204-32-110 Bus stops and routing. The chief of the Washington state patrol may delegate officers of the Washington state patrol to work with private carrier bus operators and owners to establish routes and passenger loading and unloading locations which will provide the greatest safety for bus passengers and the motoring public. Bus stops and routes established by this means shall be adhered to by private carrier bus drivers.

[Order 7001, § 204-32-110, filed 6/10/70, effective 7/15/70.]

WAC 204-32-120 Effective date. The effective date of this regulation shall be July 15, 1970. To allow sufficient time to properly equip vehicles which qualify as private carrier buses, compliance with this regulation must be completed by January 1, 1971. Any private carrier bus using the signal lamps, stop signal or warning sign prior to January 1, 1971, shall comply fully with the provisions of this regulation.

[Order 7001, § 204-32-120, filed 6/10/70, effective 7/15/70.]

#### Chapter 204-36 WAC **AUTHORIZED EMERGENCY VEHICLE PERMITS**

#### WAC 204-36-010

Promulgation.

204-36-020

Definitions. Permit requirements.

Equipment requirements.

204-36-030 204-36-040

Permit limitations.

204-36-050 204-36-060

Procedure.

204-36-070

Revocation or suspension.

WAC 204-36-010 Promulgation. The state patrol hereby adopts the following regulations relating to the issuance of an authorized emergency vehicle permit.

[Statutory Authority: RCW 46.37.194. 88-15-052 (Order 88-08-ESR), § 204-36-010, filed 7/18/88. Statutory Authority: RCW 46.37.005 and 46.37.194. 79-02-085 (Order 7501A), § 204-36-010, filed 2/7/79; Order 7301, § 204-36-010, filed 2/5/73.]

- WAC 204-36-020 Definitions. (1) Operator or driver. The term operator and the term driver, as used herein, means every person who is in actual physical control of an authorized emergency vehicle.
- (2) Operation. The term operation, as used herein, is the driving or moving by any operator or driver upon a public highway of any vehicle that is equipped or has attached thereon any equipment, the installation of which requires an authorized emergency vehicle permit, whether or not the emergency equipment is activated.
  - (3) Patrol shall mean the state patrol.

[Statutory Authority: RCW 46.37.194. 88-15-052 (Order 88-08-ESR), § 204-36-020, filed 7/18/88. Statutory Authority: RCW 46.37.005 and 46.37.194. 79-02-085 (Order 7501A), § 204-36-020, filed 2/7/79; Order 7301, § 204-36-020, filed 2/5/73.]

- WAC 204-36-030 Permit requirements. (1) Any person, firm, corporation or municipal corporation desiring to have a vehicle registered as an authorized emergency vehicle pursuant to RCW 46.37.194 shall apply for such classification to the state patrol on forms provided by the patrol.
- (2) The applicant shall furnish the following information to the patrol:
- (a) A description of the specific geographic area in which the vehicle shall be used as an authorized emergency vehicle.
- (b) A description of the specific purposes for which the vehicle shall be used as an authorized emergency vehicle.
- (c) An explanation of the nature and scope of the duties, responsibilities and authority of the vehicle operator which necessitate the vehicle's registration as an authorized emergency vehicle.
- (d) A description of the emergency equipment to be used if the permit is granted.
- (e) A listing of the names, addresses, birthdates, operator's license numbers and other identifying data as may be prescribed on the application form by the patrol, of all persons who will use the vehicle as an authorized emergency vehicle, and a completed applicant finger-print card.
- (f) Certification from each jurisdiction identified in (a) of this subsection that the vehicle is to be used as described. Such certification shall be by:
- (i) The chief law enforcement officer if the applicant is a law enforcement or security officer, or has funeral home, coroner, ambulance or other nonfire related duties
- (ii) The fire chief if the vehicle is to be used for fire-fighting purposes.

The certification shall state that a need exists in the jurisdiction for the vehicle to be used as described and

that the certifier knows of no reason why the application should be denied.

Note: If the person making application is the chief law enforcement officer or the fire chief of the jurisdiction, certification must be made by the chief executive officer of the political subdivision of the jurisdiction.

Upon satisfactory application the patrol may issue an emergency vehicle permit or permits which, when carried as required, are valid until expiration or cancellation as prescribed in WAC 204-36-070.

[Statutory Authority: RCW 46.37.194. 90–07–034, § 204–36–030, filed 3/15/90, effective 4/15/90; 88–15–052 (Order 88–08–ESR), § 204–36–030, filed 7/18/88. Statutory Authority: RCW 46.37.005 and 46.37.194. 79–02–085 (Order 7501A), § 204–36–030, filed 2/7/79; Order 7501, § 204–36–030, filed 11/25/75; Order 7301, § 204–36–030, filed 2/5/73.]

WAC 204-36-040 Permit limitations. (1) A vehicle registered by the patrol shall not be used as an authorized emergency vehicle except as follows:

- (a) Only by the operators named in the original or amended application.
- (b) Only with the equipment described in the original or amended application.
- (c) Only within the geographic area described in the original or amended application.
- (d) Only for the purposes set forth in the original or amended application.
- (2) If an authorized emergency vehicle is used for private purposes, or for purposes in an area or by an operator other than as set forth in the application, all emergency equipment which is exposed to public view shall be covered with an opaque hood, and shall not be operated during such period of time.
- (3) The issuance of an emergency vehicle permit does not relieve the driver of the responsibility for using due care and caution in the operation of the vehicle. The inappropriate or misuse of authorized emergency vehicles may result in criminal or civil liability as well as cancellation of the emergency vehicle permit.

[Statutory Authority: RCW 46.37.194. 90-07-034, § 204-36-040, filed 3/15/90, effective 4/15/90; 88-15-052 (Order 88-08-ESR), § 204-36-040, filed 7/18/88; Order 7301, § 204-36-040, filed 2/5/73.]

WAC 204-36-050 Equipment requirements. Authorized emergency vehicles shall be conventional passenger cars, vans, pickups, or similar vehicles. The vehicles shall be conventionally painted, legally equipped and shall not display commercial signs, posters, or pictures. Equipment, not related to the emergency nature of the vehicle, shall not be carried or attached to the outside of the vehicle. Every authorized emergency vehicle shall be equipped in conformance with RCW 46.37.190(1) with at least one lamp capable of displaying a red light visible from at least five hundred feet in normal sunlight and a siren capable of giving an audible signal. To be considered approved equipment for use under the provisions of this section, all devices must meet the criteria established in RCW 46.37.320. In descending order of preference, these are:

(1) Conformance to current standards and specifications of the Society of Automotive Engineers, or, if none,

- (2) Certified for compliance by any recognized organization or agency such as, but not limited to, the American National Standards Institute, the Society of Automotive Engineers, or the American Association of Motor Vehicle Administrators.
- (a) Such equipment shall not be installed prior to obtaining approval of the application by the patrol.
- (b) Blue lamps shall not be installed unless requested in the application and specifically approved and listed on the permit.

[Statutory Authority: RCW 46.37.194. 90-07-034, § 204-36-050, filed 3/15/90, effective 4/15/90; 88-15-052 (Order 88-08-ESR), § 204-36-050, filed 7/18/88; Order 7301, § 204-36-050, filed 2/5/73.]

- WAC 204-36-060 Procedure. (1) If the patrol approves the application, it shall first issue a certificate of approval which shall be valid for thirty days, during which time the emergency equipment may be installed. After installation of the emergency equipment, the applicant shall bring the vehicle to a district or detachment office of the Washington state patrol to be examined to determine if it is of an approved type. A Washington state patrol officer shall certify the results of this examination on a form prescribed and provided by the patrol and the applicant shall file the form with the State Patrol, E.S.R. Section, General Administration Building, Mailstop AS-12, Olympia, Washington 98504. Upon receipt of such certification, the patrol shall issue a permit, which shall expire one year from the date of issuance thereof.
- (2) The patrol may refuse to approve the application, certificate or permit or in the case of an application which lists multiple operators may refuse to approve any single operator if the applicant/operator has been convicted of a felony during the ten years preceding the date of the application provided the felony for which the applicant was convicted directly relates to the specific occupation, trade, vocation, or business for which the certificate or permit is sought.
- (3) The certificate of approval and when issued, the permit, including all endorsements for change of conditions as provided in WAC 204-36-030, shall be carried in the authorized emergency vehicle at all times, and shall be displayed on request to any law enforcement officer.

[Statutory Authority: RCW 46.37.194. 90–07–034, § 204–36–060, filed 3/15/90, effective 4/15/90; 88–15–052 (Order 88–08–ESR), § 204–36–060, filed 7/18/88. Statutory Authority: RCW 46.37.005 and 46.37.194. 81–04–043 (Order 81–01–01), § 204–36–060, filed 2/3/81; 79–02–085 (Order 7501A), § 204–36–060, filed 2/7/79; Order 7301, § 204–36–060, filed 2/5/73.]

WAC 204-36-070 Revocation or suspension. (1) Violation of any of these regulations shall be grounds for suspension or revocation of the authorized emergency vehicle permit. Notice shall be furnished to the applicant at least twenty days prior to the effective date of such suspension or revocation. The notice shall describe the grounds for the order and shall furnish the applicant an opportunity to be heard within the twenty-day period. The notice may provide for immediate suspension of the permit prior to any hearing, or the patrol may suspend

the permit following the hearing but prior to final determination, if it is necessary to do so in the interests of the public health, safety or welfare.

- (2) The chief law enforcement officer, or fire chief if the vehicle is to be used for firefighting purposes, of each jurisdiction in which the vehicle is operated as an authorized emergency vehicle may revoke his certification of the vehicle by notifying the patrol in writing of such revocation and his reasons therefor. Following notice to the applicant and an opportunity to be heard, the permit may be invalidated by the patrol.
- (3) Mailing by certified mail of any notice or correspondence by the patrol to the last address of the applicant shown on his application shall be sufficient service of notice as required by this chapter.

[Statutory Authority: RCW 46.37.194. 88–15–052 (Order 88–08–ESR), § 204–36–070, filed 7/18/88. Statutory Authority: RCW 46.37.005 and 46.37.194. 79–02–085 (Order 7501A), § 204–36–070, filed 2/7/79; Order 7301, § 204–36–070, filed 2/5/73.]

### Chapter 204–38 WAC FLASHING AMBER LAMPS

WAC
204-38-010 Promulgation.
204-38-020 Purpose.
204-38-030 Definitions.
204-38-040 Mounting of lamps.
204-38-050 Use of lamps.

WAC 204-38-010 Promulgation. By authority of RCW 46.37.005 and 46.37.280, the state patrol hereby adopts the following regulation pertaining to the use of flashing amber lamps on motor vehicles.

[Statutory Authority: RCW 46.37.320. 88-15-055 (Order 88-02-ESR), § 204-38-010, filed 7/18/88. Statutory Authority: RCW 46.37.280. 80-06-083 (Order 80-05-2), § 204-38-010, filed 5/28/80.]

WAC 204-38-020 Purpose. The purpose of this regulation is to ensure the safety and protection of the motoring public and those persons and equipment engaged in construction or maintenance upon, along, or adjacent to a public roadway.

[Statutory Authority: RCW 46.37.280. 80–06–083 (Order 80–05–2),  $\$  204–38–020, filed 5/28/80.]

- WAC 204-38-030 Definitions. (1) "Flashing" lamps shall include those lamps which emit a beam of light which is broken intermittently and regularly by use of an electronic or electric switch, a rotating reflector, a rotating lamp, or a strobe lamp.
- (2) "Other construction and maintenance vehicles" shall mean those vehicles owned or operated by a private company which is in the process of providing highway construction or maintenance services or is working in conjunction with any public utility.
- (3) "Pilot cars" shall mean those vehicles which are used to provide escort for overlegal size loads upon the roadways of this state.
- (4) "Public utilities vehicles" shall mean those vehicles used for construction, operations, and maintenance, and which are owned or operated by a public or private

utility, including, but not limited to, companies providing water, electricity, natural gas, telephone, and television cable services, and railroads.

(5) "Tow trucks" shall mean those vehicle engaged in removing disabled or abandoned vehicles from the roadway and which are used primarily for that purpose.

(6) "Animal control vehicles" shall mean those vehicles, either publicly or privately owned, which are used primarily for transportation of animals to or from animal shelters, humane society facilities, or veterinary medicine facilities.

[Statutory Authority: RCW 46.37.280. 81-10-038 (Order 81-04-01), § 204-38-030, filed 4/30/81; 80-06-083 (Order 80-05-2), § 204-38-030, filed 5/28/80.]

WAC 204-38-040 Mounting of lamps. One or more flashing amber lamps may be mounted on public utilities vehicles, other construction and maintenance vehicles, pilot cars, tow trucks, and animal control vehicles. The lamp(s) shall be mounted and shall be of sufficient intensity so as to be clearly visible to approaching traffic for at least five hundred feet in normal sunlight.

The provisions of WAC 204-72-030 and 204-72-040 shall be adhered to as they relate to the mounting of warning lamps.

[Statutory Authority: RCW 46.37.280. 81–10–038 (Order 81–04–01), § 204–38–040, filed 4/30/81; 80–06–083 (Order 80–05–2), § 204–38–040, filed 5/28/80.]

WAC 204-38-050 Use of lamps. Flashing amber lamps shall be used on the vehicles described in WAC 204-38-040 only when such vehicles are actually involved in construction, maintenance, or operations which require that warning be given to ensure the protection of the motoring public or the work crew. Warning lamps shall not be illuminated while traveling to or from the site of operations. For the purposes of tow truck operations, the site of operations shall be only that place where vehicles are attached to or detached from the tow truck. Lamps on pilot cars shall be illuminated only while the vehicle is actually providing escort service.

Nothing in this chapter shall relieve the operator of any vehicle from displaying any other light or warning device required by statute or regulation, and nothing herein shall permit any vehicle operator to disregard any traffic law. To be considered approved equipment for use under the provisions of this section, all devices must meet the criteria established in RCW 46.37.320. In descending order of preference, these are:

- (1) Conformance to Federal Motor Vehicle Safety Standards, or, if none,
- (2) Conformance to current standards and specifications of the Society of Automotive Engineers, or, if none,
- (3) Certified for compliance by any recognized organization or agency such as, but not limited to, the American National Standards Institute, the Society of Automotive Engineers, or the American Association of Motor Vehicle Administrators.

[Statutory Authority: RCW 46.37.320. 88-15-055 (Order 88-02-ESR), § 204-38-050, filed 7/18/88. Statutory Authority: RCW 46.37.280. 81-10-038 (Order 81-04-01), § 204-38-050, filed 4/30/81; 80-06-083 (Order 80-05-2), § 204-38-050, filed 5/28/80.]

### Chapter 204–39 WAC TRAILER TONGUE LAMPS

WAC 204-39-010 Promulgation. 204-39-020 Purpose.

204-39-030 Use of lamps required. 204-39-040 Mounting of lamps. 204-39-050 Effective date.

WAC 204-39-010 Promulgation. By authority of RCW 46.37.005 and 46.37.280, the Washington state commission on equipment hereby adopts the following rule pertaining to lamps mounted on certain trailer tongues.

[Statutory Authority: RCW 46.37.280 and 46.37.005. 81–18–007 (Order 81–08–01), § 204–39–010, filed 8/21/81.]

WAC 204-39-020 Purpose. The purpose of this rule is to ensure the safety and protection of the motoring public and those persons operating vehicle combinations where excessive distances exist between the separate vehicles in the combination.

[Statutory Authority: RCW 46.37.280 and 46.37.005. 81–18–007 (Order 81–08–01), § 204–39–020, filed 8/21/81.]

- WAC 204-39-030 Use of lamps required. (1) A steady burning or a flashing lamp, amber in color and visible to each side, shall be required on the tongue of any trailer where the distance between the front of the trailer body and the rear of the body of the towing vehicle is fifteen feet or greater, and where the top of the tongue is less than twenty-four inches above the ground at any point between the front of the body of the trailer and the rear of the body of the towing vehicle.
- (2) The flashing lamp permitted by this section shall include only those lamps which flash by means of an electronic or electric flasher. Strobe lamps and rotating type lamps shall not be permitted.
- (3) The amber lamps required by this chapter shall be in operation whenever the combination of vehicles is in motion, and shall be visible to each side of the combination.
- (4) Minimum diameter of the lamp(s) shall be two and one-half inches.

[Statutory Authority: RCW 46.37.280. 83-21-080 (Order 83-10-01), § 204-39-030, filed 10/19/83; 81-18-007 (Order 81-08-01), § 204-39-030, filed 8/21/81.]

- WAC 204-39-040 Mounting of lamps. (1) The amber lamps required by this chapter shall be mounted as nearly as practicable in the center of the distance between the vehicle bodies. Lamps mounted on extendable tongues will necessarily vary in distance between the bodies in relation to the amount of extension used; however, in no case shall the lamp be over five feet from the center of the distance between vehicle bodies nor more than fifteen feet from either of the vehicle bodies.
- (2) Minimum height of the lamps required shall be twenty—one inches above the roadway. Maximum height shall be forty—eight inches above the roadway.

[Statutory Authority: RCW 46.37.280 and 46.37.005. \$1-18-007 (Order \$1-08-01), \$ 204-39-040, filed \$/21/\$1.]

- WAC 204-39-050 Effective date. (1) All trailers manufactured after January 1, 1982, which are used under the conditions described in WAC 204-39-030(1) shall be equipped and operated as set forth in this chapter.
- (2) All trailers manufactured prior to January 1, 1982, which are used under the conditions described in WAC 204-39-030(1) shall be equipped and operated as set forth in this chapter no later than July 1, 1982.
- (3) Nothing herein shall be construed to prevent the installation of lamps and the operation thereof prior to the effective dates above.

[Statutory Authority: RCW 46.37.280 and 46.37.005. 81–18–007 (Order 81–08–01), § 204–39–050, filed 8/21/81.]

### Chapter 204–40 WAC GREEN LIGHTS ON FIREMEN'S PRIVATE CARS

WAC 204-40-010 204-40-020

Promulgation.

204-40-020 204-40-030 Authorization. Standard.

204-40-040

Limitations.

WAC 204-40-010 Promulgation. By authority of RCW 46.37.005 and 46.37.185, the state patrol hereby adopts the following regulation pertaining to the use of green lamps on firemen's private cars.

[Statutory Authority: RCW 46.37.185. 88-15-049 (Order 88-03-ESR), § 204-40-010, filed 7/18/88; Order 7302, § 204-40-010, filed 2/5/73.]

WAC 204-40-020 Authorization. Firemen, when approved by the chief of their respective service, shall be authorized to use a green light on the front of their private cars when on emergency duty only.

[Order 7302, § 204-40-020, filed 2/5/73.]

WAC 204-40-030 Standard. The green light shall be visible for a distance of two hundred feet under normal atmospheric conditions and the maximum light projected in any one direction shall not exceed 300 candle power.

Mounting. Vertical mounting of the lamp shall be not less than 24 inches above the level surface upon which the vehicle stands, or may be placed on the forward portion of the top above the windshield.

The lateral mounting of the lamp shall be anywhere from the center of the vehicle to the left side thereof.

Approved equipment. To be considered approved equipment for use under the provisions of this section, all devices must meet the criteria established in RCW 46.37.320. In descending order of preference, these are:

- (1) Conformance to Federal Motor Vehicle Safety Standards, or, if none,
- (2) Conformance to current standards and specifications of the Society of Automotive Engineers, or, if none,

(3) Certified for compliance by any recognized organization or agency such as, but not limited to, the American National Standards Institute, the Society of Automotive Engineers, or the American Association of Motor Vehicle Administrators.

[Statutory Authority: RCW 46.37.185. 88–15–049 (Order 88–03–ESR), § 204–40–030, filed 7/18/88; Order 7302, § 204–40–030, filed 2/5/73.]

WAC 204-40-040 Limitations. The use of the green light shall only be for the purpose of identification and the operator of a vehicle so equipped shall not be entitled to any of the privileges provided in RCW 46.61.035 for the operators of authorized emergency vehicles.

[Order 7302, § 204-40-040, filed 2/5/73.]

### Chapter 204–41 WAC SEAT BELT EXEMPTIONS

WAC

204-41-010 Authority.

204-41-020 Purpose.

204-41-030 Seat belting of prisoners.

204-41-040 Rural United States postal carriers.

204-41-050 Rural newspaper carriers.

WAC 204-41-010 Authority. This chapter is promulgated pursuant to RCW 46.61.688 and chapter 152, Laws of 1986, and is intended to administratively implement that statute.

[Statutory Authority: RCW 46.61.688. 86-20-037 (Order 86-1), § 204-41-010, filed 9/25/86.]

WAC 204-41-020 Purpose. The purpose of this rule is to exempt the operators of specific vehicles that stop on a frequent basis while traveling on public roadways from the requirement to wear a seat belt assembly.

[Statutory Authority: RCW 46.61.688. 86-20-037 (Order 86-1), § 204-41-020, filed 9/25/86.]

WAC 204-41-030 Seat belting of prisoners. It is intended that all prisoners being transported in a passenger style patrol vehicle wear a seat belt. However, if the prisoner is combative or for any other reason, the officer in charge of the prisoner has the option to not place the prisoner in a seat belt system.

Prisoners that are transported in the front seat of a patrol vehicle should be placed in a seat belt assembly.

[Statutory Authority: RCW 46.61.688. 86-20-037 (Order 86-1), § 204-41-030, filed 9/25/86.]

WAC 204-41-040 Rural United States postal carriers. Employees of the United States Postal Service are not required to wear a seat belt system while delivering mail and while actually on a designated rural mail route. Seat belt use is required when traveling to and from the mail route.

[Statutory Authority: RCW 46.61.688. 86-20-037 (Order 86-1), § 204-41-040, filed 9/25/86.]

WAC 204-41-050 Rural newspaper carriers. Employees of newspapers that deliver newspapers on rural routes are not required to wear a seat belt system while actually on a designated newspaper delivery route. This shall mean in sparsely populated areas. Seat belt use is required when traveling to and from the newspaper route.

[Statutory Authority: RCW 46.61.688. 86-20-037 (Order 86-1), § 204-41-050, filed 9/25/86.]

### Chapter 204-44 WAC STANDARDS FOR LOAD FASTENING DEVICES

WAC

Promulgation.

204-44-010 204-44-020

Load fastening devices.

204-44-02001

Diagrams I and II-Placement and number of

wrappers.

204-44-030

Approval of load fastening devices.

WAC 204-44-010 Promulgation. Under authority of RCW 46.37.005 and 46.37.490, the state patrol hereby adopts the following rules pertaining to the use of safety chains or other devices on vehicles to secure and protect the loads thereon.

[Statutory Authority: RCW 46.37.005. 90-06-055, § 204-44-010, filed 3/5/90, effective 4/5/90; Order 7303, § 204-44-010, filed 12/19/73.]

WAC 204-44-020 Load fastening devices. [(1)] Any motor truck, truck tractor, trailer, semi-trailer, or any combination thereof, transporting logs upon a public highway where binder devices are required, shall have the load thereon securely fastened and protected [as follows:]

- (a) Placement and number of wrappers required on log trucks using stakes.
- (i) In the hauling of one log loads, one wrapper chain or cable shall be required and it shall be secured to the rear bunk and the log shall be properly blocked or secured in a manner which will prevent it from rolling or shifting. An additional wrapper, secured to the front bunk, is optional.
- (ii) In the hauling of two log loads, not less than two wrapper chains or cables shall be used to secure the load. The logs shall be properly blocked to prevent them from rolling or shifting.
- (iii) On loads consisting of three or four logs not over 44 feet in length, the load shall be secured by not less than two properly spaced wrapper chains or cables. Ends of short logs not secured by such wrappers shall be secured with extra wrappers. If any log is over 44 feet in length, the load shall be secured by not less that three properly spaced wrappers.
- (iv) Loads consisting of five or more logs, when the logs are all 17 feet or less in length, shall be secured by not less than two properly spaced wrappers. Load consisting of five or more logs, when any log is over 17 feet in length, shall be secured by not less than three properly spaced wrappers.

- (b) Placement and number of wrappers required on log trucks using chock blocks.
- (i) In the hauling of one log load, one wrapper chain or cable shall be required and secured to the rear bunk and the log shall be properly blocked in a manner to prevent it from rolling or shifting.
- (ii) One additional wrapper chain or cable shall be required on log trucks using chock blocks over and above the requirements in subdivisions (a)(iii) and (iv) of this section.
- (c) Placement and number of wrappers required on crosswise loaded trucks, trailers, etc. In the case of short logs loaded crosswise, the following method of securing the load shall be used if the truck trailer is not provided with solid ends of a height sufficient to prevent any log in the load from rolling off: Not less than two chock blocks shall be used at each open end of the vehicle and the load shall be held with at least two wrapper chains or cables. The wrappers shall be firmly attached to the end of the truck or trailer. Rigid standards or stakes may be used in lieu of chock blocks but each such standard or stake shall be either rigidly connected to the bed of the truck or trailer or shall be placed in a tight fitting socket at least 12 inches in depth. Other means furnishing equivalent security may be acceptable.
- (d) Wrapper placement. When two wrappers are required, they shall be applied within six feet of the front and rear bunks. When more than two wrappers are required, the front and back binder shall be applied within six feet of the front and rear bunks.
- (e) Short logs. To properly secure short logs, binders shall be placed near the end, not less than 12 inches from the end of the log.
- (f) Log on top or in outside saddle. No log loaded on top or in outside saddles of a load shall be transported unless secured by not less than two wrapper chains or cables, one of which shall be placed near each end of such log.
- (g) Fasten in place. All wrappers and binders shall be fastened in place prior to tightening to prevent the displacement of logs on the top of the load.
- (h) Surround load. All wrapper chains or cables, except in the case of one log loads, shall entirely surround the load. This does not apply to gut—wrappers.
- (i) Gut-wrappers. Gut-wrappers, when used, shall be adjusted so as to be tightened by, but not carry the weight of the logs above them.
- (j) Wrappers and binders to be placed before leaving immediate loading area. Wrappers and binders shall be placed and tightened around the completed load before the truck leaves the immediate loading area.
- (k) Construction of wrappers and binders. Wrapper chains or cables, binders, fasteners, or attachments thereof, used for any purpose as required by these standards, shall have a minimum breaking strength of not less than 15,000 pounds and shall be rigged so that it can be safely released.
- (1) Bundle straps or banding. For the purposes of this standard, applied bundle straps or banding are not acceptable as wrappers and binders.

- (m) Loose ends secured. All loose ends of wrapper chains or cables shall be securely fastened so as to prevent their swinging free in a manner that will create a hazard.
- (n) Trucks in sorting yards. Trucks and trailers used around sorting yards, etc., which travel as [at] slow speeds, will not be required to use wrappers providing all logs are contained by and lie below the height of the stakes and there are no persons on the ground exposed to such traffic.
- (o) Binder hook design. Binders for securing wrappers on logging trucks shall be fitted with hooks of proper size and design for the wrapper chain being used.
- (p) Defective wrappers. Wrappers shall be removed from service when any of the following conditions exist:
  - (i) Excessively worn links on chains;
  - (ii) Deformed or stretched chain links;
  - (iii) Cracked chain links;
- (iv) Frayed, stranded, knotted, or otherwise defective wire rope.
- (q) Binder extensions. Pipe extension handles (swedes) for tightening or securing binders shall be limited to not longer than 36 inches. Care shall be taken that a sufficient amount of the pipe extends over the binder handle.
- (r) Defective binders. Defective binders shall be immediately removed from service.

Note: See Figures I and II [codified as WAC 204-44-02001] for illustrations of placement and number of wrappers.

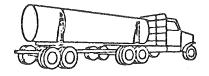
(2) Any motor truck, truck tractor, trailer, semitrailer, or any combination thereof, transporting any load other than logs, upon a public highway where binder devices are required, shall have the load thereon securely fastened and protected by at least two load binders sufficiently strong to withstand all possible strains. The load securing devices shall have a breaking strength of at least 15,000 pounds. Exception: Binders used to secure baled hay and baled straw shall have a breaking strength of not less than 9,000 pounds.

[Statutory Authority: RCW 46.37.005, 46.37.010, and 46.37.490. 78–10–100 (Order 7303B), § 204–44–020, filed 10/3/78; Order 7606, § 204–44–020, filed 2/24/76; Order 7303, § 204–44–020, filed 12/19/73.]

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules, and deems ineffectual changes not filed by the agency in this manner. The bracketed material in the above section does not appear to conform to the statutory requirement.

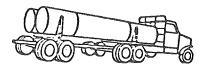
#### WAC 204-44-02001 Diagrams I and II--Placement and number of wrappers.

ONE LOG LOAD



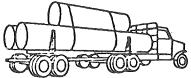
One wrapper required which shall be secured to the rear bunk. Log shall be blocked or secured in a manner to prevent it from rolling or shifting. A second wrapper secured to the front bunk is optional.

#### TWO LOG LOAD



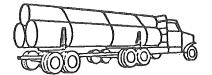
A minimum of two wrappers required. Logs shall be blocked to prevent them from rolling or shifting.

THREE OR FOUR LOG LOAD FORTY-FOUR FEET OR LESS



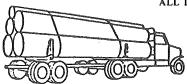
A minimum of two wrappers required.

#### THREE OR FOUR LOG LOADS MORE THAN FORTY-FOUR FEET



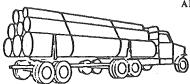
A minimum of three wrappers required.

### FIVE OR SIX LOG LOAD ALL LOGS SEVENTEEN FEET OR LESS



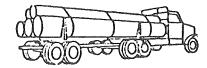
A minimum of two wrappers required.

### SEVEN OR MORE LOG LOAD ALL SEVENTEEN FEET OR LESS



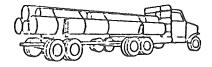
A minimum of two wrappers required.

#### FIVE OR MORE LOG LOAD IF ANY LOGS ARE MORE THAN SEVENTEEN FEET



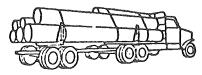
A minimum of three wrappers required.

#### OUTSIDE LOGS OR TOP LOGS



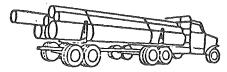
All outside or top logs shall be secured by a wrapper near but not within 12 inches of each end.

#### A WRAPPER SHALL BE NEAR EACH BUNK



Each load shall be secured by having a wrapper within 6 feet of each bunk except on one log loads.

#### PROPER SUPPORT FOR LOGS



Not more than approximately one-third the weight of any log shall extend beyond the end of the logs or bunk supporting it.

#### SHORT LOGS LOADED CROSSWISE



A minimum of two wrappers are required and two chocks or stakes shall be used on the open end of the truck.

Note: All loads of logs on logging trucks equipped with chock blocks instead of stakes, shall have at least one additional wrapper over and above the requirements for trucks equipped with stakes, excepting on one and two log loads and trucks with short logs loaded crosswise.

[Statutory Authority: RCW 46.37.005, 46.37.010, and 46.37.490. 78-10-100 (Order 7303B), (codified as WAC 204-44-02001), filed 10/3/78.]

WAC 204-44-030 Approval of load fastening devices. The types of binder devices listed below are hereby approved by the state patrol, provided that they have a minimum breaking strength of at least 15,000 pounds, or meet or exceed federal standards contained in CFR 393.102:

- 1. Steel chain.
- 2. Steel cable.
- 3. Steel strapping.
- 4. Fiber webbing.

[Statutory Authority: RCW 46.37.005. 90-06-055, § 204-44-030, filed 3/5/90, effective 4/5/90; Order 7303, § 204-44-030, filed 12/19/73.]

### Chapter 204-48 WAC TIRES

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204-48-010 Promulgation. 204-48-020 Standards. 204-48-030 Inspection. 204-48-040 Spare tires.

WAC 204-48-010 Promulgation. By authority of RCW 46.37.005 and 46.37.425, the state commission on equipment hereby adopts the following rules and regulations pertaining to the requirements of safe operating conditions of tires.

[Order 7502, § 204-48-010, filed 2/24/76.]

WAC 204-48-020 Standards. No person shall drive or move, or cause to be driven or moved, any vehicle, the tires of which have contact with the driving surface of the road, subject to registration in this state, upon the public highways of this state unless such vehicle is equipped with tires in safe operating condition. A tire shall be considered unsafe if the defects listed below can be detected by visual observation, with or without simple

measurable gauges, while the tire is mounted on the vehicle. A tire is unsafe if:

- (1) It has any ply or cord exposed either to the naked eye or when cuts or abrasions on the tire are probed.
- (2) It has any bump, bulge or knot, affecting the tire structure.
  - (3) It has any break repaired with a boot.
- (4) It has a tread depth of less than 2/32 of an inch measured in any two major tread grooves at three locations equally spaced around the circumference of the tire. The measurement shall not be made where tie bars, humps, fillets or tread wear indicators are located.

Provided that: Any tires on the front wheels of trucks, truck tractors, and buses (including school buses) shall have no less than 4/32 of an inch of tread measured as described above.

- (5) It has a legend which indicates the tire is not intended for use on public highways such as "not for highway use," or "for racing purposes only."
- (6) It is in such condition as may be reasonably demonstrated to render it unsafe.
- (7) Not matched in tire size, designation, construction, and profile to the other tire and/or tires on the same axle. Provided that: Tires meeting federal standards for "emergency" or "temporary use" may be used if installed and operated within manufacturer's guidelines.

[Statutory Authority: RCW 46.37.005 and 46.37.425. 90-11-021, \$ 204-48-020, filed 5/9/90, effective 6/9/90; Order 7502, \$ 204-48-020, filed 11/18/77, effective 12/21/77; Order 7502, \$ 204-48-020, filed 2/24/76.]

WAC 204-48-030 Inspection. If there is a violation relating to items (1)-(7) inclusive of WAC 204-48-020, the condition or defect must be such that it can be detected by a visual inspection of tires mounted on vehicles, including visual comparison with simple measuring gauges.

[Order 7502, § 204–48–030, filed 11/18/77, effective 12/21/77; Order 7502, § 204–48–030, filed 2/24/76.]

WAC 204-48-040 Spare tires. The provisions of WAC 204-48-020 and [204-48-]030 do not apply to tires designed as substitutes for conventional spare tires that meet Federal Motor Vehicle Safety Standard No. 109 (new pneumatic tires).

[Order 7502, § 204-48-040, filed 11/18/77, effective 12/21/77.]

# Chapter 204-50 WAC IGNITION INTERLOCK BREATH ALCOHOL DEVICES

WAC 204-50-010 Authority. 204-50-020 Purpose. 204-50-030 Definitions for words or terms used in this chapter. 204-50-040 Testing and certification process. Test specifications. 204-50-050 204-50-060 Device accuracy and reliability. 204-50-070 Variable calibration. 204-50-080 Device maintenance and reports. Device security. 204-50-090 204-50-110 Mandatory operational features. 204-50-120 Other provisions. 204-50-130 Removal procedures.

WAC 204-50-010 Authority. This chapter is promulgated pursuant to RCW 46.37.005 and chapter 247, Laws of 1987.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-010, filed 12/9/87.]

WAC 204-50-020 Purpose. The purpose of this chapter is to establish guidelines for certification, installation, repair, and removal of ignition interlock breath alcohol devices, as required by chapter 247, Laws of 1987.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-020, filed 12/9/87.]

WAC 204-50-030 Definitions for words or terms used in this chapter. Alcohol – The generic class of organic compounds known as alcohols and, specifically the chemical compound ethyl alcohol. For the purpose of ignition interlock devices, there is no requirement expressed or implied that the device be specifically for ethyl alcohol.

Breath alcohol concentration (BAC) – The weight amount of alcohol contained in a unit volume of breath, measured in grams Ethanol/210 liters of breath and expressed as %, grams % and % BAC. Breath alcohol concentration shall be expressed as "% BAC."

Court (or originating court) – The particular Washington state court that has required the use of an ignition interlock breath alcohol device by a particular individual.

Certification – The testing and approval process required by chapter 247, Laws of 1987.

Chief – The chief of the Washington state patrol. Device – An ignition interlock breath alcohol device.

ESR – The equipment and standards review section of the Washington state patrol.

Interlock – The state in which a motor vehicle is prevented from starting by a device.

Lessee – The person ordered by a court to drive only vehicles which have certified devices installed.

Manufacturer – The person, company, or corporation who produces the device, or a recognized representative.

OAC – The office of administrator for the courts.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-030, filed 12/9/87.]

WAC 204-50-040 Testing and certification process. To be certified, a device must meet or exceed the minimum test standards listed in this chapter. Only a notarized statement, from a laboratory capable of performing the tests specified, will be accepted as proof of meeting or exceeding the standards. The notarized statement shall include the name and signature of the person in charge of the tests under the following sentence:

Two samples of \_\_(model name) , manufactured by \_\_(manufacturer) were tested by \_\_(laboratory) .

They do meet or exceed all specifications listed in chapter 204–50 WAC.

Signed

A list of laboratories performing the required tests shall be maintained by the ESR.

Upon receipt of a statement from a testing laboratory that two samples of a device have successfully passed the test procedures listed in this chapter, and confirmation that all other requirements of this chapter have been met, the chief shall issue a letter of certification for the device. A copy of each certification letter will be forwarded to OAC. The letter of certification shall be valid until voluntarily surrendered by the manufacturer or until revoked by the chief for cause. Reasons for revocation include but are not limited to:

- (1) Evidence of repeated device failures due to gross defects in design, materials, and/or workmanship during manufacture, installation, or calibration of the device;
- (2) Notice of cancellation of manufacturer's liability insurance is received; and
- (3) Notification that the manufacturer is no longer in business.

Unless necessary for the immediate good and welfare of the public, revocation shall be effective ten days after manufacturer's receipt of notice, which shall be sent via certified mail, return receipt requested. A copy of each notice of revocation shall be provided to OAC and lessees utilizing the revoked device with notice to contact the manufacturer for a replacement.

Upon voluntary surrender, or revocation of a letter of certification for a manufacturer's device, all like devices shall be removed and replaced. Manufacturers may request a review of revocation. Such request shall be submitted to the chief, in writing, within twenty days of revocation.

The ESR shall maintain a file of all existing letters of certification.

[Statutory Authority: RCW 46.20.730. 88-15-050 (Order 88-04-ESR), § 204-50-040, filed 7/18/88. Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-040, filed 12/9/87.]

WAC 204-50-050 Test specifications. The purpose of these test specifications is to establish the accuracy and reliability of ignition interlock breath alcohol devices only. This shall be accomplished by performing no less than twenty tests utilizing simulators containing the alcohol solutions of known concentrations.

**EQUIPMENT AND SOLUTIONS** 

Equipment and procedures list:

- (1) Simulators.
- (a) The simulator will be clean.
- (b) The simulator will be in good working order.
- (i) To check motor, heater, and thermometer, fill glass jar with 500 ml deionized or distilled water and reassemble.
- (ii) Plug into 115 V line and after thirty minutes check temperature:  $34^{\circ}\text{C} \pm 0.2$ . (Make sure mercury column in thermometer is intact.) Check to make sure the stirrer is stirring smoothly.
  - (iii) The simulator must be leakproof.
- (c) Rinse simulator with appropriate alcohol reference solution, then fill with 500 ml of the alcohol reference solution and reassemble.
- (d) Attach a one inch piece of Tygon or FDA vinyl tubing to the simulator outlet and affix a saliva-trap mouthpiece. Attach an eight inch piece of tubing to the inlet.
- (e) Live breath or regulated, filtered, dried compressed air will be introduced in the simulator according to the manufacturer's specifications.
- (f) Each simulator is labeled with the BAC value to three decimal places, the batch number of the alcohol reference solution and the date filled.
  - (g) A log will be kept of the test results.
- (h) The solution in the simulator may be used for ten tests and must be discarded after the tenth test.
- (i) All simulator testing shall be conducted by using live breath or regulated, filtered, dried, compressed air as the source of air.
  - (2) Environmental chamber.
- (a) Capacity to place complete units inside chamber to run tests.
- (b) Ability to maintain temperature during test at -20°C, 0°C, + 40°C and + 70°C.
- (c) 20 25°C tests can be run at room temperature outside chamber.
  - (3) Standard alcohol reference solutions.
- (a) Stock solution: Mix absolute ethanol with distilled or deionized water at a ratio of 77.0 ml of ethanol diluted up to one liter of water.
- (b) Stock solution is stored in a well stoppered flask labeled "stock solution" and "contains 77.0 ml (60.5 gm) ethanol/L." The date prepared and initials of preparer.
- (c) Standard alcohol reference solutions: Prepared from stock solution by pipetting the requisite amount of the stock solution into a volumetric flask and fill with distilled or deionized water to the mark as given below:

- (i) For 0.020% dilute at ratio of 2.0 ml, stock solution to 500 ml.
- (ii) For 0.030% dilute at ratio of 3.0 ml, stock solution to 500 ml.
- (iii) For 0.040% dilute at ratio of 4.0 ml, stock solution to 500 ml.
- (iv) The solution is thoroughly mixed by capping the container securely and inverting at least twenty times.
- (d) The exact concentration of the standard alcohol reference solution shall be determined by titration using Potassium Dichromate (NBS primary standard grade). This standardized alcohol reference solution may then be used to calibrate a gas chromatograph.
- (e) The standard reference solution is stored in a glass bottle with a tight fitting ground glass stopper or a teflon coated screw cap.
- (f) The container is labeled with batch number, solution concentration in BAC, date prepared and the initials of the preparer. This data shall be recorded and filed.
- (g) The manufacturer may request aliquot samples of the solutions for independent testing.
  - (4) Test procedures.
- (a) Set up simulators with standard alcohol reference solutions.
- (i) Standard alcohol reference solution 0.020 % BAC, allow to reach  $34^{\circ}\text{C} \pm 0.2\text{C}$ .
- (ii) Standard alcohol reference solution 0.030 % BAC, allow to reach  $34^{\circ}C \pm 0.2C$ .
- (iii) Standard alcohol reference solution 0.040 % BAC, allow to reach 34°C  $\pm$  0.2C.
  - (b) Test set up.
  - (i) Alcohol devices shall not be modified.
- (ii) Use one inch of tubing between simulator and saliva-trap mouthpiece. Attach the mouthpiece to the breath sampling inlet.
- (iii) Operate the device according to the manufacturer's instructions.
- (iv) Use new mouth piece and tubing after each sequence of ten tests.
- (v) Wait at least five minutes between each test to avoid overloading sensors.
- (vi) For the purposes of laboratory testing, the device may give a "pass/fail" response when installed in a subject's vehicle.
  - (5) Tests.
  - (a) Temperatures.
  - (i) 20-25°C (room temperature)
  - (ii) 0°C
  - (iii) -20°C
  - (iv) +40°C
  - (v) + 70°C
  - (b) Alcohol solutions.
  - (i) 0.000% BAC (distilled or deionized water)
  - (ii) 0.020% BAC  $\pm .005\%$
  - (iii) 0.030% BAC  $\pm .005\%$
  - (iv) 0.040% BAC  $\pm .005\%$
  - (c) Number of tests.
- (i) Accuracy: Five tests at each temperature and at each concentration of alcohol solutions including 0.000% BAC.

- (ii) Repeatability: Ten tests at 0.030% BAC  $\pm$  .005% repeated at least forty-eight hours later.
- (iii) Ten breath tests on each of two interlock devices at room temperature using a minimum of three human subjects having a BAC in the range of 0.020% BAC and 0.040% BAC as measured in a near simultaneous fashion using suitable evidentiary instrument (e.g., Intoxilyzer, Model 5000).
- (iv) Ten breath tests on each of two interlock devices at room temperature using a minimum of three alcohol free human subjects registering (blank) BAC values on a suitable evidentiary instrument (e.g., Intoxilyzer, Model 5000).
  - (d) Criteria.
- (i) 0.020% BAC, nineteen of twenty tests give "pass" i.e., allow car to start.
- (ii) 0.030% BAC, nineteen of twenty tests will give "fail," i.e., not allow car to start.
- (iii) 0.040% BAC, twenty of twenty tests give "fail," i.e., will not allow car to start.
- (f) Nonalcoholic "bogus breath samples" for test purposes shall be generated by the testing laboratory using three or more of the following:
- (i) Air compressor powered by a 12 v DC automobile battery.
  - (ii) Portable car vacuum cleaner.
  - (iii) Mylar plastic bag.
  - (iv) Rubber balloon.

The methods of interface to the device under test shall be determined by the testing laboratory. At least three tests will be run with each source of "bogus breath."

- (g) Tests shall be conducted at room temperature to determine whether the use of filters can remove alcohol from breath sample thus circumventing the device. Cigarette filters from "Carlton" or "Lark" cigarettes packed into a paper tube shall be used for these tests.
- (h) Test units shall meet performance of specifications at room temperature after being subjected to a vibration of 10 g's at 250 Hz for thirty minutes.
- (i) Test devices shall meet performance specifications at 0°C at an altitude equivalent to eight thousand feet.
- (j) The device must allow the driver to "re-start" the vehicle for a period of one minute after the ignition has been shut off without requiring further testing of the driver.
- (k) The device must purge any residual alcohol before subsequent use.

[Statutory Authority: RCW 46.20.730. 88-15-050 (Order 88-04-ESR), § 204-50-050, filed 7/18/88. Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-050, filed 12/9/87.]

WAC 204-50-060 Device accuracy and reliability. To be certified, a device must, with an accuracy coefficient of .95\* detect and interlock when the air sample provided to it contains alcohol at or above the calibrated setting, plus or minus .005% BAC.

The device must also allow the vehicle to be started with an accuracy coefficient of .95\*, when the breath sample provided to it contains no alcohol or less than the

calibrated setting. The device shall utilize breath specimens which are alveolar air samples (deep lung air) in accordance with established forensic alcohol standards.

Note: \*95% of the time the device will operate correctly.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-060, filed 12/9/87.]

WAC 204-50-070 Variable calibration. To be certified, a device must be capable of being preset, by the manufacturer, to interlock when the breath sample provided is at any level from .02 through .09% BAC (plus or minus .003% BAC). The actual setting of each device shall be determined by the originating court. The capability to change this setting shall be made secure, by the manufacturer, to prevent unauthorized adjustment of the device.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-070, filed 12/9/87.]

WAC 204-50-080 Device maintenance and reports. Each lessee shall have the device examined by a factory representative for correct calibration and evidence of tampering every ninety days, or more often as may be ordered by the originating court.

A report on the results of each check shall be provided to the originating court. The report shall reflect what adjustments, if any, were necessary in the calibration of the device, any evidence of tampering, and any other available information the originating court may order.

An additional report shall be provided to OAC on a quarterly basis summarizing all complaints received by the manufacturer for each model or type of certified device. These reports shall be categorized by:

- (1) Customer error of operation.
- (2) Faulty automotive equipment other than the device.
- (3) Apparent misuse of attempts to circumvent the device causing damage.
- (4) Device failure due to material defect, design defect, workmanship errors in construction, installation, or calibration.

Note: Complaints in this category shall be accompanied by a statement of the actions taken to correct the problem(s).

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-080, filed 12/9/87.]

WAC 204-50-090 Device security. The manufacturer shall take all reasonable steps necessary to prevent tampering or physical circumvention of the device. These steps shall include special locks, seals, and installation procedures that prevent or record evidence of tampering and/or circumvention attempts.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-090, filed 12/9/87.]

WAC 204-50-110 Mandatory operational features. Notwithstanding other provisions of this chapter, a certified device must comply with the following:

(1) The device shall be designed to permit a "restart" within three minutes without additional test when the ignition has been turned off.

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- (2) The device shall automatically and completely purge residual alcohol before allowing subsequent tests.
- (3) The device shall be installed in such a manner that it will not interfere with the normal operation of the vehicle after it has been started.
- (4) Each device shall be provided with a supply of disposable mouth pieces with saliva traps. The manufacturer will ensure availability of additional mouth pieces.
- (5) Each device shall be uniquely serial numbered. All reports to an originating court, OAC, and/or ESR concerning a particular device shall include the name and address of the lessee, the name of the originating court, and the unique number of the device.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-110, filed 12/9/87.]

- WAC 204-50-120 Other provisions. Notwithstanding other provisions of this chapter, each manufacturer of a certified device:
- (1) Shall guarantee repair or replacement of a defective device within the state of Washington within a maximum of forty-eight hours of receipt of a complaint.
- (2) Shall provide the originating court and the lessee a statement of charges clearly specifying warranty details, monthly lease amount, any additional charges anticipated for routine calibration and service checks and what items, if any, are provided without charge.
- (3) Upon installation of each device, the manufacturer will provide ESR with a copy of the statement of charges referred to above. The statement shall include the name, address, and telephone number of the lessee and the originating court.
- (4) Shall provide written notice of any changes in the statement of charges regardless of what person or agency requested the change.
- (5) Shall provide to all lessees at the time of installation:
- (a) A list of all calibration/service locations in the continental United States. The list shall include the business name, address, and telephone number of all such locations.
- (b) A twenty-four hour telephone number to call for service support for those who may be traveling outside service areas.
- (6) Shall provide to OAC and ESR proof of insurance with minimum liability limits of one million dollars per occurrence, with three million dollar aggregate total. The liability covered shall include defects in product design and materials, as well as workmanship during manufacture, calibration, installation, and removal. The proof of insurance shall include a statement from the insurance carrier that forty-five days notice shall be given to ESR prior to cancellation.
- (7) Shall report to the originating court and ESR any requests to disconnect or circumvent without court order any device of their own or another manufacturer. Manufacturer shall not comply with any such request.
- (8) Shall advise the originating court prior to removing the device under circumstances other than:
- (a) Completion of sentence, or other terms of a court order.

(b) Immediate device repair needs.

Note: Whenever a device is removed for repair and cannot immediately be reinstalled, a substitute device shall be utilized. Under no circumstances shall a lessee's vehicle be permitted to be driven without a required device.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-120, filed 12/9/87.]

WAC 204-50-130 Removal procedures. When so notified in writing by the originating court, the manufacturer shall remove the device and return the vehicle in normal operating condition. A final report (see WAC 204-50-080) shall be forwarded to the originating court that includes a summary of all fees paid by the lessee over the life of the contract.

[Statutory Authority: 1987 c 247. 88-01-020 (Order 87-05-ESR), § 204-50-130, filed 12/9/87.]

### Chapter 204-52 WAC MOTORCYCLISTS' EYE PROTECTION

204-52-010	Promulgation.
204-52-020	Definitions.
204-52-030	Eye protective devices.
204-52-040	Materials.
204-52-050	Lens strength—Testing procedures.
204-52-060	Flammability test—Plastics only.
204-52-070	Optical properties of eye protective devices.
204-52-080	Light transmitting ability of eye protective devices.
204-52-090	Cleansing.
204-52-100	Identification and labeling.

WAC 204-52-010 Promulgation. By authority of RCW 46.37.005 and 46.37.530[(1)](b), the state commission on equipment hereby adopts the following rules and regulations pertaining to the requirements of motorcyclists' eye protection.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79–02–084 (Order 7503A), § 204–52–010, filed 2/7/79.]

- WAC 204-52-020 Definitions. (1) Eye glasses the term "eye glasses" shall include spectacles, sunglasses, or goggles having two separately mounted lenses, but shall exclude contact lenses.
- (2) Goggles the term "goggles" is an optical device worn before the eyes, the predominant function of which is to protect the eyes without obstructing peripheral vision. They provide protection from the front and sides and may or may not form a complete seal with the face.
- (3) Face shield the term "face shield" is an eye protector attached to a helmet or headband(s) and which covers the wearer's eyes and face at least to a point approximately to the tip of the nose and whose predominant function is protection of the eyes.
- (4) Headband the term "headband" is that part of the device consisting of a supporting band or other structure that either encircles the head or protective helmet, or can be attached thereto.
- (5) Frame the term "frame" is those parts of eye glasses or goggles containing the lens housings. The frame may be associated with padding.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-020, filed 2/7/79.]

WAC 204-52-030 Eye protective devices. (1) To be considered an eye protective device, or EPD, under this regulation, a device must be one of the following:

- (a) Goggles
- (b) Face shield
- (c) Eye glasses
- (i) Each lens shall have a convex frontal surface, or be an ophthalmic corrective lens.
- (ii) Each lens shall have a minimum area of three square inches or 19.356 square centimeters. The horizontal diameter (or side-to-side measurement) shall be no less than two inches or 50 millimeters. The vertical diameter (or top-to-bottom measurement) shall be no less than 1 1/2 inches or 38 millimeters. A diameter shall pass through a point on the lens that is intended to be directly in front of the pupil of the eye when the wearer is looking straight ahead.
- (2) Optical correction of a person's vision, where required or desired, may be provided either:
- (a) By an EPD that provides the proper optical correction, or
- (b) By personal corrective lenses worn under an EPD that does not disturb the adjustment of those lenses.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-030, filed 2/7/79.]

WAC 204-52-040 Materials. (1) All parts of an EPD shall be free from sharp edges or projections that could cause harm or discomfort to the wearer.

- (2) Material(s) utilized in any portion of an EPD shall be of durable quality; i.e.: Material characteristics shall not undergo appreciable alterations under the influence of aging or of the circumstances of use to which the device is normally subjected (exposure to sun, rain, cold, dust, vibrations, contact of the skin, effects of sweat, or of products applied to the hair or skin).
- (3) A headband shall be capable of holding the EPD securely under normal operating conditions. It shall be capable of easy adjustment and replacement.
- (4) Material(s) commonly known to cause skin irritation or disease shall not be used for those parts of the device which come into contact with the skin.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-040, filed 2/7/79.]

WAC 204-52-050 Lens strength—Testing procedures. (1) Helmet—mounted face shields shall be tested while attached to an appropriate medium—size helmet supplied by the manufacturer of the face shield, which shall be mounted on a standard head form. An EPD not designed to be attached to a helmet shall be tested on a standard human head form. Each EPD shall be located in a position simulating its position in actual use.

(2) A steel projectile 3/8 inches in diameter, weighing 1.56 ounces approximately 2 1/2 inches long with a conical point of 90 degrees included angle, the point having a spherical radius no greater than .020 inches and a hardness of  $60(\pm 10)$  on the Rockwell "C" scale, shall be freely dropped from a height of 14 feet above

the EPD. The projectile may be guided, but not restricted in its vertical fall by dropping it through a tube extending to within approximately 4 inches of the impact area. The impact area must be on the forward optical surface and within 1-inch diameter circle centered over the eye opening. The impact point shall be perpendicular to a plane tangent to the impact area.

(3) The EPD shall not allow penetration of the projectile through the EPD. Cracking or piercing of the EPD is permissible provided that the projectile does not pass through or remain lodged in the EPD lens, but is repulsed by the EPD, and that no particles of the EPD shall break loose from any eyeward surface of the EPD.

(4) Tests shall be performed at room temperature (65 degrees to 85 degrees F) under normal humidity conditions.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-050, filed 2/7/79.]

WAC 204-52-060 Flammability test—Plastics only. (1) Where plastic materials are used in an EPD, such materials shall be noncombustible or slow burning. Such plastic items shall be exposed to a test to determine the flame—propagation rate. The specimen shall be ignited by holding one end of the specimen horizontally at the top of a luminous 3/4-inch Bunsen burner flame in a draft—free room. The rate of propagation of burning, after removing the flame from the specimen, determined by a stop watch, shall be one inch or less per 24 seconds. A faster rate of propagation shall be cause for rejection.

(2) Cellulose nitrate, or materials having flammability characteristics approximately those of cellulose nitrate, shall not be used.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-060, filed 2/7/79.]

WAC 204-52-070 Optical properties of eye protective devices. (1) Lenses of EPD's shall comply with the following requirements:

- (a) Lenses shall be made of material suitable for ophthalmic use, and shall be free from striae, waves, bubbles, or any other defects which may impair their optical quality.
- (b) The prismatic effect of a noncorrective lens shall not exceed 1/8 diopter at any point with the specified minimum field of vision. In the case of eye glasses, each noncorrective lens shall comply with the limitation of prismatic effect.
- (c) In any meridian, the refractive power of a noncorrective lens shall not exceed plus or minus 1/8 diopter and the difference between the refractive powers in any two meridians shall not exceed 1/8 diopter.
- (d) The definition afforded by a noncorrective lens shall be such that a line pattern with lines separated not more than 24 seconds of angle shall be clearly distinguishable when viewed through the lens.
- (e) The compliance of a lens with the prismatic effects, refractive power, and definition requirements of subparagraphs (a), (b), and (c) of this subsection shall be determined in accordance with those test methods described in Sections 6.3.4.1.1, 6.3.4.1.2, and 6.3.4.1.3 of

the American National Standards Institute Standard Z87.1–1968, September 18, 1968, "Eye and Face Protection" and explained in Section 10.1 of the National Bureau of Standards Circular 533, May 20, 1953, "Method for Determining the Resolving Power of Photographic Lenses." In order to maintain consistency in the results of tests conducted by various organizations, the following test requirements must be met:

- (i) An 8-power telescope with focusing arrangement to accommodate the refractive effects of both positive (converging) and negative (diverging) lenses placed between the telescope and test chart shall be used. The illuminated target and test chart shall be a central dot and a concentric circle one inch in diameter plus one of the high contract ("black and white") NBS Resolution Test Charts, dated 1952, and printed on "Lens Resolution Chart to Accompany NBS Circular 533." The chart shall be perpendicularly aligned 35 feet from the objective lens of the telescope when the telescope is properly focused with no test, sample, or other lens between the objective lens and the chart. The center dot and the periphery of the concentric circle one inch in diameter shall be used when testing for prismatic effect. The test pattern marked "20" shall be used when testing for refractive power and when testing for definition. Standard lenses of plus or minus 1/8 diopter shall be used when testing for refractive power.
- (ii) Other standard methods of test or examination that are equivalent or superior, as regards to accuracy, quality, and consistency of results to the above (subparagraph (i)) specified National Bureau of Standards methods, may be used to determine compliance only when such methods are approved by the state official to whom such approving authority has been assigned, or delegated, through due process of applicable state law.
- (2) Minimum horizontal field of vision. Except as provided in subparagraph (a) of this subsection, each EPD shall not obstruct a horizontal field of vision to at least 105 degrees to the right side of the plane that passes through the pupil of the right eye looking straight ahead, and at least 105 degrees to the left side of the plane that passes through the pupil of the left eye looking straight ahead, and are parallel to the midsagittal plane.
- (a) The specified minimum horizontal field of vision shall be unobstructed except that the horizontal field provided by the spectacles or sunglasses may be obstructed by the frame in a sector no greater than 7 1/2 degrees in horizontal angular width and located between 50 degrees and 80 degrees of the pertinent sagittal plane passing through the eye pupil when looking straight ahead.
- (b) When ascertaining the horizontal field of vision afforded by eyeglasses, the pupil of the eye shall be assumed to be located 17 mm behind the point on the rear surface of the lens where the horizontal and vertical diameters intersect. When ascertaining the horizontal field of vision of EPD's other than eyeglasses, the assumed location of the pupil of the eye relative to the structures of the EPD shall be that location which is most likely to

occur when the EPD is attached and worn in accordance with its manufacturer's instructions.

(c) No portion of the minimum horizontal field of vision shall be obstructed by a temple piece, headband, helmet, helmet attaching device, or any other supporting or attaching device.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79–02–084 (Order 7503A), § 204–52–070, filed 2/7/79.]

- WAC 204-52-080 Light transmitting ability of eye protective devices. (1) A "clear" EPD shall transmit not less than eighty-five percent of the incident visible radiation. An EPD transmitting less than eighty-five percent of incident visible radiation shall be considered "tinted".
- (a) A "tinted" EPD shall not impair the wearer's ability to discern color.
- (b) A "tinted" EPD shall not be used at any time from a half hour after sunset to a half hour before sunrise and at any other time when due to insufficient light or unfavorable atmosphere conditions, persons and vehicles on the highway are not clearly discernible at a distance of 500 feet ahead.
- (2) Luminous transmittance test. The standard source of radiant energy used in the measurement of luminous transmittance shall be a projection type lamp No. T-8 (or other high-powered, gas-filled tungsten filament incandescent lamp) operated at the color temperature (2854K) corresponding to CIE Source A. The luminous transmittance shall be determined by one of the following means:
- (a) Photometrically by an observer having normal color vision, as determined by recognized color vision chart tests such as those employing pseudo-isochromatic plates.
- (b) With a physical photometer consisting of a thermopile (or other radiometer) and luminosity solution having a special transmittance curve which coincides closely with the luminous efficiency curve of the average eye.
- (c) By measuring the special transmittance and calculating the luminous transmittance through the use of published data on the spectral radiant energy of CIE Source A and the relative luminous efficiency of the average eye.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79-02-084 (Order 7503A), § 204-52-080, filed 2/7/79.]

WAC 204-52-090 Cleansing. All EPD materials shall be such as to withstand, without visible deterioration, washing in ordinary household detergents and warm water, and rinsing to remove visible traces of detergents.

[Statutory Authority: RCW 46.37.005 and 46.37.530, 79–02–084 (Order 7503A), § 204–52–090, filed 2/7/79.]

WAC 204-52-100 Identification and labeling. Eye protective devices, manufactured to comply with the requirements of this regulation and approved by the commission on equipment, shall be identified and labeled as follows:

- (1) The EPD shall be permanently marked in a manner not to interfere with the vision of the wearer.
- (2) The manufacturer's or distributor's trade name and model name or number, which shall correspond with the name and number under which the device has been approved or certified.
- (3) That the device meets the standard VESC-8. Where space is limited, V-8 may be used in lieu of VESC-8.

The information required under WAC 204-52-100 (1), (2) and (3) plus the corporate or business name and address of either the actual manufacturer or the marketer assuming the responsibilities of the manufacturer shall be imprinted on the container in which the EPD is packed and on any instruction sheet(s) pertaining to the EPD.

The following statement shall appear in a prominent location on the container or label accompanying each tinted eye protective device: THIS TINTED EYE PROTECTIVE DEVICE IS FOR DAYTIME USE ONLY.

[Statutory Authority: RCW 46.37.005 and 46.37.530. 79–02–084 (Order 7503A), § 204–52–100, filed 2/7/79.]

# Chapter 204–56 WAC PROCEDURES FOR MEASURING MOTOR VEHICLE SOUND LEVELS

WAC	
204-56-015	Introduction.
204-56-025	Definitions.
204-56-035	Personnel and equipment.
204-56-045	Ambient conditions and equipment preparation.
204–56–055	Procedure for measuring in-use, on highway motor vehicle sound levels.
204–56–065	Procedure for measuring stationary truck sound levels.
204–56–075	Procedure for measuring in-use motor vehicle exhaust system sound levels.
204–56–085	Procedures for measuring new motor vehicle sound levels.
204-56-99001	Microphone height for measurement of in-use vehi- cles on the highway.
204-56-99002	Patrol mounted microphone location.
204–56–99003	In-use vehicle—Standard measuring site—Nonpatrol car mounted microphone.
204-56-99004	In-use vehicle—Restricted measuring site.
204-56-99005	Correction factors for measuring distance.
204-56-99006	Narrow objects near the microphone.
204-56-99007	Basically parallel surfaces with projections.
204–56–99008	Basically parallel surfaces with perpendicular surfaces.
204–56–99009	Measurement of distance to reflecting surface (embankment).
204-56-99010	Distances "D" and "L."
204-56-99011	Nomogram for reflecting surfaces.
204-56-99012	Exhaust system measurement site.
204-56-99013	Microphone locations for exhaust system

#### DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

measurements.

204-56-010	Introduction. [Order /604, § 204-36-010, filed
	2/24/76.] Repealed by 82-11-040 (Order 82-05-
	02), filed 5/12/82. Statutory Authority: RCW 70-
	.107.070 and 46.37.005,
204-56-020	On-highway sound level measurements. [Order 7604,
	§ 204-56-020, filed 2/24/76.] Repealed by 82-11-

040 (Order 82-05-02), filed 5/12/82. Statutory Authority: RCW 70.107.070 and 46.37.005.

204-56-030 Stationary vehicle sound level measurement. [Order 7604, § 204-56-030, filed 2/24/76.] Repealed by 82-11-040 (Order 82-05-02), filed 5/12/82. Statutory Authority: RCW 70.107.070 and 46.37.005.

204-56-040 Static test site for vehicle sound level measurement. [Order 7604, § 204-56-040, filed 2/24/76.] Repealed by 82-11-040 (Order 82-05-02), filed 5/12/82. Statutory Authority: RCW 70.107.070 and 46.37.005.

204-56-050 New motor vehicle noise limits procedure. [Order 7604, § 204-56-050, filed 2/24/76.] Repealed by 82-11-040 (Order 82-05-02), filed 5/12/82. Statutory Authority: RCW 70.107.070 and 46.37.005.

WAC 204-56-015 Introduction. (1) Authority. Statutory and administrative law governing authority for the guidance and direction contained in these procedures is authorized by RCW 70.107.070 and WAC 173-62-030.

- (2) Scope. The commission on equipment has established a sound measurement program to implement the laws and regulations applying to motor vehicle related noise. The program includes sound level measurements of in-use motor vehicles, and testing of new motor vehicles.
- (3) Responsibilities. Law enforcement authorities are responsible for the operation of the in-use motor vehicle noise measurement program within their areas of jurisdiction.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-015, filed 5/12/82.]

WAC 204-56-025 Definitions. As used in this chapter, unless the context clearly indicates otherwise:

- (1) "dB(A)" means the sound level in decibels measured using the "A" weighting network on a sound level meter as specified in the American National Standard Specification for sound level meters S1.4–1971. A decibel is a unit of sound, based on a logarithmic scale, of the ratio of the magnitude of a particular sound pressure to a standard reference pressure of 20 micropascals;
- (2) "Gross vehicle weight rating (GVWR)" means the value specified by the manufacturer as the maximum loaded weight of a vehicle;
- (3) "In-use" motor vehicle is any motor vehicle which is used on the public highway;
- (4) "Maximum RPM" means the engine speed (RPM) specified by the manufacturer as either the engine speed at which rated engine horsepower occurs or the maximum speed of the engine, whichever is lower, in accordance with SAE Standard J1349 DEC 80 "Engine Rating Code Spark Ignition and Diesel";
- (5) "Microphone line" means an unmarked reference line running parallel to the vehicle path (roadway) and passing through the microphone;
- (6) "Microphone point" means the unmarked location on the center of the lane of travel that is closest to the microphone;
- (7) "Motorcycle" means any motor vehicle having a saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, except farm tractors;

- (8) "Motor vehicle" means any vehicle which is self-propelled, used primarily for transporting persons or property upon public highways and required to be licensed under RCW 46.16.010 (aircraft, water craft, and vehicles used exclusively on stationary rails or tracks are not motor vehicles as that term is used herein);
- (9) "Muffler" means a device consisting of a series of chambers or other mechanical designs for the purpose of receiving exhaust gas from an internal combustion engine and effective in reducing noise to comply with the standards of chapter 173–62 WAC;
- (10) "New motor vehicle" means a motor vehicle manufactured after December 31, 1975, for which the equitable or legal title has never been transferred to a person who, in good faith, purchases the new motor vehicle for purposes other than resale;
- (11) "Off-highway vehicle" means any self-propelled vehicle not used primarily for transporting persons or property upon public highways nor required to be licensed under RCW 46.16.010;
- (12) "Person" means any individual, corporation, partnership, association, governmental body, state agency, or other entity whatsoever;
- (13) "Public highway" means the entire width between the boundary lines of every way publicly maintained by the department of highways or any county or city when any part thereof is generally open to the use of the public for purposes of vehicular travel as a matter of right;
- (14) "Sound level" means a weighted sound pressure level measured by use of a sound level meter using an "A" weighting network and reported as dB(A);
- (15) "Sound level meter" means a device which measures sound pressure levels and which satisfies the requirements of WAC 204-56-035(4).

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-025, filed 5/12/82.]

- WAC 204-56-035 Personnel and equipment. (1) Training of personnel. Any person who measures sound levels for enforcement of the noise limits in chapter 173-62 WAC shall have received training in the use of equipment and measuring site selection as described in this chapter.
- (2) Positioning of personnel. The enforcement officer making direct readings of the sound level meter shall be positioned in relation to the microphone in accordance with the microphone manufacturer's instructions. Where the instruction manual is vague or does not include adequate information, a specific recommendation shall be obtained from the manufacturer.
- (3) Positioning of bystanders. During sound measurements bystanders shall not be within 10 feet (3 meters) of the microphone or the vehicle being measured, except for a witness or a trainee, who may be positioned directly behind the officer reading the sound level meter and on a line with the officer and the microphone.
- (4) Equipment requirements. The following describes the minimum requirements which equipment must satisfy to be used for the measurement procedures of this chapter.

- (a) Sound level meter. Measurements for enforcement purposes shall be made with a sound level meter which: For measuring new motor vehicles meets or exceeds the requirements for Types 1 or S1A meters, or for measuring in-use motor vehicles meets or exceeds the requirements for Types 2 or S2A meters, as described in the American National Standard Specification for Sound Level Meters S1.4–1971, or; which meets or exceeds the requirements of the International Electrotechnical Commission Publication 179, "Precision Sound Level Meters." As an alternative to a sound level meter, a sound measurement system using a microphone or a sound level meter, with a magnetic tape recorder, graphic level recorder, or other indicating instrument may be used provided the system meets the requirements of SAE J184a. Sound level meters which meet the requirements for Type 3 meters in ANSI S1.4-1971 may be used for initial inspection procedures, but not for enforcement purposes. Sound level meters shall be calibrated and certified at least once every two years to meet American National Standards Institute Specification \$1.4-1971.
- (b) Sound level calibrator. An acoustically coupled calibrator shall be used periodically to assure the accuracy of the sound level meter and microphone. The calibrator shall be calibrated and certified at least once a year by the manufacturer or a certified laboratory.
- (c) Tachometer. A tachometer shall be used to measure the RPM for motor vehicles tested under the procedures of WAC 204-56-075. Calibration accuracy for tachometers shall be at least  $\pm$  3 percent of full scale reading. Tachometers shall be calibrated at least once every two years in accordance with the manufacturer's calibration procedures. Vibrating reed tachometers shall be deemed to meet the accuracy requirement if not visibly damaged.
- (d) Windscreen. A windscreen of open cell foam, or any other type as recommended by the manufacturer of the sound level meter, shall be placed over the microphone after calibration to protect it from moisture, exhaust gases, and wind effects.
- (e) Anemometer. An anemometer with an accuracy of  $\pm$  10 percent of the reading for windspeeds of 12 to 20 mph (19 to 32 km/h) shall be used to measure the windspeed at the measurement site.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-035, filed 5/12/82.]

- WAC 204-56-045 Ambient conditions and equipment preparation. (1) Ambient conditions. The following ambient conditions shall be observed during measurements and shall determine whether testing is to occur or not:
- (a) Wind. Sound level measurements shall not be made when the wind speed at the microphone position is in excess of:
- (i) 20 mph (32 km/hr) for the exhaust system test, WAC 204-56-075;
  - (ii) 12 mph (19 km/hr) for all other tests;
- (b) Precipitation. Sound level measurements shall not be made when precipitation is falling in such a way as to affect the equipment or the measurement reading. For

tests other than the exhaust system measurement procedure (WAC 204-56-075), the ground surface shall not be wet, or covered with snow or ice;

- (c) Background sound level. Sound level measurements shall not be made when the difference between the background sound level and the level of the measured sound source is less than 10 dB(A).
- (2) Equipment preparation. For enforcement purposes the following procedures shall be used to prepare the sound level meter for the measurement of motor vehicle noise levels:
- (a) Battery check. A battery check shall be conducted on all instruments before field calibration and measurement. Batteries which are in low-charge condition shall be replaced;
- (b) Calibration. Sound level meters shall be field calibrated using procedures described in the manufacturer's instruction manual, at the beginning and end of each measurement period, and at intervals not exceeding two hours when the instrument is used for more than a two-hour period;
- (c) Microphone orientation. The microphone shall be oriented with respect to the sound source as described in the manufacturer's instruction manual;
- (d) Meter characteristics. For all measurement procedures in this chapter the sound level meter shall be set to the A-weighted scale. The response mode ("fast"/"slow") shall be set as specified in the particular procedure being used.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-045, filed 5/12/82.]

- WAC 204-56-055 Procedure for measuring in-use, on highway motor vehicle sound levels. (1) Scope. This section describes the procedure for selecting sites and for operating equipment to measure the sound levels of motor vehicles on the highway, for the purpose of enforcing the limits of WAC 173-62-030(1), Table I.
- (2) Site selection. Generally, the measurement site should be an open, relatively flat area containing a minimum number of obstructions and reflective surfaces within 50 feet (15.2 meters) of the microphone or the microphone point. In addition, the measurement site shall be subject to the following restrictions:
- (a) Road surface. Roadways shall be paved with relatively smooth asphalt or concrete, shall be dry, and shall be relatively free of holes, grooves, loose material, such as sand or gravel, or other surface irregularities;
- (b) Tunnels and overpasses. Sound measurements shall not be made within 100 feet of a tunnel or overpass through which the roadway passes;
- (c) Overhangs. The microphone and microphone point shall not be within 50 feet (15.2 meters) of any overhang exceeding 2 feet (.6 meter) measured perpendicular to the lane of travel (eaves, awnings, balconies, etc.);
- (d) Reflecting surfaces close to microphone. Sound-reflecting surfaces shall be no closer than 10 feet (3 meters) from the microphone line, except for the patrol car or patrol motorcycle during patrol-mounted measurements;

- (e) Reflecting surfaces close to lane of travel. Sound-reflecting surfaces within the measurement area shall be no closer than 10 feet (3 meters) from the center of the lane of travel;
- (f) Highway ramps. Measurement sites shall not be located along highway entrance or exit ramps.
  - (3) Equipment set-up and operation.
- (a) Microphone location. The microphone shall be located within 21 to 118 feet (6.4 to 36 meters) of the center of the lane of travel.
  - (b) Microphone height.
- (i) Fixed procedure. The microphone shall be mounted on a tripod if an extension cable is used. If the microphone is attached to the sound level meter, the meter may be mounted on a tripod or hand held. The microphone shall be stationary, at a height of not less than 2 feet (0.6 meter) nor more than 10 feet (3 meters) above the plane of the roadway surface and not less than 3.5 feet (1.1 meters) above the ground. (See WAC 204–56–99001.)
- (ii) Patrol-mounted procedure. For patrol motorcycles, the sound level meter with microphone attached shall be hand-held, and shall be no closer than 16 inches (.4 meter) to any part of the motorcycle. For patrol cars, the microphone shall be located on a boom attached to the roof above the center of the rear door window, or to the light bar, on the side of the car closest to the measured lane of travel, and shall be no less than 16 inches (.4 meters) above the light bar, or roofline when window or gutter mounted, nor more than 2 feet (.6 meter) above the roof of the patrol car in either case. For all patrol-mounted measurements the microphone shall be at a height of no less than 2 feet (.6 meter) nor more than 10 feet (3 meters) above the level of the roadway. (See WAC 204-56-99002.)
- (c) Meter response mode. The meter shall be set to the "fast" response mode.
- (4) Types of sites. Two types of sites are established for measuring motor vehicles. The "standard measuring site" requires a large clear open area with the microphone at 48 to 58 feet (14.6 to 17.7 meters) from the center of the lane of travel (see WAC 204-56-99003). The "restricted measuring site" may contain sound-reflecting objects (including the patrol vehicle during patrol-mounted measurements) within the measurement area and/or the microphone may be located outside the distance range allowed for the standard site (see WAC 204-56-99004). When selecting a measuring site, the area shall be measured to determine if a correction factor must be applied.
- (a) Standard measuring site. When making measurements of motor vehicle sound levels in standard measuring sites, the instrument readings shall be recorded with no correction factor applied for microphone distance. (See WAC 204-56-99003.)
- (b) Restricted measuring site. When making measurements of motor vehicle sound levels in restricted measuring sites, the proper correction factors for distance, reflecting surfaces, and/or patrol vehicle effects shall be applied as described below.

- (i) Correction for measuring distance. This factor will correct the reading to what it would be if the vehicle were measured at the standard distance of 50 feet (15.2 meters). The actual distance from the microphone to the microphone point in the restricted site may range from 21 to 118 feet (6.4 to 36 meters). The correction factor shall be obtained from WAC 204-56-99005.
- (ii) Surfaces and objects not requiring correction. The following surfaces and objects within the measurement site do not require a correction factor:
- (A) Any object, such as telephone booth, utility pole, mailbox, fire hydrant, or tree trunk, with width measured parallel to the motor vehicle path of less than 8 feet (2.4 meters), regardless of height. Such objects must be either on the opposite side of the vehicle path from the microphone, or more than 10 feet (3 meters) from a line passing through the microphone and the microphone point (see WAC 204-56-99006);
- (B) Any surface or object less than 1 foot (.3 meter) in height, regardless of length, such as curbs or guard rails;
- (C) Any type of traffic railing, except solid barriers with the lower edge more than 2 feet (.6 meter) above the roadway;
- (D) Any vertical surface, such as a billboard, with the lower edge more than 15 feet (4.6 meters) above the roadway:
- (E) Any uniformly smooth surface slanting away from the roadway (such as a rise in grade alongside the road) with a slope less than 45 degrees from the horizontal;
- (F) Any uniformly smooth surface slanting away from the roadway with a 45 to 90 degree slope from the horizontal if the surface slope begins to exceed 45 degrees at a point more than 15 feet (4.6 meters) above the roadway;
- (G) Chain link fences, or any vegetation such as bushes, shrubs, small trees, hedges, and grass.
- (iii) Sound reflecting surfaces and objects requiring correction. A sound reflecting surface is any building, billboard, hillside, or similar object within the measurement area that reflects sufficient sound to affect the sound level readings obtained from passing motor vehicles, and which does not satisfy the requirements of paragraph (ii) above. Sound level measurements may be made with appropriate corrections when sound reflecting surfaces are within the measurement site. Measurements may be made only when the sound reflecting surfaces are basically parallel to the vehicle path. (See WAC 204–56–99007.)
- (A) A basically parallel surface may have irregularities or projections measured perpendicular to the lane of travel, with the distance to the microphone line or vehicle path measured from the closest point of the projection.
- (B) Surfaces that are perpendicular to the lane of travel behind a parallel surface for which corrections are made, such as a fence or the side walls of a building do not need corrections computed. (See WAC 204-56-99008.)
- (C) Distance measurements from embankments covered with vegetation, concrete, asphalt, dirt, or other

- relatively smooth cover shall be made from the point where the slope begins to exceed 45 degrees above horizontal. (See WAC 204–56–99009.) Measurements from nonsmooth embankments shall be made from the point where the irregularities begin.
- (D) Measurement sites containing sound reflecting surfaces basically parallel to the vehicle path may be used by measuring the distances "D" and "L" shown in WAC 204-56-99010 and applying the correction factor obtained from the nomogram in WAC 204-56-99011. Measurement "D" is the shortest distance between the sound reflecting surface in front of the lane of travel and the centerline of the lane of travel. Measurement "L" is the shortest distance between the sound reflecting surface behind the microphone line and the microphone line.

To use the nomogram, locate the points on the left and right scales of WAC 204-56-99011, corresponding to the distances "D" and "L" in WAC 204-56-99010. Place a straight edge across the nomogram so that it connects the two points. The point where the straight edge intersects the center axis indicates the correction factor to be applied.

- (5) Additional effects to be considered during measurement. The following effects may or may not occur during sound level measurements of motor vehicles on the roadway. Enforcement personnel must be aware of these effects and must consider them accordingly when recording vehicle sound levels.
- (a) A sound level shall not be recorded if the motor vehicle is operating with snow tires, studded tires, or snow chains, as these devices may cause the reading to be higher than the level the vehicle is actually emitting. However, if the vehicle exhaust or powertrain sound level appears to be the predominant source, the vehicle may be measured in accordance with procedures in WAC 204-56-075 to determine possible violation of WAC 173-62-030(4), Table II.
- (b) Sound level readings shall not be recorded while a motor vehicle is undergoing safety or emergency related maneuvers.
- (c) Sound level readings shall not be acceptable if the operator of the motor vehicle has sounded his vehicle's horn. Blowing of the horn for the purpose of interfering with measurement of the vehicle sound level is not a lawful use of the horn and shall be deemed a violation of RCW 46.37.380.
- (d) Sound level readings for a vehicle may be obtained regardless of road grade, vehicle load, vehicle acceleration, or vehicle deceleration.
- (e) Because of heavy traffic conditions, more than one motor vehicle at a time may be within the measurement area. To insure that an accurate reading is obtained, the sound level of the vehicle under scrutiny must rise at least 6 dB(A) before and fall at least 6 dB(A) after the maximum sound level occurs.
- (f) During patrol-mounted measurements, sound emissions from a patrol vehicle's radio or idling engine shall be at least 10 dB(A) below the noise limits set by chapter 173-62 WAC together with any applied correction factor.

(6) Equipment variation allowances.

Due to instrument production and design tolerances, the following allowances shall be made for the respective sound level meters during enforcement:

- + 1 dBA for ANSI certified Type 1 sound level meters
- + 2 dBA for ANSI certified Type 2 sound level meters

This value shall be applied, either to the standard or the meter reading. (See WAC 204-56-055(8).)

- (7) Corrections for patrol-vehicle mounted measurements.
- (a) Patrol motorcycles. For patrol motorcycles a correction factor of + 2 dBA shall be applied, either to the standard or the meter reading. (See WAC 204-56-055(8).)
- (b) Patrol cars. For patrol cars parallel to the roadway a correction factor of + 3 dBA shall be applied and patrol cars monitoring while perpendicular to the roadway a correction factor of + 2 dBA shall be applied, either to the standard or meter reading. (See WAC 204-56-055(8).)
- (c) Corrections for patrol-mounted measurements shall be in addition to the corrections applied for the sound level meter, distances, and other reflecting surfaces.
- (8) Calculating corrections to vehicle standards or meter readings. During enforcement monitoring, the officer may compare actual meter readings (AMR) to a corrected standard (CST) or compare a corrected meter reading (CMR) to the actual standards (AST). The method used is at the discretion of the enforcement officer. The corrections that must be considered when calculating a corrected standard (CST) or corrected meter reading (CMR) are: Equipment tolerances (ET) (see WAC 204-56-055(6)), patrol-vehicle mounted tolerances (PT) (see WAC 204-56-055(7)), and site tolerances (distance (DT) and reflection (RT)) (see WAC 204-56-055 (4)(b)(iii) and 204-56-99010 and 204-56-99011).
- (a) To derive the corrected standard (CST) (enforcement level) you must add the tolerances to the actual standard (AST). Positive (+) corrections are added to the actual standard while negative (-) corrections are subtracted from the actual standard.

(CST = AST + ET + PT + DT + RT)

(b) To derive the corrected meter reading (CMR) (that level reported as the level of the vehicle when comparing it to the actual standard (AST)) you must subtract the tolerances from the actual meter reading (AMR). Positive (+) corrections are subtracted from the meter reading while negative (-) corrections are added to the meter reading. Therefore if (DT) or (RT) are negative (-) values, they must be added to the meter reading.

#### (CMR = AMR - ET - PT - DT - RT)

Note: Do not compare a corrected meter reading (CMR) with a corrected standard (CST) as this may result in a false indication of violation. Only compare (CMR to AST) or (AMR to CST) to determine a violation.

(9) Interstate motor carriers with GVWR over 10,000 pounds. Trucks licensed as interstate motor carriers with GVWR over 10,000 pounds shall be measured in accordance with the latest procedures adopted in the department of transportation bureau of motor carrier safety regulations for enforcement of motor carrier noise emission standards.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-055, filed 5/12/82.]

WAC 204-56-065 Procedure for measuring stationary truck sound levels. (1) Scope. This section specifies the procedure for measuring the sound level generated by a motor vehicle that has a GVWR of more than 10,000 pounds when the vehicle's engine is rapidly accelerated from idle to governed speed at wide open throttle with the vehicle stationary, its transmission in neutral, and its clutch engaged.

(2) Procedure. Measurements shall be made in accordance with the latest procedures established in the department of transportation bureau of motor carrier safety regulations for enforcement of motor carrier noise emission standards.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-065, filed 5/12/82.]

WAC 204-56-075 Procedure for measuring in-use motor vehicle exhaust system sound levels. (1) Scope. The procedure described in this section is intended to measure noise emitted from exhaust systems of stationary motor vehicles at a minimum distance of 20 inches (.5 meter) from the exhaust outlet. The actual measurement distance may be greater than 20 inches (.5 meter) under circumstances where the exhaust outlet ends under the body of the motor vehicle. The procedure allows testing at sites limited in open space, and measures levels for enforcement of the limits in WAC 173-62-030(4), Table II.

- (2) Initial inspection. An initial inspection of the motor vehicle may be performed to determine if the motor vehicle shall be submitted to a visual inspection of the exhaust system for defects, or if the motor vehicle shall be submitted to the procedure for measuring the exhaust system sound level.
- (a) Evaluation of sound level. An evaluation of the exhaust system sound level shall be made by the enforcement officer, using the human ear as a sensing device. If under any operating conditions the vehicle exhaust noise is discernibly louder than the vehicle engine and/or tire noise, then the enforcement officer may require that the vehicle exhaust system be submitted to the visual inspection described in paragraph (b) below, and/or to the sound level measurement procedure described in this section. Sound level measurements of such vehicles may be performed at off-road sites for application of the in-use standards.
- (b) Visual inspection. A visual inspection of the motor vehicle exhaust system may be performed to determine if the following defects or modifications exist:
  - (i) The absence of a muffler;

- (ii) The presence of a muffler cut-out, bypass, or similar device;
- (iii) The presence of defects in the exhaust system including, but not limited to, holes in the muffler or pipes, (except holes specifically designed for water drainage) pinched outlets, or rusted through areas of the muffler or pipes;
- (iv) The presence of equipment designed to produce excessive or unusual noise from the exhaust system.

If these defects or modifications exist, the owner of the motor vehicle shall be in violation of RCW 46.37-.390 and/or WAC 173-62-030(2).

- (3) Measurement site. The measurement site shall be a relatively flat, open area free of large, vertical sound reflecting surfaces (such as signboards, buildings, hill-sides, or other motor vehicles) located within a radius of 16 feet (5 meters) from the test vehicle and the microphone. The test vehicle shall not be on a hoist, rack, or over a pit. Measurements shall not be made within a shop or building. No one shall be in the measurement area except the enforcement officer, a witness or trainee, and the motor vehicle operator. (See WAC 204–56–99012.)
  - (4) Equipment set-up and operation.
- (a) The microphone may be mounted on a tripod or other support, or if the microphone is attached to the sound level meter the meter may be handheld or mounted on a tripod.
- (b) The microphone shall be at the same height as the center of the exhaust outlet if possible, but not closer to any surface (such as the ground or the test vehicle) than 8 inches (.2 meter). The microphone shall be positioned with its longitudinal axis parallel to the ground, 20 inches (.5 meter) or more (as required to meet the angularity and 8-inch minimum surface distance requirements) from the edge of the exhaust outlet, and at an angle of 45  $\pm$  10 degrees from the axis of the exhaust outlet. For outlets inboard from the vehicle body, the microphone shall be located at the above specified angle and at least 8 inches (.2 meter) from any part of the vehicle. For cases where it is impossible to meet the distance and angularity requirements concurrently, the angle or the total distance of 20 inches may be varied to satisfy the distance requirements of 8 inches from the vehicle body. (See WAC 204-56-99013.)

For motor vehicles provided with two or more exhaust outlets spaced more than 1 foot (.3 meter) apart, measurements shall be made for each outlet and the highest sound level shall be recorded. If the exhaust outlets are 1 foot (.3 meter) or less apart, a single measurement shall be made for any one of the outlets. (See WAC 204-56-99013.)

- (c) During measurement of the sound level, the engine cover (hood, etc., if one exists) shall be closed as much as possible to reduce engine noise.
- (d) A measuring device may be attached to the microphone and/or exhaust outlet to maintain proper distance, but only in a manner such that no vibrations from the motor vehicle are transmitted to the microphone.
- (e) The sound level meter shall be set for "slow" response.

- (5) Motor vehicle operation. The test vehicle shall be operated as follows:
- (a) Motor vehicles weighing 10,000 lbs. GVWR or less. The engine of the motor vehicle shall be operated at a normal operating temperature with transmission in park or neutral. Sound level measurements shall be made at 3/4 (75 percent)  $\pm$  100 RPM of the maximum RPM. Except for motor vehicles with diesel engines, any vehicle may be tested at  $3,000 \pm 100$  RPM in lieu of the 3/4 maximum RPM stipulation if the engine data (maximum RPM) is not readily available to the enforcing officer.
- (b) Vehicles with motorcycle engines. The engine of the vehicle shall be operated at normal operating temperatures with the transmission in neutral. If no neutral is provided, the vehicle shall be operated either with the rear wheel or wheels 2 to 4 inches (5 to 10 centimeters) clear of the ground, or with the drive chain or belt removed. The sound level measurement shall be made with the engine speed stabilized at one of the following values:
- (i) If the engine data is available, test the vehicle at 1/2 (50 percent) ± 100 RPM of the maximum RPM;
- (ii) If the engine data is not available, and if the vehicle has a tachometer showing the manufacturer's recommended maximum engine speed ("red line"), test the vehicle at 1/2 (50 percent)  $\pm$  100 RPM of the "red line" RPM;
- (iii) If the engine data and red line RPM are not available, test the vehicle at:
- (A)  $3500 \pm 100$  RPM for engines with total cylinder displacement between 0 to 950 cc (0 to 58 in.<sup>3</sup>).
- (B)  $2800 \pm 100$  RPM for engines with total cylinder displacement greater than 950 cc (58 in.<sup>3</sup>).
- (6) Reported sound level. The measured sound level shall be the highest value obtained at the specified engine speed, excluding peaks due to unrelated ambient noise, or extraneous impulse—type noise. When more than one exhaust outlet must be checked, the measured sound level shall be for the loudest outlet. For enforcement purposes, the reported sound level shall be the level determined after applying any required meter tolerance corrections to the measured sound level.

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-075, filed 5/12/82.]

- WAC 204-56-085 Procedures for measuring new motor vehicle sound levels. (1) Scope. This section specifies the procedures to be used for measuring the sound levels of new motor vehicles for the purpose of enforcing the new motor vehicle limits established in WAC 173-62-030(4), Table III.
- (2) Motor vehicles with GVWR of 10,000 pounds or less. New motor vehicles with a GVWR of 10,000 pounds or less which have been manufactured after January 1, 1975, shall be measured according to Society of Automotive Engineers (SAE) Standard J986 NOV 81.
- (3) Motor vehicles with GVWR over 10,000 pounds. New motor vehicles with a GVWR greater than 10,000 pounds which have been manufactured after January 1, 1975, shall be measured according to the test procedures

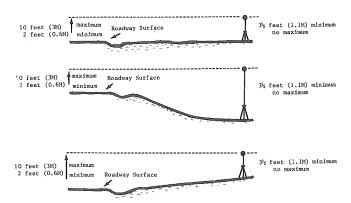
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in Section 205.54 of Title 40, chapter I of the Code of Federal Regulations for new medium and heavy trucks.

- (4) Motorcycles. New motorcycles manufactured after January 1, 1976 shall be measured according to SAE Recommended Practice J331a.
- (5) Buses over 10,000 pounds GVWR. New buses with a GVWR greater than 10,000 pounds which have been manufactured after January 1, 1980 shall be measured according to Society of Automotive Engineers (SAE) Standard J366b. Buses with automatic transmissions that cannot be manually held in gear should be tested according to a modified SAE J366 test procedure as follows:
- (a) Vehicles equipped with automatic transmissions which cannot be manually held in gear shall be operated at full throttle from a standing start so that the first transmission shift occurs with the vehicle reference point in the end zone.
- (b) Place the transmission gear selector in the position normally used for typical driving.
- (c) A starting point along the test path at which the vehicle shall begin the acceleration test shall be determined by the following procedure:
- (i) The vehicle reference point, as specified in SAE J366b, Section 3.7, shall be placed at the midpoint ( $\pm$  0.3m,  $\pm$  1ft.) of the end zone with the front end of the vehicle facing back along the test path in the opposite direction of travel that is used for the sound measurement tests.
- (ii) The vehicle shall than be accelerated as rapidly as possible by establishing wide open throttle, until the first transmission shift point is reached.
- (iii) The location along the test path at which the reference point of the vehicle is passing when the first transmission shift point occurs during the wide open throttle acceleration shall be the designated stationary starting point.
- (iv) The vehicle's direction of travel shall then be reversed for sound testing.
- (d) For the acceleration test, accelerate the vehicle from a standing position with the reference point of the vehicle at the selected stationary point, obtained by using subsection (5)(c) of this section, as rapidly as possible by establishing wide open throttle. The acceleration shall continue until the entire vehicle has vacated the end zone.
- (e) Wheel slip which affects maximum sound level must be avoided. The modified procedure uses a standard SAE J366 test site.
- (6) Requests for copies of ANSI documents should be addressed to: Acoustical Society of America, American Institute of Physics, 335 East 45th Street, New York, N.Y., 10017. Requests for copies of SAE documents should be addressed to: Society of Automotive Engineers, Attn: Dept. 001, 400 Commonwealth Drive, Warrendale, PA. 15096.

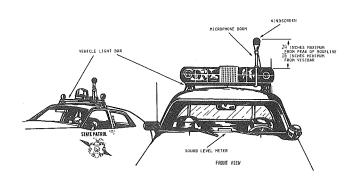
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-085, filed 5/12/82.]

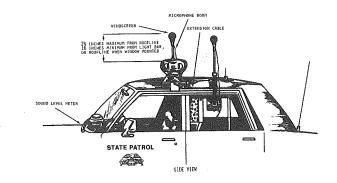
WAC 204-56-99001 Microphone height for measurement of in-use vehicles on the highway.

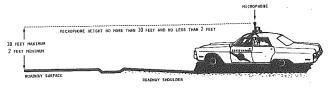


[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99001, filed 5/12/82.]

### WAC 204-56-99002 Patrol mounted microphone location.



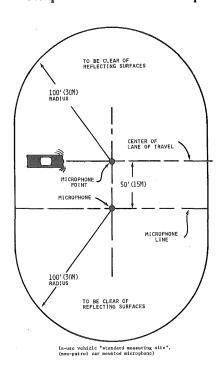




PATROL CAR MOUNTED HICROPHON

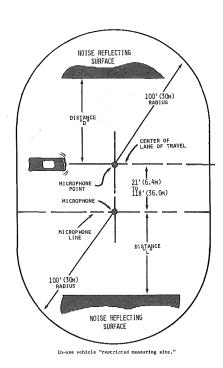
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99002, filed 5/12/82.]

WAC 204-56-99003 In-use vehicle-Standard measuring site-Nonpatrol car mounted microphone.



[Statutory Authority: RCW 70.107.070 and 46.37.005. 82–11–040 (Order 82–05–02), § 204–56–99003, filed 5/12/82.]

WAC 204-56-99004 In-use vehicle--Restricted measuring site.



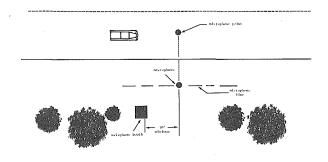
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99004, filed 5/12/82.]

WAC 204-56-99005 Correction factors for measuring distance.

Distance from Microphone to Center of Lane of Travel									Sound Level Correction Factor, dB	
21 feet	(6.4m)	or	more	but	less	than	29	feet	(8.8m)	+ 7
29 feet	(8.8m)	or	more	but	less	than	32	feet	(9.8m)	+ 6
32 feet	(9.8m)	or	more	but	less	than	35	feet	(10.7m)	+ 5
35 feet	(10.7m)	or	more	but	less	than	39	feet	(11.9m)	+ 3
39 feet	(11.9m)	or	more	but	less	than	43	feet	(13.1m)	+ 2
43 feet	(13.lm)	or	more	but	less	than	48	feet	(14.6m)	+ 1
48 feet	(14.6m)	or	more	but	less	than	58	feet	(17.1m)	0
58 feet	(17.1m)	or	more	but	less	than	70	feet	(21,3m)	- 1
70 feet	(21,3m)	or	more	but	less	than	83	feet	(25.3m)	- 2
83 feet	(25.3m)	or	more	but	less	than	99	feet	(30,2m)	- 3
99 feet	(30.2m)	or	more	but	less	than	118	3 feet	(36 m)	- 4

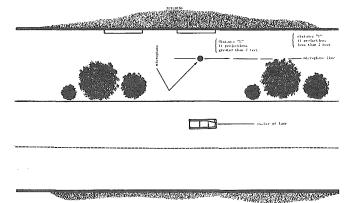
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99005, filed 5/12/82.]

WAC 204-56-99006 Narrow objects near the microphone.



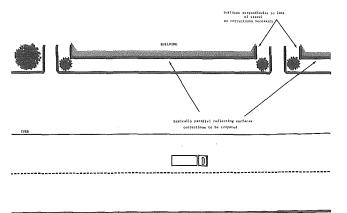
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82–11–040 (Order 82–05–02), § 204–56–99006, filed 5/12/82.]

WAC 204-56-99007 Basically parallel surfaces with projections.



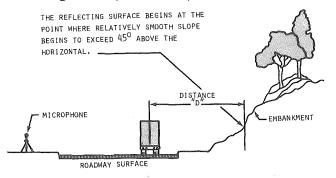
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99007, filed 5/12/82.]

## WAC 204-56-99008 Basically parallel surfaces with perpendicular surfaces.



[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02),  $\S$  204-56-99008, filed 5/12/82.]

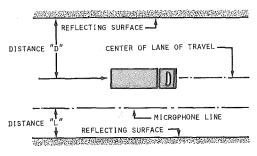
## WAC 204-56-99009 Measurement of distance to reflecting surface (embankment).



Measurement of distance to reflecting surface (embankment).

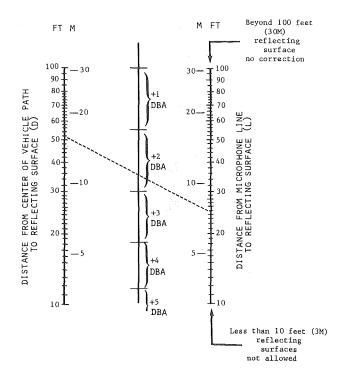
[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99009, filed 5/12/82.]

#### WAC 204-56-99010 Distances "D" and "L."



[Statutory Authority: RCW 70.107.070 and 46.37.005, 82–11–040 (Order 82–05–02), § 204–56–99010, filed 5/12/82.]

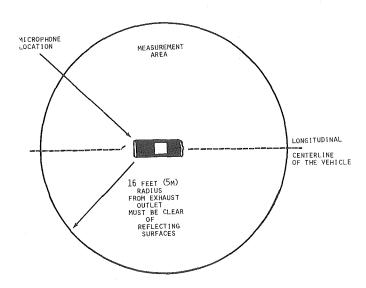
### WAC 204-56-99011 Nomogram for reflecting surfaces.



Correction nomogram for reflecting surfaces "D" and "L".

[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99011, filed 5/12/82.]

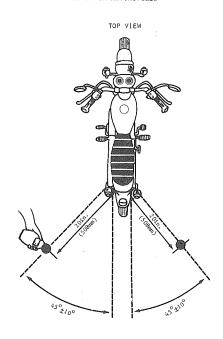
## WAC 204-56-99012 Exhaust system measurement site.

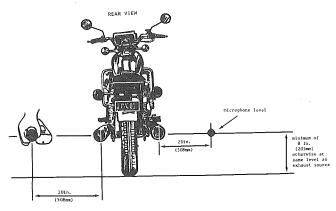


[Statutory Authority: RCW 70.107.070 and 46.37.005. 82-11-040 (Order 82-05-02), § 204-56-99012, filed 5/12/82.]

WAC 204-56-99013 Microphone locations for exhaust system measurements.

MICROPHONE PLACEMENT FOR MOTORCYCLES

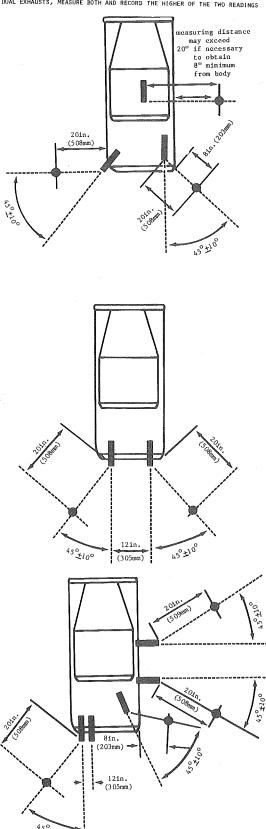




FOR DUAL EXHAUSTS, MEASURE BOTH AND RECORD THE HIGHER OF THE TWO READINGS.

NOTE:
DO NOT ALLOW THE EXHAUST TO IMPINGE ON THE MICROPHONE. USE THE WIND SCREEN TO PROTECT THE MICROPHONE.

MICROPHONE PLACEMENT FOR AUTOMOBILES AND LIGHT TRUCKS (2000) NOTE:
DO NOT ALLOW THE EXHAUST TO IMPINGE
ON THE MICROPHONE, USE THE WIND
SCREEN TO PROTECT THE MICROPHONE. FOR DUAL EXHAUSTS, MEASURE BOTH AND RECORD THE HIGHER OF THE TWO READINGS



[Statutory Authority: RCW 70.107.070 and 46.37.005. 82–11–040 (Order 82–05–02),  $\S$  204–56–99013, filed 5/12/82.]

### Chapter 204-60 WAC

### STANDARDS AND SPECIFICATIONS FOR ADDITIONAL LAMPS AND FLAGS FOR USE ON SNOW REMOVAL AND HIGHWAY MAINTENANCE EQUIPMENT

WAC

204-60-010 Promulgation.

204-60-020 Clearance lamps, side marker lamps and reflectors.

204-60-030 Standards for lights.

WAC 204-60-010 Promulgation. By authority vested in the state commission on equipment in RCW 46.37.005 and 46.37.300, the following standards and specifications applicable to head lamps, clearance lamps, identification and other lamps on snow-removal and highway maintenance equipment, in lieu of the lamps otherwise required on motor vehicles, are hereby adopted.

[Order 7605, § 204-60-010, filed 2/24/76. Formerly Regulation 630 (part), Appendix to Title 204 WAC.]

WAC 204-60-020 Clearance lamps, side marker lamps and reflectors. Clearance lamps, side marker lamps and reflectors shall be installed and maintained in accordance with chapter 46.37 RCW on all equipment.

[Order 7605, 204-60-020, filed 2/24/76. Formerly Regulation 630 (part), Appendix to Title 204 WAC.]

WAC 204-60-030 Standards for lights. (1) Headlamps may be positioned sufficiently high to clear operating equipment. Auxiliary headlamps may be used if necessary.

(2) Additional operating lamps may be located on the top of the cab or at other locations to illuminate plow-

ing, abrasive spreading or other equipment.

(3) Red lights on highway equipment: No flashing red warning signal except those required by RCW 46.37-.150, shall be displayed or used on any highway equipment.

(4) Amber lamps on highway equipment: Amber colored lamps required on the following equipment shall comply with the specifications set forth in paragraph (6):

(a) Power shovels or other similar highway maintenance equipment shall be equipped with a flashing amber lamp and red flag on an extension designating the maximum danger limit created by the swing of the cab while operating along the traffic lane.

(b) A flashing amber lamp shall be used on all other equipment which creates a potential hazard to traffic in order to serve as a warning to the traveling public. This equipment includes those vehicles and trailers for con-

struction, maintenance and operations.

(c) A flashing amber lamp shall be used on the knuckle of all manlift-type platform trucks with articulating boom, where the knuckle is capable of being rotated beyond the side of the truck.

(d) The minimum light intensity of the lamp filament shall not be less than twenty-one candle power.

(e) The lamp or lamps shall be mounted on the cab or other high point of the equipment so as to be visible at

all times, at least from the front and rear of the vehicle, from a distance of five hundred feet in normal sunlight.

- (6) The flashing amber lamp for use on highway construction, maintenance and operations equipment shall be illuminated only:
- (a) When the equipment is actually involved in construction, maintenance and/or operations.
- (b) When the equipment is traveling to or from the job site and is unable to maintain, either because of equipment limitations, or other reasons, at least one—half posted or prevailing speed.

[Order 7605, § 204-60-030, filed 2/24/76. Formerly Regulation 630 (part), Appendix to Title 204 WAC.]

## Chapter 204-62 WAC DECELERATION WARNING LIGHT

WAC
204-62-010
204-62-020
204-62-030
204-62-040
204-62-050
Requirements and test methods for a deceleration alert system, Type I.
Requirements and test methods for a deceleration alert system, Type II.

WAC 204-62-010 Promulgation. By authority of RCW 46.37.005 and 46.37.320, the state commission on equipment hereby adopts the following regulation pertaining to the installation and mounting of approved deceleration warning lights.

[Order 7609, § 204-62-010, filed 10/4/76.]

WAC 204-62-020 Definition. A deceleration warning light, excluding stop lamps, is a device that indicates to a following driver the deceleration of the vehicle ahead.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–62–020, filed 8/21/81; Order 7609, § 204–62–020, filed 10/4/76.]

WAC 204-62-030 Installation requirements. Deceleration warning lights shall be installed as follows:

- (1) Only one such system may be mounted on a motor vehicle, trailer, semitrailer, truck tractor, or pole trailer.
- (2) Provision shall be made for rigid or shock—absorbing mounting. The axis of the light beam shall be parallel to the roadway and the longitudinal axis of the vehicle. The lamp shall be mounted on the centerline of the rear exterior of the vehicle or with the optical center of the lamp not more than 15 inches from the centerline.
- (3) The deceleration warning light system shall be mounted as nearly as practicable at the same height as the existing stop lamps on the vehicle.
- (4) Visibility of the deceleration lamps to the rear shall not be obstructed by any part of the vehicle or load thereon.

[Order 7609, § 204–62–030, filed 10/4/76.]

WAC 204-62-040 Standards. Deceleration warning lamp systems may meet the specifications set forth in

either WAC 204-62-050 or 204-62-060, but shall meet at least one of those specifications.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–62–040, filed 8/21/81.]

WAC 204-62-050 Requirements and test methods for a deceleration alert system, Type I. (1) A deceleration alert lamp, Category I, is mounted on the rear of the vehicle and has three compartments. The center compartment emits a green light and is energized when the vehicle operator has the accelerator depressed. The two outer compartments emit an amber light and are energized when the operator releases the accelerator and prior to applying pressure to the foot brake pedal. When the amber lights are energized, the green light is deenergized. When pressure is applied to the foot brake pedal, the amber lights are deenergized and the vehicle's stop lamps operate in the normal manner.

- (2) The deceleration alert lamp is a three-compartment lamp and only one is allowed on the rear of the vehicle mounted as close as possible to the vertical centerline of the vehicle. Center to center (optical axis) distance between two adjacent compartments should not exceed six inches.
- (3) The following sections from SAE J575g standard shall apply: Section B, samples for test; Section C, lamp bulbs; Section D, laboratory facilities; Section E, vibration test; Section F, moisture test; Section G, dust test; Section H, corrosion test; and Section J, photometry.
- (a) Plastic material Any plastic material used in optical parts shall comply with the requirements set forth in SAE J576c.
- (b) Color test The color of the light from the center compartment shall be green and the color of the light from the two outer compartments shall be amber. See SAE Standard J578d for color chromaticity boundaries.
- (4) Photometric requirements All beam candle-power measurements shall be made with the H-V axis taken as paralleled to the longitudinal axis of the vehicle. The candlepower measurements for the center green compartment shall be made with the incandescent filament of the lamp at least ten feet from the photometric screen.

Beam candlepower measurements of the two amber compartments shall be made by either of the following methods:

- (a) The two compartments may be photometered together provided that a line from the optical axis (filament centers) of each compartment to the center of the photometer sensing device does not make an angle of more than 0.6° with the photometer (H-V) axis.
- (b) Each compartment may be photometered separately by aligning its axis with the photometer and adding the value at each test point.

Table 1 lists the design candlepower requirements for the two outer amber lights, and Table 2 lists the design candlepower requirements for the center green light.

Table 1 Table 2

		n Candlepower r Amber Light	Minimum Desig Requirements for	
Test	Points	Candlepower	Test Points	Candlepower
10 up	10L	25	10 up 10L	1
and	V	65	and V	1.5
10 dow	n 10R	25	10 down 10R	1
	20L	25	20L	1
	10L	65	10L	2
5 up	5L	85	5 up 5L	4
and	V	125	and V	4
5 down	5R	85	5 down 5R	4
	10 <b>R</b>	. 65	10R	2
	20R	25	20R	1
	20L	25	20L	2
	10L	75	10L	3
	5L	. 125	5L	5
	H-V	175	H–V	5
	5R	125	5R	5
	10R	75	10R	3
	20R	25	20R	2
Ma	ximum	450	Maximum	45

(5) Mounting. Deceleration lamps shall be mounted at a height of not more than 72 inches nor less than 15 inches.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–62–050, filed 8/21/81.]

WAC 204-62-060 Requirements and test methods for a deceleration alert system, Type II. (1) Operating requirements. Deceleration alert systems shall meet the following operating requirements:

- (a) Function. The system shall operate so as to indicate a component of deceleration of the vehicle on which it is installed by varying the flashing rate of a yellow lamp when the service brakes are applied.
- (b) Reduced nighttime brightness. The system shall incorporate an automatic means for reducing the intensity of the lamp during darkness. The system shall cause the voltage to the deceleration lamps to decrease to 5.0 V  $\pm$  10% at 0 g deceleration during darkness. The specified voltage shall be reached when the illumination on the sensor is not more than 5 lm/sq. ft., nor less than 0.5 lm/sq. ft.
- (2) Deceleration performance. The output voltage, duty cycle, and flash rate of the control unit as a temperature of  $24^{\circ} \pm 5.5^{\circ}$ C ( $75^{\circ} \pm 10^{\circ}$ F), when 12.8 V dc is applied to the input terminal, shall be as shown in Table I when the control sensor is placed on a tilt table and slightly vibrated as the table is slowly rotated through the angles representing the specified vehicle deceleration rates.

TABLE I.
Test Requirements for Deceleration Lamps

Deceleration (g)	Output (V)	Peak Relative Brightness	Flash Rate (Hz)	On Time (%)
0.0	7.0	1.0	1.0	50
0.1		1.0	1.5	48
0.2		1.0	2.3	46

TABLE I.
Test Requirements for Deceleration Lamps

Deceleration (g)	Output (V)	Peak Relative Brightness	Flash Rate (Hz)	On Time (%)
0.3		1.2	3.4	44
0.4		1.4	5.0	42
0.5		1.7	7.6	40

(a) Deceleration. The deceleration at which the unit switches from a lower to a higher flash rate shall be within  $\pm$  0.05 g of the rate specified in Table I. If the unit operates at more steps than the required minimum, the additional values for each column shall lie on the smooth curve connecting the indicated values within the specified tolerances. The values specified in Table II apply to ramp-type inertial sensors for which the downward angles correspond to the deceleration and a tolerance of 3.0° applies to the tilt angle.

TABLE II.
Test Requirements for Deceleration Sensors

	DEGREES			
Deceleration (g)	Forward Tilt Angle	Dip Correction	Corrected Tilt Angle	
0.0	0.0	0.0	0.0	
0.1	5.7	0.8	6.5	
0.2	11.3	1.6	12.9	
0.3	16.7	2.4	19.1	
0.4	21.8	3.2	25.0	
0.5	26.6	4.0	30.6	

- (b) Output voltage. The rms output voltage during the on portion of the flash cycle at the 1 HZ flash rate shall be within  $\pm$  5% of the specified value, measured at the lamp bulbs with daytime illumination on the automatic darkness sensor.
- (c) Relative brightness. With the brightness of the lamp or its bulbs taken as 1.0 when measured with the rms output voltage specified for 0 g deceleration, the relative brightness of the lamp or bulbs at the other decelerations shall be within  $\pm$  25% of the specified values after the fifth flash.
- (d) Flash rate and percent on time. The flash rate shall be within  $\pm$  15% of the specified value. The percent on time shall be within  $\pm$  10% of the specified value.
- (e) Correction for front end dip. Control sensors for vehicles with substantial front end dip upon braking, such as passenger vehicles and pickup trucks, shall have linear dip corrections varying from 4° at 0.5 g or more deceleration to 0° at 0 g.
- (3) Mechanical test requirements. Deceleration lamps shall comply with the following mechanical tests in SAE Standard J575g (tests for motor vehicle lighting devices and components): Corrosion, dust, moisture, vibration, and warpage (at a flashing rate of 1 Hz when a plastic lens or housing is used).

- (4) Temperature test requirements. The control system shall meet the following requirements at both 11 V and 15 V.
- (a) Low temperature test. The control system shall be placed in its normal operating position in a circulating air cabinet at  $-32^{\circ} \pm 3^{\circ}C$  ( $-25^{\circ} \pm 5^{\circ}F$ ) for 2 hours. At the end of that period and while still at that temperature, the unit shall meet the requirements in Table I at 0 g and 0.3 g.
- (b) High temperature test. The control system shall be placed in its normal operating position in a circulating air cabinet at  $74^{\circ} + 0^{\circ}$ ,  $-2.8^{\circ}$ C ( $165^{\circ} + 0^{\circ}$ ,  $-5^{\circ}$ F) for 2 hours. At the end of that period and while still at that temperature, the unit shall meet the requirements in Table I at 0 g and 0.3 g.
- (5) Durability test. The control system shall be operated continuously at a supply voltage of 12.8 V dc for 200 hours with no failure (except bulb replacement), after which it shall meet the requirements in Table I at 0 g and 0.3 g.
- (b) Photometric test requirements. The luminous intensity of a deceleration lamp with the bulbs operated at mean spherical candela shall meet the photometric requirements in Table III after the sample has been mechanically tested in the order shown in subsection (3) of this section.

TABLE III.
Photometric Requirements for Deceleration Signal Lamps

Test Point	Coordinates	M	ax	Cd Mi	n
Vertical	Horizontal	Amber	Red	Amber	Red
	10L	70	35	25	12.
10U	V	200	100	60	30
	10R	70	35	25	12.
	20L	40	20	15	7.
	10L	200	100	60	30
	5L	600	300	200	100
5U	V	800	400	350	175
	5R	600	300	200	100
	10R	200	100	60	30
	20R	40	20	15	7.
	20L	40	20	15	7.
	10L	200	100	60	30
	5L	800	400	350	175
Н	V	1,300	650	600	300
	5R	800	400	350	175
	10R	200	100	60	30
	20R	40	20	15	7.
	20L	40	20	15	7.
	10L	200	200	60	30
	5L	600	300	200	100
5D	V	800	400	350	175
	5R	600	300	200	100
	10R	200	100	60	30
	20R	40	20	15	7.
	10L	70	35	25	12.
10D	V	200	100	60	30
	10R	70	35	25	12.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–62–060, filed 8/21/81.]

## Chapter 204-64 WAC QUARTZ HALOGEN HEADLAMPS

WAC
204-64-010
204-64-020
204-64-040
204-64-080
204-64-080
204-64-100
Application for certificate of approval.
Installation, aiming, and adjustment.
Application of these regulations.

WAC 204-64-010 Purpose. By authority of RCW 46.37.005 and 46.37.320, the commission on equipment hereby adopts the following regulation pertaining to the approval, installation, adjustment, and aiming of quartz halogen headlamps.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 78–11–051 (Order 7740–C), § 204–64–010, filed 10/23/78.]

WAC 204-64-020 Definition. Quartz halogen headlamps are those that meet the standards established by the United Nations' agreement concerning the adoption of approval and reciprocal recognition of approval for motor vehicle equipment and parts agreed upon at Geneva on March 20, 1958, as amended and adopted by the Canadian Standards Association (CSA Standard D106.2).

[Statutory Authority: RCW 46.37.005 and 46.37.320. 78–11–051 (Order 7740–C), § 204–64–020, filed 10/23/78.]

WAC 204-64-040 Approval procedure. The commission on equipment shall issue a certificate of approval to manufacturers of quartz halogen headlamps for sale of such lighting devices in this state when such manufacturer submits proper certification that such device conforms with Canadian Standards Association Standard D106.2. All applications shall include a copy of the CSA approval and shall be submitted to the commission on equipment for approval. The address is Secretary, Commission on Equipment, General Administration Building AX-12, Olympia, Washington 98504.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 78–11–051 (Order 7740–C), § 204–64–040, filed 10/23/78.]

WAC 204-64-060 Application for certificate of approval. The application for the certificate of approval for quartz halogen headlamps shall include the following information as shown in the sample:

Date:	_
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Secretary
Commission on Equipment
General Administration Building AX-12
Olympia, Washington 98504

The attached CSA Approval, File No. \_\_\_\_ dated \_\_\_ certifies that the following headlamp complies with the United Nations Geneva Agreement in 1958 for "Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle

Equipment and Parts" and Canadian Standards Association Standard No. D106.2, "Vehicle Headlight Conforming to ECE Regulations," in accordance with RCW 46.37.320.

Manufacturer:
U.S. Designation:
Canadian Designation:
Manufacturer's Designation:
ECE Approval Markings on Front Lens:
Sealed Beam Replacement Size: Standard Vehicle Equipment on: Manufacturer's Representative in the state of Washington:
Applicant:

[Statutory Authority: RCW 46.37.005 and 46.37.320. 78–11–051 (Order 7740–C), § 204–64–060, filed 10/23/78.]

WAC 204-64-080 Installation, aiming, and adjustment. Prior to approval for sale and use of quartz halogen headlamps, manufacturers shall submit for approval to the commission on equipment a copy of an instructional guide, pamphlet, brochure, or other written information which will be provided to the consumer by the manufacturer. The instructional guide shall describe in easily readable text, diagrams, or pictures the proper procedures for the installation, aiming, and adjustment of quartz halogen headlights. The manufacturer shall provide the approved instructional guide at no charge in each individual package of quartz halogen headlamps. Headlamps shall comply with the requirements of, limitations of, and shall be installed and maintained in accordance with chapter 46.37 RCW and chapter 204-72 WAC.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), § 204-64-080, filed 12/5/80. Statutory Authority: RCW 46.37.005 and 46.37.320. 78-11-051 (Order 7740-C), § 204-64-080, filed 10/23/78.]

WAC 204-64-100 Application of these regulations. These regulations are intended to apply only to Washington state headlamp standards. These regulations do not in any way affect the application of laws, regulations, or standards pertaining to headlight standards promulgated by any other state or by the federal government.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 78-11-051 (Order 7740-C), § 204-64-100, filed 10/23/78.]

## Chapter 204–65 WAC DISPLAY OF ELECTRONIC MESSAGES

WAC 204-65-010 Authority.

204-65-020Purpose.204-65-030Electronic messages.204-65-040Eye level brake light.204-65-050Traffic control vehicles.204-65-060Taxicabs and public transportation vehicles.

WAC 204-65-010 Authority. This chapter is promulgated pursuant to RCW 46.37.005.

[Statutory Authority: RCW 46.37.005. 89–12–018 (Order 89–02–ESR), § 204–65–010, filed 5/30/89; 87–04–065 (Order 86–2), § 204–65–010, filed 2/4/87.]

WAC 204-65-020 Purpose. The purpose of this section is to limit the confusion that lighted signs on vehicles can create by preventing the display of digital or lighted signs that convey personal or commercial messages, from motor vehicles, while on the public roadways of this state.

[Statutory Authority: RCW 46.37.005. 89-12-018 (Order 89-02-ESR), § 204-65-020, filed 5/30/89; 87-04-065 (Order 86-2), § 204-65-020, filed 2/4/87.]

WAC 204-65-030 Electronic messages. Signs or message boards, affixed to or displayed from motor vehicles on any public right of way may not be lighted or electrically powered except as noted below.

[Statutory Authority: RCW 46.37.005. 89–12–018 (Order 89–02–ESR), § 204–65–030, filed 5/30/89; 87–04–065 (Order 86–2), § 204–65–030, filed 2/4/87.]

WAC 204-65-040 Eye level brake light. Eye level brake lights shall meet existing requirements of the Code of Federal Regulations, Federal Motor Vehicle Safety Standard 49, Section 571.108. Such lights shall not be combined with any type of letter, number, sign, symbol or combination thereof. No function other than red reflex reflectors shall be combined in eye level brake lights.

[Statutory Authority: RCW 46.37.005. 89-12-018 (Order 89-02-ESR), § 204-65-040, filed 5/30/89; 87-04-065 (Order 86-2), § 204-65-040, filed 2/4/87.]

WAC 204-65-050 Traffic control vehicles. Vehicles that are publicly or privately owned and used in conjunction with officially sanctioned or sponsored motor vehicle traffic control or movement may display lighted, digital or electrically powered signs to assist in the efficient control of traffic movement on public roadways. Such signs shall be designed, worded and directed so as to limit misinterpretation and confusion by the motoring public.

[Statutory Authority: RCW 46.37.005. 89-12-018 (Order 89-02-ESR), § 204-65-050, filed 5/30/89; 87-04-065 (Order 86-2), § 204-65-050, filed 2/4/87.]

WAC 204-65-060 Taxicabs and public transportation vehicles. Electronic signing that is normally utilized to identify taxicabs and the destinations of mass transportation vehicles are permitted. Such signs shall not contain any commercial or personal message and shall be located, designed, and so displayed as to clearly differentiate them from other required motor vehicle lights. [Statutory Authority: RCW 46.37.005. 89–12–018 (Order 89–02–ESR), § 204–65–060, filed 5/30/89; 87–04–065 (Order 86–2), § 204–65–060, filed 2/4/87.]

# Chapter 204-70 WAC STANDARDS FOR VEHICLE CONNECTING DEVICES AND TOWING METHODS

WAC 204-70-010 Promulgation. 204-70-020 Purpose. 204-70-030 Scope. 204-70-040 Definitions. 204-70-050 Light service devices and systems. 204-70-060 Hitches. 204-70-070 Safety chains and attaching means required. 204-70-080 Identification. 204-70-090 Identification, installation, maintenance, and compliance. 204-70-100 Certification and/or testing. 204-70-120 Effective date. 204-70-99001 Table 1. 204-70-99002 Figure 1—Typical coupler and ball test fixture arrangement. 204-70-99003 Table 2-Hitch test forces. 204-70-99004 Table 3. 204-70-99005 Figure 3—Typical double safety chain installation.

WAC 204-70-010 Promulgation. By authority of RCW 46.37.005 and 46.37.320, the state commission on equipment hereby adopt the following regulations pertaining to vehicle connecting devices and towing methods.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80–03–069 (Order 80–02–2–70),  $\S$  204–70–010, filed 2/28/80.]

WAC 204-70-020 Purpose. The purpose of this regulation is to provide this state with a uniform minimum requirement for motor vehicle connecting devices and towing methods. It is designed to increase highway safety by reducing towing and hitch-related accidents. This regulation is not intended to cover the fifth wheel type of connecting device or towing method. Pintle hook type devices shall also be excluded from this chapter, except that the safety chain requirements shall apply.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-020, filed 2/28/80.]

WAC 204-70-030 Scope. (1) The scope of this regulation is directed to the regulation of trailer hitches and towing devices, towing methods, testing methods, certification requirements, installation, compliance and other requirements as herein defined in these regulations.

(2) After the effective date of this regulation, no primary connecting system used for drawing a trailer or semitrailer having a gross vehicle weight of 10,000 pounds or less upon the public highways of this state shall be sold, offered for sale, or installed for service unless it is a type approved by the commission. The safety chain requirements of this chapter shall apply to all primary coupling systems designed for towing trailers and semitrailers having a gross vehicle weight of 10,000 pounds or less regardless of the date of installation of

such primary coupling system. Accordingly, the commission establishes this regulation relating to vehicle connecting arrangements used for drawing trailers by mechanical power on the public highways. This regulation is not for those arrangements used for drawing another vehicle by means of a tow truck, semitrailer with a fifth wheel type hitch, or wrecker unless coupled by ball and coupler.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-030, filed 2/28/80.]

- WAC 204-70-040 Definitions. (1) The term "commission" as hereinafter referred to within this regulation shall mean the state commission on equipment.
- (2) "Chain attaching means" means the bolt, hook, pin, hole, eye, clevis, bracket, bar, or any other device mounted on and used for anchoring or attaching safety chains to the towed or towing vehicle or hitch.
- (3) "Coupling" means that part of the primary connecting system normally mounted on the trailer, such as a socket, by which the connection is actually made and including the supporting attachment to the trailer frame.
- (4) "Family of hitches" means a series of hitches produced by a single manufacturer which have similar traits and characteristics in common with each other. Each regulated manufacturer shall determine which hitches may be appropriately included in a particular family, subject to review by the commission. The necessary criteria which all hitches included within a family must exhibit are as follows:
  - (a) Similarity of design,
  - (b) Similar materials of construction,
- (c) Similar means of attachment to the towing vehicle, and
- (d) Similar strength and performance of characteristics.
- (5) "Gross vehicle weight rating (GVWR)" means the value specified by the vehicle manufacturer as the loaded weight of a single vehicle.
- (6) "Hitch," defined for specific uses under (a) and (b) below, generally means that part of the primary connecting system normally mounted on the towing vehicle, including a ball-support platform and those components which are attached to the towing vehicle.
- (a) "Weight distributing hitch" means a mechanical device that connects the trailer to the towing vehicle, and by means of a leverage applied on both trailer and car structures or axles, when properly adjusted, distributes the imposed vertical load at the hitch and coupling connection between the structures of axles of towing vehicle and trailer. The towing vehicle thus loaded tends to retain a level position with respect to the road.
- (b) "Weight carrying hitch" means a mechanical and/or structural device that connects the trailer to the towing vehicle, and that does not employ features designed to redistribute the load imposed at the hitch and coupling connection. Weight carrying hitches may be designed for bolting or other attachment to the towing vehicle frame, unitized body, bumper structure, or to a combination of these or other points which meet the requirements of WAC 204-70-060(3) and Table 2.

- (7) "Maximum gross trailer weight (MGTW)" means the weight of the trailer plus the weight of all cargo, consumables, and equipment loaded on the trailer when in an actual underway towing condition.
- (8) "Maximum vertical load on hitch (tongue weight)" means the vertical downward static force exerted on the hitch by the coupling at the point of connection of coupling and hitch, with weight distribution features or devices, if any, deactivated. Tongue weight is measured at the trailer coupling, with the trailer on a level surface (detached from the hitch), and with trailer consumables and cargo in maximum loaded conditions.
- (9) "Primary connecting system" means the combination of devices and their attaching structures that are normally utilized to maintain the connection between towing vehicle and trailer during towing operations. This includes, but is not limited to, the ball-and-socket type of connection or draft means. Note: This does not include a safety chain, which is part of a secondary system normally utilized only upon failure of the primary connection, nor does it include weight distributing or sway control features or devices whose function is accessory to the maintenance of the towing vehicle-trailer connection.
- (10) "Safety chains" means flexible tension members connected from the front portion of the towed vehicle to the rear portion of the towing vehicle for the purpose of retaining connection between towed and towing vehicle in the event of failure of the connection provided by the primary connecting system. The term "safety chains" includes not only chains, cable, or wire ropes, or equivalent flexible member meeting the strength requirements of Table 3 and approved by the commission, but also any splice, clamp, socket, snap, eye, ring, thimble, pin, or other fastening device or forming method which is part of the assembly of any such flexible tension member.
- (11) "Responsible manufacturer" shall mean that person who manufactures a hitch or hitch component either for resale or for sale where it is not actually installed by the manufacturer.
- (12) "Responsible installer" shall mean a person who installs a pre-manufactured hitch where no custom fabricating is done.
- (13) "Custom installer" shall mean that person who custom fabricates a hitch which is installed at the place of fabrication.

Nothing in this section is intended to preclude hitch installers from engaging in the activities covered in definitions (11), (12), and (13) above in any combination.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80–03–069 (Order 80–02–2–70), § 204–70–040, filed 2/28/80.]

WAC 204-70-050 Light service devices and systems. These are for use with trailers not exceeding 10,000 pounds gross vehicle weight rating. This includes, but is not limited to, such types as the utility, boat, camping, travel and other trailers which are normally towed by the conventional passenger car, or similarly constructed vehicle or light-duty truck. This section is

[Title 204 WAC—p 44] (1990 Ed.)

intended basically for the ball-and-socket type of primary connecting system, but is not necessarily limited to this type alone.

- (1) Trailer classification
- (a) Class 1—Trailers, with a gross weight (trailer weight including load) not exceeding 2,000 pounds.
- (b) Class 2—Trailers, with a gross weight (trailer weight including load) over 2,000 pounds, but not exceeding 3,500 pounds.
- (c) Class 3—Trailers, with a gross weight (trailer weight including load) over 3,500 pounds, but not exceeding 5,000 pounds.
- (d) Class 4—Trailers, with a gross weight (trailer weight including load) over 5,000 pounds, but not exceeding 10,000 pounds.
  - (2) Couplings
- (a) Coupling classification. There shall be four major strength classifications, or designations of couplings. The designation shall be based on the maximum gross trailer weight (MGTW) the coupling is qualified to tow. The No. 1 couplings shall be used for towing Class 1 trailers; No. 2 couplings for Class 2 or smaller trailers; No. 3 couplings for Class 3 or smaller trailers; and No. 4 couplings for Class 4 or smaller trailers. This is not intended to limit the number or variety of couplings in a given class or designation.
- (b) Coupling ultimate strength. Each coupling and hitch ball, when subjected to static bench tests in a rigid, nonyielding test fixture, shall withstand the test loads specified in WAC 204–70–99001 Table 1 without incurring failure. For purposes of this regulation, failure occurs at the point at which the coupling or ball will accept no additional test load.
- (c) Coupling and hitch ball test procedure. A new coupling or ball shall be used for each mode of load application. Each type of test load is to be applied individually to one component at a time, utilizing a nonyielding test fixture similar in design to the typical test fixture illustrated in Figure 1. When testing a coupling, a hardened ball shall be used; when testing a ball, a hardened coupling shall be used.
- (d) Attachment of couplings. Each coupling is to be mounted to the trailer attaching member by bolting, welding or riveting in such manner that the towing loads are safely and adequately transferred to that member.
  - (e) Provisions for safety.
- (i) Each coupling, regardless of classification or designation, must be equipped with a manually operated mechanism so adapted as to prevent disengagement of the unit while in operation. In addition to this positive locking mechanism, the coupling shall be so designed that the trailer can be disconnected from the towing vehicle regardless of the angle of the trailer to the towing vehicle.
- (ii) Each hitch ball shall be equipped and installed with a lock washer or equivalent device, and each replacement hitch ball shall be marketed with a lock washer or equivalent device with instructions as to proper installation provided by the responsible manufacturer.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-050, filed 2/28/80.]

- WAC 204-70-060 Hitches. (1) Hitch rating. Hitches shall be rated by the maximum gross trailer weight (MGTW) and the maximum vertical load on hitch (tongue weight) each is qualified to tow.
- (2) Hitch strength requirements. Each hitch, when subjected to a static bench test, shall conform to the minimum strength requirements contained in Table 2.
- (3) Attachment of hitch. Each hitch shall be attached to the structural member or members of the towing vehicle in such a manner that the tension, compression, and transverse thrust loads shown in Table 2 are transferred to the towing vehicle without residual distortion or failure of either the attachment or the vehicle structure which would affect the safe towing of trailers as defined in Table 2.
- (4) Maximum vertical load on hitch (tongue weight). The weight load carried by the hitch at its connection with the trailer coupling shall not, when on a level surface, exceed the maximum tongue weight load recommended by the manufacturer for the hitch.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80–03–069 (Order 80–02–2–70), § 204–70–060, filed 2/28/80.]

- WAC 204-70-070 Safety chains and attaching means required. (1) Strength requirements. Each safety chain and each attaching means shall meet strength requirements as shown in WAC 204-70-99004, Table 3, and defined in WAC 204-70-040.
- (2) Installation and connections. The means of attachment of safety chains shall be located equally distant from and on opposite sides of the longitudinal centerline of the towing vehicle and of the trailer. Each means of attachment shall not be common with or utilize fasteners common with a ball or coupling. No welding operation shall be performed on a safety chain subsequent to its manufacture, including the direct welding of a safety chain link to the towed or towing vehicles. Safety chains shall be so connected that the slack for each length of chain between trailer and towing vehicle is the same and is not more than necessary to permit the proper turning of the vehicles. When passing forward to the towing vehicle, safety chains must be crossed in such a manner as to prevent the tongue from dropping to the ground and to maintain connection in the event of failure of the primary connecting system. See Figure 3. WAC 204-70-99005.
- (a) Every towed vehicle shall be coupled to the towing vehicle by means of two safety chains, cables, or wire ropes in addition to the regular drawbar, tongue, or other connection. Safety chains, cables, or equivalent devices may be attached to permanently installed hitch components if the components meet the strength requirements of WAC 204-70-99004, Table 3.
- (b) Safety chain connections shall not be made to the hitch ball or to a ball mount designed to be readily removable when not in use.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80–03–069 (Order 80–02–2–70), § 204–70–070, filed 2/28/80.]

- WAC 204-70-080 Identification. (1) Device and component marking. Each coupling and each hitch shall be legibly and permanently marked (so as to be visible to consumers and any regulatory authority viewing the coupling and hitch as installed on a vehicle) on at least one hitch component or related component marketed with the hitch, as shown below. When hitch components (except hitch balls and their hardware) are marketed separately, the following markings must also appear on at least one of the components in the package or marketing unit.
- (a) Manufacturer's or distributor's name, initials, trademark, trade name, or code symbol. (Code symbol shall mean one assigned and approved by appropriate regulatory authority.)
- (b) Model number, part number, or style; and, for couplings only, the class.
- (c) Maximum gross trailer weight (MGTW) to be drawn.
- (d) Maximum vertical load on hitch (tongue weight) to be imposed on the ball or other points of connection.
- (e) The symbol V-5. Note: Placement of the symbol V-5 on any coupling or any hitch indicates certification of compliance of the product on which the symbol is placed with all requirements contained in VESC Regulation V-5.
- (2) Hitch ball marking. Each hitch ball sold for use in primary connecting system shall be permanently and legibly marked to show both the spherical diameter of the ball; e.g., 1-7/8", 2", etc., and the maximum gross trailer weight (MGTW) which it is designed to draw.
- (3) Labelling. Each crate, box, or other container in which a coupling or hitch is packed shall be imprinted or labelled to display at least the same information required in WAC 204-70-080(1) for marking, except that the maximum gross trailer weight (MGTW) to be drawn must be shown for each coupling regardless of class. Further, the year, make, and model of each vehicle on which a hitch may be installed and meet the requirements of this regulation shall be shown but may be shown on an enclosed sheet, or sheets, separate from the imprintation, or labelling, or on hitch manufacturer's application tables which are kept available at the location where the device or system is sold, either for resale or for use. However, the provision contained in the preceding sentence shall not apply to hitches adaptable to a large number of vehicles and designated to be a universal type.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-080, filed 2/28/80.]

WAC 204-70-090 Identification, installation, maintenance, and compliance. (1) Marking and labelling. Each vehicle connecting device, method, or system shall be marked and labelled as required by WAC 204-70-080 and 204-70-100(2). The marking and labelling shall show the responsible manufacturer (see (3) of this section). A pressure sensitive label will be acceptable if of a weather-resistant type which cannot be removed without destroying or defacing it.

(2) Installation and maintenance.

- (a) Manufacturer, packager, seller. The responsible manufacturer or seller of a vehicle primary connecting device or system shall provide with the device, or with devices making up or used in the system, clear and complete consumer instructions for use, maintenance and repair; and, where the device or system is not actually installed by the dealer, installation instructions, in accordance with the requirements of this regulation, and proper instruction of the purchaser, or owner, in use and care.
- (b) Owner, lessor, lessee, borrower. Each owner or lessor shall keep his connecting devices, and systems in good condition, maintained, repaired, and rebuilt in accordance with manufacturer's instructions and recommendations. Each owner or lessor who leases or lends a connecting device or system, shall properly instruct the lessee, or recipient, in the safe and proper use and care for the device(s), or system. Each lessee or borrower shall use and maintain the device, method or system in accordance with the instructions of the lessor or lender. For the purposes of this regulation any person who rents a trailer shall be considered to be a lessor.
- (c) No person shall put into use or continue in use a device or system on which the marking required in WAC 204-70-090(1) has been removed, altered, obliterated, disfigured, or otherwise damaged so as to prevent identification of the device(s), method(s) or system(s).
- (3) Compliance with requirements. Each manufacturer shall be responsible for the performance ability of the device(s) or system which he manufactures for use by a prospective owner, lessee, or borrower. Where a manufacturer, packager, or seller assembles or packages (unites, collects, aggregates) for use by a prospective owner, lessee, or borrower a device or system from parts, subassemblies or assemblies made or assembled by others, such manufacturer, packager, or seller (person, firm, association or corporation) shall be deemed responsible for the performance of the device(s) or system which he assembles or packages. For the purpose of this section, each manufacturer, packager, or seller described in the preceding two sentences shall be known as the "responsible manufacturer."

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-090, filed 2/28/80.]

WAC 204-70-100 Certification and/or testing. (1) Each responsible manufacturer shall certify to the commission or to an equipment approval program or other agency designated by the commission that each of his devices or systems, when installed in accordance with his published instructions (including instructions of manufacturers of weight distributing hitches for use by local installers who fabricate the undercar attachments means for such hitches), complies with and meets the requirements of this regulation. Such certification, shall be corroborated by submission of a properly executed product and certification test report form containing test results and required certifications, accompanied by photographs of the test site and equipment and a concise description of the test methodology followed. This report shall be submitted on forms approved by the commission. To demonstrate compliance with this regulation, the necessary tests shall be conducted by or supervised by an approved certified laboratory or an approved certified testing organization, and the officer or employee of the approved certified testing organization who personally conducted or supervised the testing shall execute the appropriate certification statement contained in the product and certification test report.

(2) Registration. No vehicle connecting device or system shall be sold within the state of Washington unless the responsible manufacturer has registered his product with the commission, has furnished the commission one copy of instructions for installation (as applicable), use, maintenance and repair, and has stated the maximum towing capacity of his product in terms of the maximum gross trailer weight (MGTW) to be drawn, as measured in accordance with the provisions of WAC 204-70-050 and 204-70-060. There shall be imprinted on each copy of instructions provided with the device or otherwise furnished to the owner the following statement: "This product complies with Regulation V-5." The responsible manufacturer of light service Class 1 connecting devices or systems for trailers not exceeding 2,000 pounds gross weight who produces not more than five such devices or systems in one calendar year must produce a product which complies with all applicable requirements of this regulation, except the registration requirements of this subsection.

(3) In lieu of the registration required in WAC 204-70-100(2), vehicle connecting devices or systems shall be considered to be registered if they appear as an approved device in the American Association of Motor Vehicle Administrators' "Approved Vehicle Devices

Handbook": *Provided*, *however*, That such testing conducted for the approval found the device to be in full conformance with VESC Regulation V-5.

(4) Custom installer conditional exemption from certification, testing and registration. Hitch installers are required to insure that hitches (as defined in WAC 204-70-040(6)) manufactured and installed by them meet the requirements of this regulation, except that such hitches are conditionally exempt from the certification, testing and registration provisions of WAC 204-70-100 (1), (2), and (3). To qualify for this exemption, hitches must be manufactured and installed by the same installer. Hitches so exempted may not be marked with the symbol V-5, but must meet all other identification provisions of WAC 204-70-080, and, in addition, must be permanently marked or labelled with the legend, "installer manufactured," in a manner approved by the commission. The commission reserves the right, in its discretion, in the event of a failure or a suspected failure of a hitch, to require testing of a comparable hitch of the same family fabricated by the manufacturer of the suspected hitch to demonstrate compliance with the strength regulations of this chapter.

[Statutory Authority: RCW 46.37.005 and 46.37.320, 80-03-069 (Order 80-02-2-70), § 204-70-100, filed 2/28/80.]

WAC 204-70-120 Effective date. This chapter shall become effective on April 1, 1980 for components manufactured on or after that date. The effective date for all components sold in the state of Washington, regardless of the date of manufacture, shall be April 1, 1981.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80–03–069 (Order 80–02–2–70),  $\S$  204–70–120, filed 2/28/80.]

WAC 204-70-99001 Table 1.

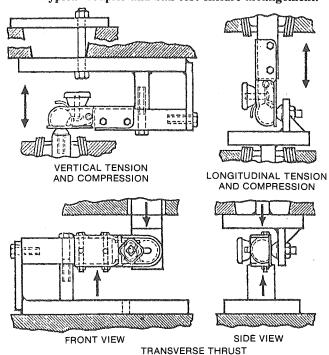
LIGHT SERVICE DEVICES
BREAKING STRENGTH FOR COUPLINGS AND BALLS

Frailer Classifi– cation	Trailer Couplings Designation	Minimum Ball Diameter-Inches (where Ball-type hitch is used)	Minimum Breaking Point Requirements	Pounds
Class 1 2,000 lbs.	No. 1	1 7/8	Longitudinal tension: Longitudinal	6,000
MGTW)			compression:	6,000
,			Transverse thrust:	2,000
			Vertical tension: Vertical compres—	2,500
			sion:	2,500
Class 2 2,001 thru 5,500 lbs.	No. 2	2	Longitudinal tension: Longitudinal	10,500
MGTW)			compression:	10,500
,			Transverse thrust:	3,000
			Vertical tension: Vertical compres—	4,500
			sion:	4,500

Trailer Classifi— cation	Trailer Couplings Designation	Minimum Ball Diameter-Inches (where Ball-type hitch is used)	Minimum Breaking Point Requirements	Pounds
Class 3 (3,501 thru 5,000 lbs.	No. 3	2	Longitudinal tension: Longitudinal	15,000
MGTW)			compression:	15,000
			Transverse thrust:	4,000
			Vertical tension Vertical compres— sion:	7,000 7,000
Class 4 5,001 thru 10,000 lbs.	No. 4	Ball & bolt shall be of such size and strength as to	Longitudinal tension: Longitudinal	MGTW x 3
MGTW)		conform to the	compression:	MGTW x 3
		minimum breaking	Transverse thrust:	MGTW x 1
	•	strength require— ments of the mating	Vertical tension: Vertical	MGTW x 1.3
		coupling required for the specific load of Class 4 trailer	compression:	MGTW x 1.4

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-99001, filed 2/28/80.]

WAC 204-70-99002 Figure 1--Typical coupler and ball test fixture arrangement.



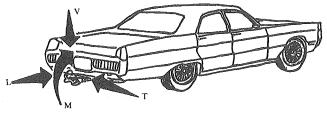
NOTE: TEST FIXTURE BARS TO BE SOLID AND FIT SNUGLY INSIDE OF HOUSING CHANNELS

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-99002, filed 2/28/80.]

#### WAC 204-70-99003 Table 2--Hitch test forces. (1) Table 2. HITCH TEST FORCES\*

TEP WEIGHT CARRYING HITCH			WEIGHT DISTRIBUTING HITCH	
Force	Direction	Force	Direction	
V=.47R+480 L=.47R+480	Downward Compressive	V=.045R+1650 M=51,000	Downward See Figure 2	
L=.23R+1530 V=.15R	Tensile Downward	L=.067R+2070 V=.15R	Tensile Downward	
L=.23R+1530 V=.15R	Compressive Downward	L=.067R+2070 V=.15R	Compressive Downward	
d T=.20R+500	Leftward	T=.20R+500	Leftward	
e T=.20R+500	Rightward	T=.20R+500	Rightward	
f Not Applicable	Not Applicable	M=93.2X+21000 V=.15R	See Figure 2 Downward	

- Vertical Force (lbs.)
  Longitudinal Force (lbs.)
  Transverse Force (lbs.)
  Spring Bar Moment (inch-lbs.)
  Hitch Rating in terms of MGTW (lbs.) (Maximum Gross Trailer Height)
  Hitch Rating for Maximum Vertical Load on Hitch (lbs.) (Tongue Height)
  Leveling Force Couple
- - (2) Figure 2



- (3) Footnotes to Table 2 and Figure 2.
- (a) When a hitch is to be tested:
- (i) Assemble the hitch in its normal configuration as recommended by the hitch manufacturer.
- (ii) Attach the hitch to a nonvielding restraining fixture. The hitch-to-fixture attaching means must be the same as the normal hitch-to-car attaching means recommended by the hitch manufacturer.
- (iii) The points of hitch-to-fixture attachment must be located in the same positions as the hitch-to-car attachment point locations recommended by the hitch manufacturer.
- (iv) Attach a ball to the ball support platform in the manner recommended by the hitch manufacturer.
- (b) Hitch test force applications. With the hitch attached to the test fixture as specified in footnote (a), apply the forces designated in Table 2, in any sequence, as follows:
- (i) Apply the specified downward vertical force concurrently with the specified compressive longitudinal force or spring bar moment.
- (ii) Apply the specified tensile longitudinal force concurrently with the specified downward vertical force.
- (iii) Apply the specified compressive longitudinal force concurrently with the specified downward vertical.
  - (iv) Apply the specified leftward transverse force.
  - (v) Apply the specified rightward transverse force.
- (vi) For hitches with weight distributing capability, apply the specified spring bar, or leveling moment, (leveling force couple) concurrently with the specified downward vertical force.

All forces in steps (i) through (iii) are to be applied along an axis which intersects the center of the ball. All forces are to be applied with an onset rate of not more than 150 pounds per second, and maintained at the maximum specified force level for at least five seconds.

(c) Each hitch, when tested as specified above, shall be capable of withstanding the forces applied in accordance with footnote (b) without causing permanent deformation of the ball platform, such that the final position of the ball axis shall not depart more than five degrees from its original, nominally vertical position.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-99003, filed 2/28/80.]

### WAC 204-70-99004 Table 3. (1) Table 3.

### LIGHT SERVICE DEVICES—MINIMUM STRENGTHS OF SAFETY CHAINS AND ATTACHING MEANS\*

	Minimum Longitudinal Load, Tension, Pounds (See WAC 204-70-99005, Figure 3)		
Trailer		Each of Two Chain	
Classification	Each Safety Chain	Attaching Means	
Class 1	2,000	2,000	
Class 2	3,500	3,500	
Class 3	5,000	5,000	
Class 4**	MGTW	MGTW	

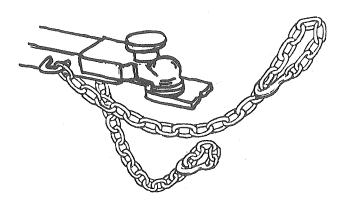
\* Load shown shall be applied in the same manner as would prevail if the trailer were being towed by the safety chain in a straight ahead direction.

Safety chain and attaching points and hardware shall withstand load shown without breaking.

\*\* MGTW means the maximum gross trailer weight, pounds, which is to be towed.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-99004, filed 2/28/80.]

#### WAC 204-70-99005 Figure 3—Typical double safety chain installation.



[Statutory Authority: RCW 46.37.005 and 46.37.320. 80-03-069 (Order 80-02-2-70), § 204-70-99005, filed 2/28/80.]

### Chapter 204-72 WAC STANDARDS FOR MOUNTING, ADJUSTING, AND AIMING OF LAMPS

WAC 204-72-010 Promulgation.

204-72-020	Purpose.
20472030	Mounting requirements, general.
204-72-040	Mounting requirements, specific.
204-72-050	Adjusting and aiming requirements, general.
204-72-060	Adjusting and aiming requirements, specific.

WAC 204-72-010 Promulgation. By authority of RCW 46.37.005, 46.37.310, and 46.37.320, the state commission on equipment hereby adopts the following rule pertaining to the mounting, adjusting, and aiming of lamps used upon motor vehicles.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), § 204-72-010, filed 12/5/80.]

WAC 204-72-020 Purpose. The purpose of this rule is to reduce the occurrence of motor vehicle accidents caused by insufficient or improper lighting.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), § 204-72-020, filed 12/5/80.]

- WAC 204-72-030 Mounting requirements, general. (1) Installation and maintenance. Lighting equipment shall be securely mounted on a rigid part of the vehicle to prevent noticeable vibration of the beam and shall be maintained with the proper aim when the vehicle is stationary and in motion. No lighting device shall be mounted so any portion on the vehicle, load, or vehicle equipment interferes with the distribution of light or decreases its intensity within the photometric test angles unless an additional device is installed so the combination of the two meets these requirements. Mounting heights shall be measured from the center of the lamp or reflector to the level surface upon which the vehicle stands when it is without load.
- (2) Mounting of aftermarket devices. Aftermarket lamps, with orientation markings such as "top" shall be mounted in accordance with the markings. Sealed and semisealed optical units shall be installed with the lettering on the lens face right side up. Front and rear reflex reflectors shall be securely mounted on a rigid part of the vehicle with the plane of the lens perpendicular to the roadway and parallel to the rear axle. Side reflex reflectors shall be mounted with the lens face perpendicular to the roadway and parallel to the rear wheels.
- (3) Mounting of original equipment devices. Original equipment lamps and reflex reflectors designed for a particular make of vehicle and installed on another vehicle shall be mounted at the same angle as on the vehicle for which they were designed. They need not be mounted at the same height or lateral spacing as on the original vehicle but must comply with the appropriate height and location limitations in this chapter and chapter 46.37 RCW.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), § 204-72-030, filed 12/5/80.]

### WAC 204-72-040 Mounting requirements, specific. (1) Clearance, sidemarker, and identification lamps.

(a) Clearance lamps, sidemarker lamps, and combination clearance and sidemarker lamps shall be mounted as specified in FMVSS 108, except for combination clearance and sidemarker lamps on pole trailers which

shall be mounted as required by RCW 46.37.090 (5)(c). On vehicles manufactured prior to May 1, 1980, clearance lamps need not be visible at the inboard angles, and clearance and sidemarker lamps need not comply with the mounting height requirements of FMVSS 108.

- (b) Identification lamps shall be mounted as specified in FMVSS 108, except where the cab of a vehicle is not more than 42 inches wide at the front roof line a single identification lamp shall be deemed to comply with the requirements for front identification lamps.
- (c) Specialized lamps. Specialized combination lamps designed to be mounted with the base at angles other than 0, 45, or 90 degrees from the longitudinal axis of the vehicle shall be installed in accordance with the manufacturer's instructions.
- (2) Cornering lamps. Cornering lamps shall be mounted on the front of the vehicle near the side or the side near the front and not lower than 12 inches nor higher than 30 inches.
- (3) Deceleration lamps. Deceleration lamps shall be mounted on the rear of the vehicle on or adjacent to the centerline of the vehicle at a height not lower than 20 inches and not higher than 72 inches.
- (4) Fog lamps. A fog lamp is a lighting device mounted to provide illumination forward of the vehicle under conditions of rain, snow, dust, or fog. Fog lamps shall be mounted at a height of not less than 12 inches nor more than 30 inches, and so the inner edge of the lens retaining ring is no closer than 4 inches to the optical center of the front turn signal lamp. The lamp may be used at the driver's discretion with either low or high beam headlamps. Fog lamps shall not be used alone in lieu of headlamps.
- (5) Headlamps. Headlamps shall be mounted as specified in FMVSS 108 and as follows:
- (a) Spacing. Headlamp units installed after November 15, 1975, shall not be closer to the centerline of the vehicle than 12 inches measured from the center of the lens, except on motorcycles and motorized bicycles, and shall be spaced as far apart as practicable. In cases of customized headlamp installation, headlamps shall not be mounted closer together than at the time or original manufacture of the vehicle body.
- (b) Height. Headlamps shall be mounted at a height of not less than 24 inches nor more than 54 inches.
- (c) Covers. No grille, plastic or glass covers, or any other obstruction which distorts the color or the distribution of light or substantially decreases its intensity shall be in front of the headlamp lens, except for headlamp concealment devices meeting the requirements of FMVSS 112.
- (6) Auxiliary passing lamps. A passing lamp is an auxiliary low beam lamp meeting the photometric requirements of SAE Standard J582a. Passing lamps shall be mounted not lower than 24 inches nor higher than 42 inches, and so the inner edge of the lens retaining ring is no closer than 4 inches to the optical center of the front turn signal lamp. The lamp may be used at the driver's discretion with either low or high beam headlamps. Passing lamps shall not be used alone in lieu of headlamps.

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- (7) Auxiliary driving lamps. A driving lamp is a lighting device mounted to provide illumination forward of the vehicle to supplement the upper beam of a standard headlamp system. Driving lamps shall be mounted on the front not lower than 16 inches nor higher than 42 inches. Driving lamps shall be wired so that the taillights are lighted whenever the driving lamps are lighted. If driving lamps are not wired to operate only with headlamp high beams, then a separate switch and indicator lamp shall be provided to operate the driving lamps. Driving lamps shall not be used alone in lieu of headlamps.
- (8) Side turn signal lamps. Side turn signal lamps shall be mounted on the side not lower than 20 inches nor higher than 72 inches. The lamps shall flash with the front and rear turn signal lamps on their respective sides of the vehicle. On vehicles equipped with sequential turn signal lamps, the side turn signal lamps shall flash with the front turn signal lamps. If the side turn signal lamps flash when the hazard warning switch is actuated, all such lamps shall flash with the rear turn signal lamps.
- (9) Supplemental signal lamps. Supplemental stop or turn signal lamps shall be single-faced, shall be actuated in the same manner and at the same time as the required stoplamps or turn signal lamps, and shall not be used in lieu of such lamps. Supplemental turn signal lamps and supplemental combination stop-and-turn signal lamps shall be mounted in pairs facing the rear with one lamp near each side of the vehicle, at the same height and equally spaced from the vehicle centerline. Supplemental stoplamps shall be mounted in pairs as specified above or with not more than two lamps on or adjacent to the centerline of the vehicle. Supplemental stop or turn signal lamps shall be mounted not lower than 35 inches nor higher than 55 inches. Standard stop or turn signal lamps not combined with tail lamps or reflex reflectors may be used respectively as supplemental lamps in which case they shall be mounted at any height not lower than 15 inches nor higher than 72 inches.
- (10) Turn signal lamps. Turn signal lamps shall be mounted and operated as follows:
- (a) Motor vehicles. Turn signal systems on motor vehicles shall consist of at least two single-faced or double-faced turn signal lamps on or near the front and at least two single-faced turn signal lamps on the rear. Double-faced turn lamps shall be mounted ahead of the center of the steering wheel or the center of the outside rearview mirror, whichever is rearmost. A truck-tractor or a truck chassis without body or load may be equipped with one double-faced turn signal lamp on each side in lieu of the four separate lamps otherwise required on a motor vehicle. Front and rear turn signal lamps on motorcycles shall be at least 9 inches apart, except that front turn signals on motorcycles manufactured after January 1, 1973, shall be at least 16 inches apart. Turn signal lamps on other vehicles shall be spaced as far apart as practical. The optical center of the front turn signal lamp shall be at least 4 inches from the inside diameter of the retaining ring of the lower beam headlamp unit, fog lamp unit, or passing lamp unit. Original

- equipment turn signals that emit two and one-half times the minimum candela requirements may be closer.
- (b) Towed vehicles. The rearmost vehicle in a combination of vehicles shall be equipped with at least two single-faced turn signal lamps on the rear. The signal system on a combination of vehicles towed by a motor vehicle equipped with double-faced front turn signal lamps may be connected so only the double-faced turn signal lamps on the towing vehicle and the signal lamps on the rear of the rearmost vehicle are operative.
- (c) Operation. Turn signal lamps visible to approaching or following drivers shall flash in unison, except that a turn signal consisting of two or more units mounted horizontally may flash in sequence from inboard to outboard. The lamps may be either extinguished simultaneously or lighted simultaneously. Turn signal lamps shall flash at a rate of 60 to 120 flashes per minute.
- (11) Warning lamps. Required front warning lamps other than school bus warning lamps shall be mounted so the entire projected area of the lens is visible from all eye heights of drivers of other vehicles at angles within 45 degrees left to 45 degrees right of the front of the vehicle. If the light within these required angles is blocked by the vehicle or any substantial object on it, an additional warning lamp shall be displayed within the obstructed angle. Warning lamps may be mounted at any height.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), \$ 204-72-040, filed 12/5/80.]

- WAC 204-72-050 Adjusting and aiming requirements, general. (1) Scope. This section applies to the aim of lighting equipment for which the aim is not specified in chapter 46.37 RCW.
- (2) General lighting equipment. Lighting equipment other than that specified in the following sections of this chapter shall be aimed so the center of the beam produced by the major filament is parallel to the road and projects directly to the front, side, or rear, depending on mounting location.
- (3) Aimable roadlighting devices. Roadlighting devices with aiming adjustment features shall, when equipped with aiming pads and aimed mechanically, be set at 0-0 with a mechanical aimer meeting SAE J602c, December 1974. Roadlighting devices visually aimed, shall be aimed as specified in the following sections of this rule on a vertical aiming screen at a distance of 25 feet from the front of the lens surface or with an optical aimer meeting SAE J600a, March 1965, with the aiming line on the screen adjusted to the level of the surface upon which the vehicle stands or with an optical aimer designed to aim headlamps complying with Canadian Standards Association Regulation D106.2. The lamps shall be aimed with only the driver in the vehicle, except that lamps on vehicles which normally carry a load should be aimed with the vehicle so loaded. Enforcement agencies that inspect vehicles may establish aiming tolerances to allow for variations in inspection procedures and in vehicle loading.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81-01-009 (Order 80-12-01), § 204-72-050, filed 12/5/80.]

WAC 204-72-060 Adjusting and aiming requirements, specific. (1) Cornering lamps. Cornering lamps with means for adjusting the aim shall be aimed horizontally so the center of the high intensity portion of the beam is within 40 to 50 degrees from the longitudinal axis of the vehicle toward the front. The vertical aim shall be with the center of the high intensity zone 10 to 14 inches below the level of the lamp center. Cornering lamps without aiming mechanisms shall be mounted in a fixed position on the vehicle in accordance with the manufacturer's instructions.

- (2) Driving lamps. Driving lamps shall be aimed with the center of the high intensity zone on a vertical line straight ahead of the lamp center and at the level of the lamp center.
- (3) Auxiliary passing lamps. Passing lamps shall be aimed with the top edge of the high intensity zone one inch above the level of the lamp center and with the left edge of the high intensity zone 5 inches to the left of a vertical line straight ahead of the lamp center.
- (4) Fog lamps. Fog lamps shall be aimed with the center of the high intensity zone on a vertical line straight ahead of the lamp center and with the top edge of the beam 4 inches below the level of the lamp center.
- (5) Motorcycle headlamps. Motorcycle headlamps shall be aimed on the upper beam as specified for Type 1 units in WAC 204–72–060(7) with the vehicle upright and the wheels facing straight ahead. As an alternative, motorcycle headlamps with a well-defined lower beam may be aimed on the lower beam as specified for Type 2 units in WAC 204–72–060(8) with the vehicle upright and the front wheel facing straight ahead.
- (6) Motor-driven cycle headlamps. Motor-driven cycle headlamps shall be aimed with the vehicle upright and the front wheels facing straight ahead in accordance with the following requirements:
- (a) Multiple beam headlamps. Multiple beam headlamps shall be aimed as specified for motorcycle headlamps.
- (b) Single beam headlamps. Single beam headlamps shall be aimed with the center of the high intensity zone on a vertical line straight ahead of the lamp center and with the top edge of the high intensity zone at the level of the lamp center.
- (7) Headlamps, Type 1. Type 1 sealed beam headlamp units (including those with any suffix letters and numbers such as 1A and 1C1) shall be aimed with the center of the high intensity zone on a vertical line straight ahead of the lamp center and at the level of the lamp center.
- (8) Headlamps, Type 2. Type 2 sealed beam headlamp units (including those with any suffix letter and numbers such as 2A1 and 2B) shall be aimed with the left edge of the high intensity zone on a vertical line straight ahead of the lamp center and with the top edge of the high intensity zone at the level of the lamp center.
- (9) Quartz halogen nonsealed beam headlamps. Headlamps meeting the requirements of the Canadian Standards Association shall be aimed as follows:
- (a) High beam. High beams shall be aimed as specified for headlamps, Type 1 in subsection (7) above.

(b) Low beam. Low beams shall be aimed so that the top edge of the low beam cut-off shall be three inches below the level of the lamp center, and the point at which the cut-off rises to the right shall be on a vertical line with the center of the lamp.

[Statutory Authority: RCW 46.37.005 and 46.37.320. 81–01–009 (Order 80–12–01),  $\S$  204–72–060, filed 12/5/80.]

# Chapter 204-74A WAC STANDARDS FOR SCHOOL BUS WARNING LAMPS

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204-74A-010 Authority.

204-74A-020 Purpose.

204-74A-030 Scope.

204-74A-040 Eight lamp warning system.

204-74A-050 Operation of lamps.

204-74A-060 Additional hazard strobe lamp.

WAC 204-74A-010 Authority. This rule is promulgated pursuant to RCW 46.37.005 and 46.37.290.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90–18–047, § 204–74A–010, filed 8/30/90, effective 9/30/90.]

WAC 204-74A-020 Purpose. The purpose of this rule is to establish the standards for warning lamps used on school buses that transport public school children. Additional rules pertaining to these lamps may be found in chapters 392-143 and 392-145 WAC.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90–18–047, § 204–74A–020, filed 8/30/90, effective 9/30/90.]

- WAC 204-74A-030 Scope. (1) The provisions of this chapter apply only to those school buses which are owned and operated by any public school district and all privately owned school buses operated under contract with a school district in the state and used for the transportation of public school children.
- (2) No privately owned school bus or private carrier bus shall be permitted to use this eight lamp warning system unless such use is in conformance with the rules and regulations set forth by the superintendent of public instruction in chapters 392–143 and 392–145 WAC.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90–18–047, § 204–74A–030, filed 8/30/90, effective 9/30/90.]

- WAC 204-74A-040 Eight lamp warning system. (1) The warning system shall consist of a total of eight lamps, two amber and two red on both the front and the rear of the bus. The lamps shall conform to SAE Standard J887a, J1318 or that standard in effect for such lamps at the time of the manufacture of such lamps.
- (2) The warning lamps shall be mounted as high as practicable on the bus body and as near the outside edges of the body as curvature permits. Metal shielding shall be provided to protect the lamps from the elements, and the background upon which the lamps are mounted shall be painted black. Such background shall extend a minimum of three inches outward from the lamps.

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(3) The amber lamps shall be mounted inboard of the red lamps. All lamps shall be mounted and aimed as specified in Federal Motor Vehicle Safety Standard 108 and SAE Standard J887a, and shall be clearly visible from a distance of at least five hundred feet in normal sunlight.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90–18–047, § 204–74A–040, filed 8/30/90, effective 9/30/90.]

WAC 204-74A-050 Operation of lamps. (1) Operation of the warning lamp system shall be in compliance with FMVSS 108. Activation of the warning lamp sequence shall begin only by means of a manually-operated switch. Such activation will cause the right and left amber lamps to flash alternately until the bus entrance door is opened or the stop arm is extended, at which time the amber lamps shall be automatically deactivated and the right and left red lamps shall be automatically activated. All lamps shall flash at a rate from sixty to one hundred twenty times per minute and shall reach full brilliance during each cycle.

(2) Lamp controls shall consist of:

(a) The master or sequencing switch which shall be in plain view and mounted within easy reach of the driver, and which shall activate the system sequencing and deactivate the system at any time during the sequence.

- (b) An override switch which shall automatically activate the red lamps whenever the stop arm is extended even though the master control switch is turned off, and which shall automatically deactivate the amber lamps if previously activated regardless of the then present normal state of sequencing or entrance door position. Such override switch shall be designed and installed so as to function with air, vacuum, electric, or manually operated stop arms. The stop arm shall be capable of being extended at any time, regardless of the position of the entrance door. The opening of the entrance door shall not cause the activation of the red lamps unless the master switch has been activated.
- (c) A minimum of two pilot lamps, one amber and one red, each of which shall flash when the like colored warning lamps are in operation. Pilot lamps which show the operation of each individual lamp are permissible. All pilot lamps shall be located so as to be clearly visible to the driver.
- (3) The warning lamp system shall be operated in accordance with the regulations set forth in chapter 392–145 WAC.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90-18-047, § 204-74A-050, filed 8/30/90, effective 9/30/90.]

WAC 204-74A-060 Additional hazard strobe lamp. (1) In addition to the eight lamp warning system, each bus may be equipped with a single additional hazard strobe lamp. Such lamps must meet the Class I requirements of SAE Standard J1318, 360 degree gaseous discharge warning lamp.

(2) A clear lens strobe lamp, less than eight inches in height, may be mounted on the centerline of the roof in the rear one—half of the bus. At no time shall the lamp be mounted any closer than six feet from the rear of the

bus measured from a vertical plane tangent to the rearmost point of the bus body.

- (3) The hazard strobe lamp will be activated by a switch independent of all other lamp switches. The hazard strobe lamp switch shall be plainly labeled and have a pilot lamp that shall indicate when the lamp is in operation.
- (4) The use of a hazard strobe lamp is permitted only when the bus is occupied with school children and:
- (a) It is in motion in inclement, sight obscuring conditions, including but not limited to rain, fog, snow, and smoke; and/or
- (b) When stopping, standing, or starting onto a highway in areas of geographic hazards such as hills, trees, buildings, etc.

The strobe lamp shall not be activated solely because of darkness.

[Statutory Authority: RCW 46.37.290 and 46.37.005. 90-18-047, § 204-74A-060, filed 8/30/90, effective 9/30/90.]

## Chapter 204-76 WAC STANDARDS FOR BRAKE SYSTEMS

204-76-010	Promulgation.
204-76-020	Scope,
204-76-030	Definitions.
20476040	Straight air brakes.
204-76-050	Air over hydraulic brakes.
204-76-060	Vacuum assisted hydraulic brakes.
204-76-070	Hydraulic brakes.
204-76-99001	Bolt type brake chamber data.
204-76-99002	Clamp type brake chamber data.
204-76-99003	Push rod force vs. travel.
204-76-99004	Relationship of push rod and slack adjuster angle to
	brake force.
204-76-99005	Air operated wedge brake adjustment.

WAC 204-76-010 Promulgation. By authority of RCW 46.37.005, the state commission on equipment hereby adopts the following rules relating to brake systems.

[Statutory Authority: RCW 46.37.005. 80–10–006 (Order 80–07–01), § 204–76–010, filed 7/25/80.]

WAC 204-76-020 Scope. These rules shall apply only to brake systems on vehicles with a gross vehicle weight rating of 10,000 pounds or more.

[Statutory Authority: RCW 46.37.005. 80–10–006 (Order 80–07–01), § 204–76–020, filed 7/25/80.]

WAC 204-76-030 Definitions. (1) "Air brake hose" means any flexible hose used as an integral part of a service or auxiliary (emergency stopping) air brake system, where flexibility in a connection is mandatory due to vehicle design and includes the service and emergency air hoses between vehicles in a combination of vehicles.

(2) "Air brake reservoir" means a storage container for compressed air.

(3) "Air compressor" means a device which compresses air used for actuation of the brakes and/or other components of the vehicle.

- (4) "Air gauge" means a gauge usually mounted on the instrument panel which indicates the air pressure in the air reservoir tanks, brake application pressure, or other air system pressures.
- (5) "Air governor" means a regulator which controls the supply of air pressure for the brake system, generally by controlling the air compressor cut—in and cut—out pressure within a preset range.
- (6) "Air over hydraulic brake system" means a hydraulic type brake system actuated by an air-powered master cylinder.
- (7) "Air pressure protection valve" means a unit through which air flow is prevented except when a preselected input pressure is exceeded.
- (8) "Brake" means an energy conversion mechanism used to retard, stop, or hold a vehicle.
- (9) "Brake assembly" means an assembly of brake parts, the components of which are determined according to the type or design of the brake system.
- (10) "Brake cam" means a cam mounted on the camshaft and located between the ends of the brakeshoes. When rotated by the brake camshaft, the cam expands the brakeshoes against the brakedrum.
- (11) "Brake camshaft" means the camshaft which is held to the vehicle axle housing or backing plate by bosses containing bronze or nylon bushings. Air pressure is converted into mechanical force by the brake chamber which is attached by a push rod to the slack adjuster. The slack adjuster multiplies the force by the lever principle and applies the force to the brakeshoes.
- (12) "Brake chamber or actuator" means a unit in which a diaphragm converts pressure to mechanical force for actuation of the brakes.
- (13) "Brake cylinder" means a unit in which a piston converts pressure to mechanical force for actuation of the brakes.
- (14) "Brake master cylinder" means the primary unit for displacing hydraulic fluid under pressure in the brake system.
- (15) "Brake pedal" means a foot-operated lever which, when actuated, causes the brake(s) to be applied.
- (16) "Brakeshoe" means a rigid half-moon shaped device with friction material affixed to the outer surface. The brakeshoes are generally mounted on a backing plate and are located inside the brakedrum. When expanded by the brake mechanism, the brakeshoes press the brake lining against the brakedrum, which creates friction to stop the rotation of the wheels, which in turn stops the vehicle.
- (17) "Brakeshoe anchor pin" means a pin which holds the brakeshoe in its proper place within the brakedrum and serves as a pivot for the brakeshoes. One end of each brakeshoe is generally connected to the backing plate or spider by anchor pins.
- (18) "Brake system" means a combination of one or more brakes and the related means of operation and control.
- (19) "Brake wheel cylinder" means a unit for converting hydraulic fluid pressure to mechanical force for actuation of a brake.

- (20) "Contamination" means any grease, oil, or brake fluid on the brake lining, pad friction surface, or braking surface of the brake drum or rotor.
- (21) "Diaphragm" means a rubber partition placed between the two halves of the brake chamber. When air pressure is introduced into the chamber on one side of the diaphragm, the pressure flexes the diaphragm and exerts force on the pushplate attached to the push rod. The pushplate is held up against the diaphragm by a light duty return spring.
- (22) "Disc brake" means a brake in which the friction forces act on the faces of a disc.
- (23) "Disc brake caliper assembly" means the nonrotational components of a disc brake, including its actuating mechanism for development of friction forces at the disc.
- (24) "Disc (rotor)" means the parallel-faced circular rotational member of a disc brake assembly acted upon by the friction material.
- (25) "Drum" means the cylindrical rotational member of a drum brake assembly acted upon by the friction material.
- (26) "Drum brake" means a brake in which the friction forces act on the cylindrical surfaces of the drum.
- (27) "Foot valve" means a brake application and release valve located on the floor or firewall of the motor vehicle between the throttle and the clutch. It may be either a treadle or a pedal and is operated by foot pressure applied by the driver to apply air pressure to the service brake system. The valve may be either attached to the treadle or may be remotely mounted under the floor and connected to the pedal by means of a rod. This valve generally applies air pressure to all braking axles on all vehicles in the combination.
- (28) "Hydraulic brake system" means a brake system in which brake operation and control utilizes hydraulic brake fluid.
- (29) "Pedal reserve" means the amount of total pedal travel left in reserve when the brake pedal is depressed to the "brake applied" position.
- (30) "Push rod" means the sliding rod projecting from a brake chamber and connected to the slack adjuster by which the force of compressed air in the brake chamber is transmitted to the brakeshoes through connecting linkage during a brake application.
- (31) "Safety valve" means a pressure release unit used to protect the air system against excessive pressure.
- (32) "Service brake system" means the primary brake system used for retarding and stopping a vehicle.
- (33) "Slack" means the sum of all clearances in the braking system and total system elasticity.
- (34) "Slack adjuster" means a lever attached to the brake camshaft and connected to the brake chamber push rod. The slack adjuster provides a means of adjusting the brakes to compensate for brake lining wear.
- (35) "Straight air brake system" means a mechanical type brake system actuated by air pressure in brake cylinders or brake chambers.
- (36) "Supply air" means the air that is under pressure in the air supply system of a vehicle. It consists of those

lines or tanks, except protected air tanks, which are under pressure when the system is fully charged and when all valves are in the normal position with the brakes unapplied.

- (37) "Vacuum assisted hydraulic brake system" means a hydraulic type brake system which utilizes vacuum to assist the driver's effort to apply the brakes.
- (38) "Vacuum brake reservoir" means a storage container for vacuum.
- (39) "Wedge brake" means a wheel brake which uses air or hydraulic pressure to force wedges instead of cams between the brakeshoes to apply the shoes against the brakedrums. In air applied wedge brake systems, the brake actuator axis is parallel to the axle and pushes directly on the wedge in this direction instead of being mounted at right angles to push a slack adjuster and rotate a cam as in the conventional type of air brake system.

[Statutory Authority: RCW 46.37.005. 83-21-080 (Order 83-10-01), § 204-76-030, filed 10/19/83; 80-10-006 (Order 80-07-01), § 204-76-030, filed 7/25/80.]

WAC 204-76-040 Straight air brakes. Straight air brake systems shall be subject to the following requirements and limitations:

(1) Supply system.

- (a) The air compressor for a straight air brake system shall cut in at not less than 85 pounds per square inch and shall cut out at not more than 130 pounds per square inch.
- (b) Air compressor buildup time shall not be more than two minutes to increase the air pressure from 60 pounds per square inch to 90 pounds per square inch. Engine speed shall not exceed 1500 RPM to meet this requirement.
  - (c) Air loss from the air system shall not exceed:
- (i) 3 pounds per square inch per minute for a single vehicle.
- (ii) 4 pounds per square inch per minute for a two vehicle combination.
- (iii) 5 pounds per square inch per minute for a three or more vehicle combination. Air losses shall be measured by the air gauge in the vehicle.
- (d) The air system shall contain no more than one quart of contaminants. Water and oil shall be considered contaminants.
  - (2) Brake assembly.
- (a) Adjustment of all brakes shall comply with the manufacturer's recommended specifications as set forth in WAC 204-76-99001, 204-76-99002, 204-76-99003, and 204-76-99004.
- (b) Brake system components shall meet all the requirements of RCW 46.37.360.
- (i) Brake hoses and their attachments shall meet the requirements of RCW 46.37.360 and shall comply with Part 393.45 of Title 49 CFR.
- (ii) Brake hose splices shall consist of only those unions specifically manufactured for that purpose and shall be properly installed.

- (iii) Brakedrums shall not be cracked or broken to the extent that such crack or break appears on the outside of the drum.
- (iv) Brake lining, pad friction surface, or braking surface of the brake drum or rotor shall not be contaminated with grease, oil, or brake fluid.

[Statutory Authority: RCW 46.37.005. 83–21–080 (Order 83–10–01), § 204–76–040, filed 10/19/83; 80–10–006 (Order 80–07–01), § 204–76–040, filed 7/25/80.]

WAC 204-76-050 Air over hydraulic brakes. Air over hydraulic brake systems shall be subject to the following requirements and limitations:

(1) Supply system.

- (a) The air compressor for an air over hydraulic brake system shall cut in at not less than 85 pounds per square inch and shall cut out at not more than 105 pounds per square inch.
- (b) Air compressor buildup time shall not be more than one minute to increase the air pressure from 60 pounds per square inch to 90 pounds per square inch. Engine speed shall not exceed 1500 RPM to meet this requirement.
  - (c) Air loss from the air system shall not exceed:
- (i) 3 pounds per square inch per minute for a single vehicle.
- (ii) 4 pounds per square inch per minute for a two vehicle combination.
- (iii) 5 pounds per square inch per minute for a three or more vehicle combination. Air losses shall be measured by the air gauge in the vehicle.
- (d) The air system shall contain no more than one quart of contaminants. Water and oil shall be considered contaminants.
- (e) Hydraulic fluid shall be maintained in excess of 50 percent of the brake master cylinder capacity.
  - (2) Brake assembly.
- (a) Adjustment of all brakes shall comply with the manufacturer's recommended specifications.
- (b) Brake system components shall meet all the requirements of RCW 46.37.360, and brake drums shall not be cracked or broken to the extent that such crack or break appears on the outside of the drum.
- (c) Brake lining, pad friction surface, or braking surface of the brake drum or rotor shall not be contaminated with grease, oil, or brake fluid.

[Statutory Authority: RCW 46.37.005. 83–21–080 (Order 83–10–01), § 204–76–050, filed 10/19/83; 80–10–006 (Order 80–07–01), § 204–76–050, filed 7/25/80.]

WAC 204-76-060 Vacuum assisted hydraulic brakes. Vacuum assisted hydraulic brake systems shall be subject to the following requirements and limitations:

(1) Supply system.

- (a) When equipped with a protected vacuum reservoir, there shall be no more than three inches drop in vacuum in one minute after turning off the engine.
- (b) When not equipped with a protected vacuum reservoir, a slight drop of the brake pedal should be felt after starting the engine when moderate pressure is applied to the pedal. If a slight drop of the pedal does

not occur, the vacuum system shall be deemed to be defective.

- (c) Hydraulic fluid shall be maintained in excess of 50 percent of the brake master cylinder capacity.
- (d) The hydraulic portion of the system shall pass the following test procedures.
- (i) With the engine off, a hard brake pedal application shall be made.
  - (ii) Pedal pressure shall be reduced but not released.
- (iii) Pedal pressure shall be gradually reapplied and pedal reserve shall be checked.
- (iv) No pedal reserve drop should occur. Any such drop in pedal reserve shall cause the system to be deemed defective.
  - (2) Brake assembly.
- (a) Adjustment of all brakes shall comply with the manufacturer's recommended specifications.
- (b) Brake system components shall meet all the requirements of RCW 46.37.360, and brake drums shall not be cracked or broken to the extent that such crack or break appears on the outside of the drum.
- (c) Brake lining, pad friction surface, or braking surface of the brake drum or rotor shall not be contaminated with grease, oil, or brake fluid.

Statutory Authority: RCW 46.37.005. 83–21–080 (Order 83–10–01), § 204–76–060, filed 10/19/83; 80–10–006 (Order 80–07–01), § 204–76–060, filed 7/25/80.]

WAC 204-76-070 Hydraulic brakes. Hydraulic brake systems shall be subject to the following requirements and limitations:

- (1) Supply system.
- (a) Hydraulic fluid shall be maintained in excess of 50 percent of the brake master cylinder capacity.
- (b) The hydraulic system shall pass the following test procedures.
- (i) With the engine off, a hard brake pedal application shall be made.
  - (ii) Pedal pressure shall be reduced but not released.
- (iii) Pedal pressure shall be gradually reapplied and pedal reserve shall be checked.
- (iv) No pedal reserve drop should occur. Any such drop in pedal reserve shall cause the system to be deemed defective.
  - (2) Brake assembly.
- (a) Adjustment of all brakes shall comply with the manufacturer's recommended specifications.
- (b) Brake system components shall meet all the requirements of RCW 46.37.360, and brake drums shall not be cracked or broken to the extent that such crack or break appears on the outside of the drum.
- (c) Brake lining, pad friction surface, or braking surface of the brake drum or rotor shall not be contaminated with grease, oil, or brake fluid.

Statutory Authority: RCW 46.37.005. 83-21-080 (Order 83-10-01), § 204-76-070, filed 10/19/83; 80-10-006 (Order 80-07-01), § 204-76-070, filed 7/25/80.]

WAC 204-76-99001 Bolt type brake chamber data.

BOLT TYPE BRAKE CHAMBER DATA				
Туре	Effective Area (Square Inches)	Outside Diameter	Maximum Stroke With Brakes Adjusted	Maximum Stroke At Which Brakes Shall Be Readjusted
A	6	5 1/4	Should be	1 1/4
В	9	6 3/16	as short as	1 3/8
C	12	6 15/16	possible	1 3/8
D	16	8 1/16	without	1 3/4
E	24	9 3/16	brakes	1 3/4
*F	30	9 7/8	dragging	2 '
G	36	11 ′	35 6	2 1/4

<sup>\*</sup>Most common types.

[Statutory Authority: RCW 46.37.005. 89–12–019 (Order 89–03–ESR), \$ 204–76–99001, filed 5/30/89; 88–01–018 (Order 87–04–ESR), \$ 204–76–99001, filed 12/8/87; 80–10–006 (Order 80–07–01), \$ 204–76–99001, filed 7/25/80.]

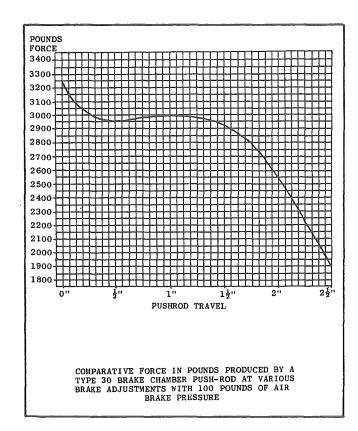
WAC 204-76-99002 Clamp type brake chamber data.

CLAMP TYPE BRAKE CHAMBER DATA				
Туре	Effective Area (Square Inches)	* Outside Diameter	Maximum Stroke With Brakes Adjusted	Maximum Stroke At Which Brakes Shall Be Readjusted
6	6	4 1/2	Should be	1 1/4
9	9	5 1/4	as short as	1 3/8
12	12	5 11/16	possible	1 3/8
16	16	6 3/8	without	1 3/4
20	20	6 25/32	brakes	1 3/4
24	24	7 7/32	dragging	1 3/4
**24LS	24	7 7/32		2
30	30	8 3/32		2
36	36	9 '		2.1/4

<sup>\*</sup> Dimensions listed do not include capscrew head projections for bolt clamp projections for clamp type brake chambers.

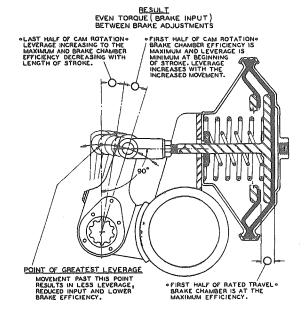
[Statutory Authority: RCW 46.37.005. 89–12–019 (Order 89–03–ESR), § 204–76–99002, filed 5/30/89; 88–01–018 (Order 87–04–ESR), § 204–76–99002, filed 12/8/87; 80–10–006 (Order 80–07–01), § 204–76–99002, filed 7/25/80.]

WAC 204-76-99003 Push rod force vs. travel.



[Statutory Authority: RCW 46.37.005. 80-10-006 (Order 80-07-01), § 204-76-99003, filed 7/25/80.]

WAC 204-76-99004 Relationship of push rod and slack adjuster angle to brake force.



[Statutory Authority: RCW 46.37.005. 80–10–006 (Order 80–07–01), § 204–76–99004, filed 7/25/80.]

WAC 204-76-99005 Air operated wedge brake adjustment. Wedge brake shoe travel shall not exceed 1/16 inch, nor shall the gap between the brake shoe lining and the brake drum exceed .06225 inch when the brake is released.

[Statutory Authority: RCW 46.37.005. 88-01-018 (Order 87-04-ESR), § 204-76-99005, filed 12/8/87.]

<sup>\*\*</sup> Long stroke.

## Chapter 204–78 WAC STANDARDS FOR MOTORCYCLE HEADLAMP MODULATOR

WAC

204-78-010 Promulgation. 204-78-020 Scope.

204–78–020 Scope. 204–78–030 Definitions.

204-78-040 Location of light modulator.

204-78-050 Parameter specifications for light modulators.

WAC 204-78-010 Promulgation. By authority of RCW 46.37.005 and 46.37.320, the state commission on equipment hereby adopts the following standards for motorcycle electronic headlamp modulators.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–78–010, filed 8/21/81.]

WAC 204-78-020 Scope. This standard shall apply only to electronic headlamp modulators for use on motorcycles and motor-driven cycles.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–78–020, filed 8/21/81.]

- WAC 204-78-030 Definitions. (1) "Electronic light modulation" means the periodic change in intensity of light, controlled by an all electric modulating device in the electrical circuit of the lighting system.
- (2) "Percent modulation" equals time-weighted power input with modulation to headlamp divided by time weighted power input without modulation to headlamp times one hundred.
- (3) "Electronic modulation" means using one hundred percent electronic circuitry instead of mechanical metallic switches.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–78–030, filed 8/21/81.]

- WAC 204-78-040 Location of light modulator. (1) Electrical. The modulator shall be inserted in the high beam headlight circuit on motorcycles between the high beam hand switch and high beam filament in the lamp.
- (2) Physical. The modulator shall be located on a frame bar or other substantial structure number, easily accessible to the operator for quick access to a by-pass switch. The device should be air cooled, if necessary.
- (3) Safety redundancy. The low beam headlight circuit should be unaltered and used as backup in case of modulator malfunction.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–78–040, filed 8/21/81.]

- WAC 204-78-050 Parameter specifications for light modulators. (1) The modulator shall be designed to continuously operate 60 watt headlamps.
- (2) The modulator shall have an electrical bypass switch rated at 6 amps, 12.8 volts.
- (3) Provisions shall be made to change modulation amplitude:

- (a) Daytime modulation depth should be at least 50% but not more than 80%.
  - (b) Nighttime not more than 20% modulation.
- (c) At no time while the light modulator is being used should the percent modulation become 100. This condition switches off the light intermittently and leads to premature filament failure.
- (4) All innerconnecting wire should be No. 16 AWG stranded copper.
- (5) The light modulator should be capable of operating over a voltage range of from 8 to 14 volts with no discernible change in its operating characteristics other than in headlamp brightness.
- (6) Potentially dangerous voltages, i.e., above 50 volts should not be used in the light modulator.
- (7) The modulator should operate within a frequency band of one cycle every two seconds to not more than four times per second.
- (8) The units should be sealed to prevent water intrusion.
- (9) The modulator should be designed to withstand intense vibration at 130°F.
- (10) No changes shall be made to render ineffective Motor Vehicle Safety Standard 108.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204-78-050, filed 8/21/81.]

## Chapter 204–80 WAC STANDARDS FOR HEADLAMP FLASHING SYSTEMS

WAC

204-80-010 Promulgation.

204-80-020 Scope.

204-80-030 Definitions.

204-80-040 Operating unit.

204-80-050 Indicator lamp. 204-80-060 Approval.

WAC 204-80-010 Promulgation. By authority of RCW 46.37.005, 46.37.280, and 46.37.310, the state patrol hereby adopts the following standards for head-lamp flashing systems.

[Statutory Authority: RCW 46.37.320. 88-15-054 (Order 88-06-ESR), § 204-80-010, filed 7/18/88. Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204-80-010, filed 8/21/81.]

WAC 204-80-020 Scope. This standard applies to headlamp flashing systems for authorized emergency vehicles owned and operated by law enforcement agencies and fire departments.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204-80-020, filed 8/21/81.]

WAC 204-80-030 Definitions. (1) "Headlamp flashing system" is an automatic means for controlling the high beams from the headlamps so that they can be alternately flashed in sequence on opposite sides of the front of the vehicle as a warning signal.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–80–030, filed 8/21/81.]

WAC 204-80-040 Operating unit. The operating unit shall have a circuit that alternately flashes only the high beams from the headlamps at a rate of 60 to 120 flashes per minute per side. The device shall be so designed that any failure to flash the lamps will not result in failure of the headlamp system to operate normally. The design of the device shall also incorporate an override feature which shall stop the flashing and provide full illumination from both high beam headlamps when the dimmer switch is in the high-beam mode.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–80–040, filed 8/21/81.]

WAC 204-80-050 Indicator lamp. An indicator lamp shall be included in the circuit to give a visible and unmistakable indication to the driver that the system is turned on.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81-18-008 (Order 81-08-02), § 204–80–050, filed 8/21/81.]

- WAC 204-80-060 Approval. To be considered approved equipment for use under the provisions of this section, all devices must meet the criteria established in RCW 46.37.320. In descending order of preference, these are:
- (1) Conformance to Federal Motor Vehicle Safety Standards, or, if none;
- (2) Conformance to current standards and specifications of the Society of Automotive Engineers, or, if none;
- (3) Certified for compliance by any recognized organization or agency such as, but not limited to, the American National Standards Institute, the Society of Automotive Engineers, or the American Association of Motor Vehicle Administrators.

[Statutory Authority: RCW 46.37.320. 88-15-054 (Order 88-06-ESR), § 204-80-060, filed 7/18/88.]

## Chapter 204–82A WAC MOTOR VEHICLE SUNSCREENING DEVICES

WAC
204-82A-010 Authority.
204-82A-020 Purpose.
204-82A-030 Scope.
204-82A-040 Definitions.

204-82A-050 Maximum levels of sunscreening and other

restrictions. 204-82A-060 Exceptions.

204-82A-070 Physical alteration of motor vehicle glazing material prohibited.

WAC 204-82A-010 Authority. This chapter is promulgated pursuant to RCW 46.37.005.

[Statutory Authority: RCW 47.37.005 [46.37.005]. 89-24-023, § 204-82A-010, filed 11/30/89, effective 12/31/89. Formerly WAC 204-82-010.]

WAC 204-82A-020 Purpose. The purpose of this rule is to establish limitations on the alteration of motor vehicle windows and the use of materials and devices that are applied to motor vehicle windows in a manner that reduces or interferes with the operator's vision. Such devices may be designed to reduce the effects of the sun, for decoration or amusement purposes or a combination, and are applied or installed on vehicles after initial sale. This rule does not apply to safety glazing material that is manufactured and installed in accordance with Federal Motor Vehicle Safety Standards (FMVSS 205 and 128) and American National Standards Institute (ANSI Z26.1.1977) nor tinting material applied to safety glazing after initial sale of the vehicle: Provided, That such material does not exceed the limitations established in RCW 46.37.430.

[Statutory Authority: RCW 46.37.005. 90–18–048, § 204–82A–020, filed 8/30/90, effective 9/30/90; 89–24–023, § 204–82A–020, filed 11/30/89, effective 12/31/89. Formerly WAC 204–82–020.]

WAC 204-82A-030 Scope. This regulation is applicable to passenger cars, multipurpose passenger vehicles, trucks and buses. The specific vehicle window areas encompassed by this rule are:

- (1) Windshields;
- (2) Windows to the immediate right and left of the driver, including wind wings;
  - (3) Rearmost windows;
- (4) Any other window used by the driver to safely operate the vehicle.

The provisions of this rule do not permit or prohibit the use and placement of federal, state, or local certificates or decals on any window as are required or prohibited by applicable laws or regulations. Any such decal or certificate must, however, be of such size and placement so that the ability of the driver to safely operate the vehicle is not impaired.

[Statutory Authority: RCW 47.37.005 [46.37.005]. 89-24-023, § 204-82A-030, filed 11/30/89, effective 12/31/89. Formerly WAC 204-82-030.]

- WAC 204-82A-040 Definitions. (1) Sunscreening devices are those products and/or materials applied or installed on motor vehicle windows for the purpose of reducing adverse effects of the sun. Such devices include, but are not limited to, semipermanently installed roll-up style shades and louver materials as well as temporarily applied articles such as towels, sheets, and blankets.
- (2) Recreational products are those toys, cartoon characters, stuffed animals, signs, and other vision—reducing articles and materials that may be applied to or suspended near motor vehicle windows for entertainment and/or amusement purposes.
- (3) Motor vehicle window glazing means glass material that meets the appropriate federal motor vehicle safety standard for use in motor vehicles.

[Statutory Authority: RCW 46.37.005. 90–18–048, \$ 204–82A–040, filed 8/30/90, effective 9/30/90; 89–24–023, \$ 204–82A–040, filed 11/30/89, effective 12/31/89. Formerly WAC 204–82–040.]

- WAC 204-82A-050 Maximum levels of sunscreening and other restrictions. (1) Sunscreening devices and/or recreational products may not be applied to or suspended between the driver and the windshield or the windows to the immediate right and left of the driver.
- (2) Sunscreening devices may be applied to other windows provided that such devices reduce the driver's area of vision uniformly and by no more than fifty percent, as measured on a horizontal plane.
- (3) If sunscreening devices are applied to the rear window, the vehicle must be equipped with outside rear view mirrors on both the left and the right.
- (4) Recreational products may be applied to windows, other than those referred to in subsection (1) of this section, only if they do not interfere, by their size or position, with the driver's ability to see other vehicles, persons, and objects.

[Statutory Authority: RCW 46.37.005. 90–18–048, § 204–82A–050, filed 8/30/90, effective 9/30/90; 89–24–023, § 204–82A–050, filed 11/30/89, effective 12/31/89. Formerly chapter 284–82 WAC.]

- WAC 204-82A-060 Exceptions. Due to the nature of use, function and operation of such vehicles, the following are exempted from the provisions of WAC 204-82A-050(2):
  - (1) Hearses.
  - (2) Ambulances.
- (3) Limousines and passenger buses used to transport persons for compensation.

Such vehicles shall have mirrors on both the right and left to provide vision at least two hundred feet to the rear. This section does not limit liability of the operators and/or owners of such vehicles involved in accidents resulting from reduced visibility.

[Statutory Authority: RCW 47.37.005 [46.37.005]. 89-24-023, § 204-82A-060, filed 11/30/89, effective 12/31/89.]

WAC 204-82A-070 Physical alteration of motor vehicle glazing material prohibited. Window glazing, manufactured and installed in accordance with federal motor vehicle safety standards shall not be etched or otherwise permanently altered if such glazing is installed in the windshield or any other window location of a motor vehicle passenger compartment.

[Statutory Authority: RCW 46.37.005. 90–18–048, § 204–82A–070, filed 8/30/90, effective 9/30/90.]

## Chapter 204-84 WAC STANDARDS FOR SIRENS

WAC	
204-84-010	Promulgation.
204-84-020	Scope.
204-84-030	Definitions.
204-84-040	Identification markings.
204-84-050	Instrumentation for testing.
204-84-060	Testing sites.
204-84-070	Microphone and personnel stations.
204-84-080	Siren test procedures.
204-84-090	Siren requirements.
204-84-100	Mounting requirements.
	= •

WAC 204-84-010 **Promulgation.** By authority of RCW 46.37.194 and 46.37.380, the state commission on equipment hereby adopts the following standards for sirens.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–010, filed 8/21/81.]

WAC 204-84-020 Scope. This chapter shall apply to sirens or other emergency vehicle sound warning devices required to be approved by RCW 46.37.194 and 46.37.380.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–020, filed 8/21/81.]

- WAC 204-84-030 Definitions. The following definitions shall apply wherever the terms are used in this article:
- (1) Siren. A "siren" is a device that produces the readily recognizable warning sound identified with emergency vehicles.
- (2) Electromechanical siren. An "electromechanical siren" is an audible warning device incorporating a stator and rotor driven by an electric motor.
- (3) Electronic siren. An "electronic siren" is an audible warning device incorporating an oscillator, amplifier, and speaker.
- (4) Mechanical siren. A "mechanical siren" is an audible warning device incorporating a stator and rotor driven by a mechanical connection to a moving part of the vehicle or engine.
- (5) Manual. "Manual" means a siren control that allows the operator to produce a wailing sound by alternately applying and releasing a momentary contact switch.
- (6) Wail. "Wail" means a siren control that, when manually activated, causes the device to produce a slow, continuous automatic cycling of increasing and decreasing frequencies.
- (7) Yelp. "Yelp" means a siren control that, when manually activated, causes the device to produce a rapid, continuous automatic cycling of increasing and decreasing frequencies.
- (8) "Hi-lo" means a siren control that, when manually activated, causes the device to produce a sound that automatically alternates between a fixed high and a fixed low frequency.
- (9) ANSI. "ANSI" means a standard adopted by the American National Standards Institute, Inc.
- (10) SAE. "SAE" means a standard or recommended practice of the Society of Automotive Engineers.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–030, filed 8/21/81.]

WAC 204-84-040 Identification markings. Sirens and components shall be marked as follows:

(1) Siren markings. Each siren shall be permanently marked with the manufacturer's or vendor's name, initials, or lettered trademark and the model designation in

letters and numerals at least 3mm (0.12 inches) in height.

- (2) Component markings. Each major component of an electronic siren, including the speaker, speaker driver, amplifier, and control panel (if separate from the amplifier), and each mechanical and electromechanical siren shall contain the required markings.
- (3) Driver markings. Speaker drivers for electronic sirens shall be marked to include the rms wattage in addition to those required in subsection (1) above.
- (4) Visibility of markings. Required siren markings, except those on the speaker driver and on speakers mounted within approved warning lamp housings, shall be clearly visible when the siren is installed on a vehicle. Amplifier markings may be on the front, top, sides, or bottom of the case provided they are in a location where they are legible to a person inspecting the component without using mirrors or removing the component when it is installed in a vehicle.
- (5) Permanence of markings. Required identification markings shall be molded, etched, embossed, stamped, engraved, or printed with epoxy paint or screening ink on the device or on a metal label of substantial thickness permanently affixed to the device by welding or metal fasteners. Speaker driver markings may be of indelible ink or nonepoxy paint when protected by coverings or they may be stamped on a metal plate attached by a screw.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–040, filed 8/21/81.]

WAC 204-84-050 Instrumentation for testing. Equipment used to test sirens shall meet the following requirements:

- (1) Sound measuring system. The sound measuring system shall meet the requirements of SAE J184, July 1972.
- (2) Octave band analyzer. The octave band analyzer shall meet the requirements of ANSI S1.11-1966.
- (3) Turntable. The turntable shall have a diameter of at least 300 mm (12 inches) and shall operate at a constant speed.
- (4) Test fixture. The fixture used for electromechanical and electronic siren tests shall be a rigid tripod 1.20 m  $\pm$  50 mm (4 feet  $\pm$  2 inches) in height, constructed of 13mm (0.5 inches) tubular material, mounted on a turntable, and fitted with a 300mm (12-inch) square platform.
- (5) Wattmeter. The wattmeter for measuring amplifier output shall be a Weston Model 310 Form 3, or equal, with a frequency range from dc to 1600 Hz, field ratings of 10 A and 62.5 V, a scale range of 250 W, and 1% accuracy.
- (6) Weather measuring instruments. In the open field, instruments for measuring wind direction and speed, relative humidity, and temperature shall be used and shall be mounted behind and at approximately the same height as the siren.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–050, filed 8/21/81.]

WAC 204-84-060 Testing sites. Sites for laboratory or field tests of sirens shall comply with the following requirements:

- (1) Laboratory tests. A laboratory test site shall consist of an anechoic chamber that meets the requirements of ANS S1.13-1971.
- (2) Open field tests. An open field test site for mechanical siren testing shall consist of a flat paved area at least 15m (49 feet) in diameter and free of large vertical sound-reflecting surfaces within 15m (49 feet) of the microphone and siren except for the test vehicle.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–060, filed 8/21/81.]

WAC 204-84-070 Microphone and personnel stations. Sound level meter microphones and technicians shall be stationed as follows:

- (1) Microphone location. The microphone used for testing an electromechanical or electronic siren shall be located  $3.00 \,\mathrm{mm} \pm 6 \,\mathrm{mm}$  (9.8 feet  $\pm$  0.24 inches) from the edge of the siren horn or projector, in line with the siren axis, and at the same height as the siren. The microphone used for testing a mechanical siren shall be located  $1.20 \,\mathrm{m} \pm 50 \,\mathrm{mm}$  (4 feet  $\pm$  2 inches) above the test surface and  $3.00 \,\mathrm{m} \pm 6 \,\mathrm{mm}$  (9.8 feet  $\pm$  0.24 inches) from the nearest part of the siren.
- (2) Microphone orientation. The microphone shall be oriented in relation to the sound source in accordance with the instrument manufacturer's instructions. If the instruction manual does not include adequate information, a specific recommendation shall be obtained from the manufacturer.
- (3) Personnel location. During laboratory tests, technicians and observers shall remain outside the anechoic chamber. During field tests, persons other than the operator of the vehicle shall be positioned no closer than 3m (10 feet) from the microphone or the siren.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–070, filed 8/21/81.]

WAC 204-84-080 Siren test procedures. The following procedures shall be followed while testing sirens for approval:

- (1) Mounting of test sample. Mechanical sirens shall be mounted on a vehicle for open field testing. An electromechanical siren or electronic siren speaker assembly shall be mounted on the test fixture secured to a turntable, as follows:
- (a) Height above turntable. The height of the electromechanical siren or electronic siren speaker measured from the lower edge of the siren stator housing or from the lower edge of the speaker bell to the face of the turntable shall be  $1.2m \pm 76mm$  (4 feet  $\pm 3$  inches).
- (b) Distance from surface of test area. Sirens shall be located as far from the walls of the anechoic chamber as practicable.

- (2) Power supply. The electrical power supply for testing electromechanical and electronic sirens shall be as follows:
- (a) Electromechanical sirens. The power supply for the electromechanical siren under test shall be a battery of the correct rated voltage with a cold cranking performance rating at -18°C (0°F) of from 550 A 50 620 A and a rated minimum reserve capacity at 26.7°C (80°F) of 140 min. The battery shall be at full charge and in good condition at the start of the test.
- (b) Electronic sirens. The power supply for electronic sirens shall be a well-filtered, voltage-regulated power source meeting at least the requirements of SAE J823c, January 1975. The voltage measured at the power supply output terminals with the siren operating shall be as follows:

Rated Voltage	Test Voltage For Sound Level	Test Voltage For Wattage
6	6.5	7.2
12	13.6	15.0

- (3) Sound level meter operation. The sound level meter shall be operated in accordance with the instrument manufacturer's instructions and as follows:
- (a) Sound level meter setting. The sound level meter shall be set for the A-weighted network and fast response.
- (b) Octave band analyzer. The octave band analyzer shall be operated to determine the octave band containing the maximum sound output in each siren mode.
- (c) Calibration check. An external calibration check shall be made before and after each period of use and at intervals not exceeding 2 hours when the sound measuring instrument is used for a period longer than 2 hours.
- (d) Ambient sound. Measurements shall be made only when the A-weighted ambient sound level, including wind effects and all other sound sources, is at least 10 dB(A) lower than the sound level of the siren.
- (4) Siren operation. The mounted siren shall be operated to determine the sound level output under each function at the established test points as follows:
- (a) Electromechanical and electronic siren speakers shall be rotated from at least 50 degrees left to 50 degrees right of the center of the siren axis at a constant speed during the siren operation.
- (b) Mechanical sirens shall be tested when mounted on a stationary vehicle and operated at speeds equivalent to a road speed of 30 to 80 km/hour (19–50 mph) to determine maximum noise output straight ahead of the vehicle (the vehicle may be mounted on rollers). The speed at which maximum sound level occurs shall be continued while the microphone is moved from 50 degrees left to 50 degrees right of the center of the vehicle axis.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–080, filed 8/21/81.]

- WAC 204-84-090 Siren requirements. Sirens shall be approved only when they comply with the following requirements:
- (1) Sound level output. Two classes of sirens, A and B, are established based on the recorded A-weighted sound level output of the test sample measured at 0 degrees on the siren or speaker axis, and at 10-degree increments from 50 degrees left to 50 degrees right of the center of the siren axis. The sound level output from the siren shall not be less than the value shown at each test point in Table I for the class of siren. The sound level of electronic sirens shall be measured after the siren is operated for one minute.

TABLE I.

Minimum A-Weighted Sound Level at 3.0m (10.0 feet)

Rotation Degree	Class A Siren	Class B Siren
0	120	115
10	119	114
20	118	113
30	117	112
40	115	110
50	113	108

- (2) Sound level determination. Sound level shall be recorded as the steady state level reached under manual control and the average level reached by the major peaks for wail and yelp. The lowest of the recorded sound levels of the manual, wail, or yelp function shall determine the siren class.
- (3) Frequency requirements. The maximum sound level in the axis of the siren shall occur in either the 1000 or 2000 Hz octave bands.
- (4) Electronic siren wattage. The wattage delivered to speakers of electronic sirens, shall not exceed the following requirements when tested at the voltages specified in WAC 204-84-080(2).
- (a) At the voltage specified for sound level tests, the wattage shall not exceed the rating of the driver after one minute and before three minutes of operation. The meter shall be inserted in the line between the amplifier and the speaker at the amplifier terminals.
- (b) At the voltage specified for wattage tests, the wattage shall not exceed 105% of the rating of the driver when measured after ten minutes of operation. Measurements shall be taken using the following sequence: Manual, wail, and yelp.
- (c) The wattage recorded for wail and yelp shall be the mathematical average of the high and low readings as the signal varies.
- (5) Siren functions. Electronic sirens approved by the department shall have a wail function and may also have manual, yelp, and hi—lo functions. No other function is permitted, except for voice communication, on sirens approved or reapproved after January 1, 1978. The sound produced by the siren shall meet the following requirements:
- (a) The wail function shall have an automatic undulating pitch rate of not less than ten nor more than

- 30.0 oscillations per minute. The wail sound level, measured on the center of the siren axis, shall drop no more than 10 dB(A) per cycle below the required values in Table I.
- (b) Electronic sirens approved or reapproved after January 1, 1978, which include a manual function shall incorporate a manual momentary contact switch which allows the vehicle operator to momentarily override the descending sound pattern of the automatic cycle when the control is set to "wail" and which can be used to produce a manually—cycled wail when the control is set at "manual."
- (c) The yelp function shall have an automatic undulating pitch rate of not less than 150 nor more than 250 oscillations per minute, except for sirens approved prior to July 1, 1975.
- (6) Siren control markings. Electronic siren controls shall be marked to indicate each siren function by the words "manual," "wail," "yelp," and "hi-lo," spelled out or abbreviated.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–090, filed 8/21/81.]

WAC 204-84-100 Mounting requirements. Unless the test report includes justification for alternate mounting methods, sirens and speakers installed on authorized emergency vehicles shall be mounted as follows:

- (1) Electromechanical and mechanical sirens.
- (a) Class A sirens. Class A electromechanical and mechanical sirens shall be mounted outside, behind the grille, or under the hood.
- (b) Class B sirens. Class B electromechanical and mechanical sirens shall be mounted outside or between the grille and the radiator.
  - (2) Electronic sirens.
- (a) Class A and Class B electronic sirens installed after January 1, 1976, shall be mounted outside or with the horn opening facing forward ahead of the radiator with a relative open path for the sound to project forward. The horn axis shall be parallel to the road and vehicle centerline.
- (b) Dual speakers. Dual speakers for electronic sirens shall be connected in phase and mounted so that the speaker axis is parallel to the vehicle centerline or angled outward not more than ten degrees to each side.

[Statutory Authority: RCW 46.37.005, 46.37.194, 46.37.280, 46.37.310, 46.37.320 and 46.37.380. 81–18–008 (Order 81–08–02), § 204–84–100, filed 8/21/81.]

## Chapter 204-88 WAC EMERGENCY VEHICLE LIGHTING

WAC

204-88-010 Promulgation.

204-88-020 Purpose.

204-88-030 Definitions.

204-88-050 Lighting for authorized emergency vehicles.

204-88-060 Lighting prohibited.

204-88-070 Approved lighting devices required.

WAC 204-88-010 Promulgation. By authority of RCW 46.37.190, 46.37.194 and 46.37.280 the state patrol hereby adopts the following rules relating to emergency vehicle lighting.

[Statutory Authority: RCW 46.37.190. 88–15–053 (Order 88–07–ESR), § 204–88–010, filed 7/18/88. Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–010, filed 7/29/82.]

WAC 204-88-020 Purpose. The purpose of this chapter is to provide the authority for law enforcement agencies and other emergency vehicle users to equip their vehicles with emergency lighting devices of a type and color necessary to perform their duties, to distinguish law enforcement vehicles from other emergency vehicles, and to provide a uniform meaning to the motoring public as to the message conveyed by such lighting.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–020, filed 7/29/82.]

WAC 204-88-030 Definitions. (1) "Authorized emergency vehicle" shall mean any vehicle of any fire department, police department, sheriff's office, coroner, prosecuting attorney, Washington state patrol, ambulance service public or private licensed by the department of social and health services or operated by any of the agencies named above, or any other vehicle authorized in writing by the state patrol.

(2) "Law enforcement vehicle" shall mean a publicly owned or leased vehicle operated by a law enforcement agency and which is used for the law enforcement functions of the agency.

(3) "Law enforcement agency" shall mean any municipal, port district or tribal police department, county police department or sheriff's office, the Washington state patrol, or any other state or federal agency which is publicly authorized to carry out law enforcement duties which include the authority to stop and detain motor vehicles on the public highways of this state.

- (4) "Flashing" lamps shall mean those lamps which emit a beam of light which is broken intermittently and regularly by use of an electronic or electric switch, or a lamp which emits a steady beam of light which is intermittently and regularly directed away from any viewer by means of a rotating or oscillating reflector or lamp assembly. Flashing lamps are not to be confused with modulated lamps which intermittently and regularly decrease the power to the lamp filament so as to dim the light output but do not cause a total break in the light beam.
- (5) "Emergency tow truck" shall mean a motor vehicle that has been issued a "tow truck permit" by the department of licensing and is especially designed and constructed principally for the purpose of recovery and/or towing of disabled, abandoned or damaged vehicles and not otherwise generally used in transporting goods or persons.

[Statutory Authority: RCW 46.37.005, 46.37.190, 46.37.194 and 46.37.280. 90-06-056, § 204-88-030, filed 3/5/90, effective 4/5/90. Statutory Authority: RCW 46.37.190. 88-15-053 (Order 88-07-

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ESR), § 204–88–030, filed 7/18/88. Statutory Authority: RCW 46-37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–030, filed 7/29/82.]

WAC 204-88-040 Lighting for authorized emergency vehicles. Every authorized emergency vehicle except law enforcement vehicles as defined in WAC 204-88-030(2) shall be equipped with at least one lamp capable of displaying a red light visible from a distance of five hundred feet in normal sunlight as required in RCW 46.37.190. A flashing lamp or lamps may be utilized to fulfill this requirement. Every authorized emergency vehicle may also be equipped with flashing amber lamps and/or flashing white lamps which may be used in conjunction with the red lamp(s).

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–040, filed 7/29/82.]

WAC 204-88-050 Lighting for law enforcement vehicles. Every law enforcement vehicle may be equipped with at least one lamp capable of displaying a red and/or blue light visible from a distance of five hundred feet in normal sunlight. A flashing lamp or lamps may be utilized to comply with this requirement. Every law enforcement vehicle may also be equipped with flashing amber lamps and/or flashing white lamps which may be used in conjunction with the red and/or blue lamp(s).

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–050, filed 7/29/82.]

WAC 204-88-060 Lighting prohibited. (1) Red emergency vehicle lights shall be prohibited on any vehicle other than an authorized emergency vehicle, a law enforcement vehicle or an emergency tow truck as defined in WAC 204-88-030 (1), (2) and (5), school buses and private carrier buses.

- (2) Blue lights shall be prohibited on any vehicle other than a law enforcement vehicle as defined in WAC 204-88-030(2).
- (3) Flashing white lights shall be prohibited on any vehicle other than authorized emergency vehicles, law enforcement vehicles and emergency tow trucks as defined in WAC 204-88-030 (1), (2) and (5), and school buses.

[Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82–16–047 (Order 82–07–01), § 204–88–060, filed 7/29/82.]

WAC 204-88-070 Approved lighting devices required. To be considered approved equipment for use under the provisions of this section, all devices must meet the criteria established in RCW 46.37.320. In descending order of preference, these are:

- (1) Conformance to Federal Motor Vehicle Safety Standards, or, if none,
- (2) Conformance to current standards and specifications of the Society of Automotive Engineers, or, if none,
- (3) Certified for compliance by any recognized organization or agency such as, but not limited to, the American National Standards Institute, the Society of Automotive Engineers, or the American Association of Motor Vehicle Administrators.

[Statutory Authority: RCW 46.37.190. 88-15-053 (Order 88-07-ESR), § 204-88-070, filed 7/18/88. Statutory Authority: RCW 46.37.420, 46.37.190, 46.37.194 and 46.37.280. 82-16-047 (Order 82-07-01), § 204-88-070, filed 7/29/82.]

#### Chapter 204-90 WAC

## MINIMUM REQUIREMENTS FOR CONSTRUCTION AND EQUIPMENT OF SPECIAL MOTOR VEHICLES

204-90-010	Purpose.
204-90-020	Scope.
204-90-030	Definitions.
204-90-040	Body requirements.
204-90-050	Glazing material/driver visibility.
204-90-060	Instrumentation.
204-90-070	Rear view mirror.
204-90-080	Accelerator control systems.
204-90-090	Brakes.
204-90-100	Fuel system.
204-90-110	Steering.
204-90-120	Suspension.
204-90-130	Exhaust system.
204-90-140	Electrical system requirements.

WAC 204-90-010 Purpose. To establish equipment requirements for the manufacture of special motor vehicles, or the assembly and construction of vehicles from new or used parts or kits, or the alteration of a motor vehicle which places it in the category of a special motor vehicle, for the purpose of reducing the danger of death and injury to the operators and passengers of the vehicles subject to this rule and to other users of the public highways. To establish minimum construction and performance requirements that are technically feasible and based upon sound engineering to achieve operational safety and to furnish state administrators with a guide for registration eligibility and in—use conformity for vehicles in this category.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-010, filed 5/13/83.]

WAC 204-90-020 Scope. This rule sets forth performance and equipment requirements necessary for the safe operation of special motor vehicles upon the public highways. This rule does not apply to vehicles modified for the handicapped.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-020, filed 5/13/83.]

WAC 204-90-030 Definitions. (1) Special motor vehicles: Passenger vehicles, multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating of 10,000 pounds or less equipped with two or more axles having at least two wheels per axle and which are intended for use on public highways. The term "special motor vehicle" shall include the following types:

(a) Type I: Vehicles that retain or are exact replicas of the original body configuration of a recognized vehicle manufacturer with changes made to any of the equipment items specified in this chapter. This type shall also include vehicles that have been modified from a recognized vehicle manufacturer's original body chassis

configuration but that retain the general appearance of the original body chassis.

- (b) Type II: All special motor vehicles which are custom built with fabricated parts or parts taken from existing vehicles excluding Type I vehicles.
- (c) Enclosed vehicle: Every Type I and Type II vehicle having a solid enclosed compartment for occupants as compared to an open or "soft top" convertible vehicle.
- (2) Recognized manufacturer: A person, firm, copartnership, association, or corporation who is or has engaged in the business of manufacturing motor vehicles intended for use on the public highways and offered for sale in interstate commerce.
- (3) FMVSS: Federal Motor Vehicle Safety Standard. Notwithstanding any other provisions of law, a vehicle or exact replica of a vehicle more than thirty years old owned and operated primarily as a collectors item and which has been restored to the original configuration and specifications of a recognized manufacturer is exempted from the requirements of this chapter.

[Statutory Authority: RCW 46.37.005. 88-01-017 (Order 87-03-ESR), § 204-90-030, filed 12/8/87; 83-11-028 (Order 83-05-01), § 204-90-030, filed 5/13/83.]

WAC 204-90-040 Body requirements. (1) Defroster and defogging devices: Every enclosed special motor vehicle shall be equipped with a device capable of defogging and defrosting the windshield area. Vehicles or exact replicas of vehicles manufactured prior to January, 1938, are exempt from this requirement.

- (2) Door latches: Every enclosed special motor vehicle equipped with side doors leading directly into a compartment that contains one or more seating accommodations shall be equipped with door latches which firmly and automatically secure the door when pushed closed and which allow each door to be opened both from the inside and outside.
- (3) Hoodlatches: A front opening hood shall be equipped with a primary and a secondary latching system to hold the hood in a closed position.
- (4) Enclosed passenger compartment: A special motor vehicle with an enclosed passenger compartment and powered by an internal combustion engine shall be constructed to prevent the entry of exhaust fumes into the passenger compartment.
- (5) Floor pan: A special motor vehicle shall be equipped with a floor pan under the entire passenger compartment capable of supporting the weight of the number of occupants that the vehicle is designed to carry.
- (6) Bumpers: A special motor vehicle shall be equipped with a bumper on both the front and rear of the vehicle with the exception of motor vehicles where the original or predominant body configuration, provided by a recognized manufacturer, did not include such bumper or bumpers in the design of the vehicle. Bumpers or exact replicas of bumpers for Type I vehicles meeting the original specifications of a recognized manufacturer shall satisfy the requirements of this section.

Bumpers, unless specifically exempted above, shall be at least 4.5 inches in vertical height, centered on the vehicle's centerline, and extend no less than the width of the respective wheel track distances. Bumpers shall be horizontal load bearing and attach to the vehicle frame to effectively transfer energy when impacted.

The maximum bumper heights will be determined by weight category of gross vehicle weight rating (GVWR) measured from a level surface to the highest point on the bottom of the bumper. For vehicles exempted from the bumper requirement for the reasons stated above, a maximum frame elevation measurement shall be made to the bottom of the frame rail. Maximum heights are as follows:

Front	Back
22 Inches	22 Inches
24 Inches	26 Inches
27 Inches	29 Inches
28 Inches	30 Inches
	22 Inches 24 Inches 27 Inches

- (7) Fenders: All wheels of a special motor vehicle shall be equipped with fenders designed to cover the entire tire tread width that comes in contact with the road surface. Coverage of the tire tread circumference shall be from at least 15° in front and to at least 75° to the rear of the vertical centerline at each wheel measured from the center of the wheel rotation. At no time shall the tire come in contact with the body, fender, chassis, or suspension of the vehicle.
- (8) Frame: A special motor vehicle shall be equipped with a frame. If an existing frame from a recognized manufacturer is not used and a special frame is fabricated, it shall be constructed of wall box or continuous section tubing, wall channel, or unitized construction capable of supporting the vehicle, its load, and the torque produced by the power source under all conditions of operation. Specially fabricated frames shall meet the Specialty Equipment Manufacturing Association "Recommended practice for chassis contraction of special motor vehicles."

[Statutory Authority: RCW 46.37.005. 83–11–028 (Order 83–05–01), § 204–90–040, filed 5/13/83.]

- WAC 204-90-050 Glazing material/driver visibility. (1) Windshields: A motor vehicle shall be equipped with a laminated safety glass windshield that complies with the provisions of FMVSS 205. The windshield shall be framed and in such a position that it affords continuous horizontal frontal protection to the driver and front seat occupants. The minimum vertical height of the unobstructed windshield glass shall be six inches, or as originally equipped by a recognized manufacturer.
- (2) Side and rear glass: These items are not required, but if they are present, they must comply with the provisions of the current FMVSS 205.
- (3) Driver visibility: The vehicle shall be provided with a windshield and side windows or openings which allow the driver a minimum outward horizontal vision capability, 90° each side of a vertical plane passing through the fore and aft centerline of the vehicle. This range of vision may be interrupted by window framing not exceeding four inches in width at each side location.

A special motor vehicle shall have no obstruction forward of the windshield which extends more than two inches upward into the horizontally forward projected vision area of the windshield except windshield wiper components and hood ornaments identical to those originally installed by a recognized manufacturer. For the purposes of this section, the projected vision area of the windshield shall be defined as that area above a line from the top of the steering wheel to the top of the front fenders or hood, whichever is higher.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-050, filed 5/13/83.]

WAC 204-90-060 Instrumentation. Speedometer: A special motor vehicle shall be equipped with an operating speedometer calibrated to indicate "miles per hour," and may also indicate "kilometers per hour."

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-060, filed 5/13/83.]

WAC 204-90-070 Rear view mirror. A special motor vehicle shall be equipped with at least two rear view mirrors each having substantial unit magnification. One shall be mounted on the inside of the vehicle in such a position that it affords the driver a clear view at least two hundred feet to the rear. The other shall be mounted on the outside of the vehicle, on the driver's side, in such a position that it affords the driver a clear view to the rear. When an inside mirror does not give a clear view to the rear, an outside mirror meeting the requirements of this section shall be required on each side of the vehicle. The mirror mountings shall provide for mirror adjustment by tilting both horizontally and vertically.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-070, filed 5/13/83.]

WAC 204-90-080 Accelerator control systems. A special motor vehicle shall be equipped with an accelerator control system containing a double spring that returns the engine throttle to an idle position when the driver removes the actuating force from the accelerator control. The geometry of the throttle linkage shall be so designed that the throttle will not lock in an open position. A vehicle equipped with cruise control is exempt when the cruise control is actuated.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-080, filed 5/13/83.]

- WAC 204-90-090 Brakes. (1) Service brakes: A special motor vehicle shall be equipped with brakes acting on all wheels. The service brakes, upon application, must be capable of stopping the vehicle within a 12 foot lane, and:
- (a) Developing an average tire to road braking or retardation force of not less than 52.8% of the gross vehicle weight;
- (b) Decelerating the vehicle at a rate of not less than 17 feet per second; or
- (c) Stopping the vehicle within a distance of 25 feet from a speed of 20 MPH.

Tests shall be made on a level, dry, concrete or asphalt surface free from loose material.

(2) Parking brakes: A special motor vehicle shall be equipped with a parking brake operating on at least two wheels on the same axle which, when applied, shall be capable of holding the vehicle on any grade on which the vehicle is operated. Parking brakes must be separately actuated so that failure of any part of the service brake actuation system would not diminish the vehicle's parking brake holding capability.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-090, filed 5/13/83.]

WAC 204-90-100 Fuel system. A special motor vehicle shall have all fuel components securely fastened to the vehicle so as not to interfere with the vehicle's operation. The components (tank, tubing, hoses, pump, etc.) shall be of leakproof design and be securely attached with fasteners designed for that purpose. All fuel system vent lines shall extend outside of the passenger compartment.

Fuel lines shall be positioned so as not to be in contact with the high temperature surfaces or moving components.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-100, filed 5/13/83.]

WAC 204-90-110 Steering. A special motor vehicle shall be equipped with a continuous rim steering wheel the outside circumference of which shall be free from holes or angles capable of catching fingers, buttons, clothing, or jewelry, and having an outside diameter of not less than 12 inches. The steering wheel shall move not less than two turns nor more than six turns, and the steering system shall remain unobstructed when turning from stop to stop. The steering box mount shall be securely welded or bolted to the vehicle frame or other suitable location as originally installed by a recognized manufacturer. While the vehicle is in a sharp turn at a speed of between 5 and 15 MPH, release of the steering wheel shall result in a distinct tendency for the vehicle to increase its turning radius.

Note: Stability tests shall be performed on a dry, level concrete or asphalt road having no loose surface contaminant, and the vehicle's tires shall be inflated to the recommended pressure in accordance with the tire load per FMVSS 109. The vehicle shall contain a front seat passenger or simulated equivalent 150 lbs. weight secured to the seat in addition to the driver.

A special motor vehicle shall have steering capability for negotiating right and left turns of a 32 foot radius or less measured from the center of the turn circle to the outside front wheel track.

A special motor vehicle shall not have more free play or lash in the steering system than that allowed in the table below. The test for free play or lash shall be conducted as follows: With the engine on and the wheels in the straight ahead position, turn the steering wheel in one direction until there is a perceptible movement of a front wheel. If a point on the steering wheel rim moves more than the value shown in the table before perceptible return movement of the wheel under observation, there is excessive lash or free play in the steering system.

STEERING SYSTEM FREE PLAY VALUES

Steering wheel diameter	Lash
(Inches)	(Inches)
16 or less	2
18	2-1/4
20	2-1/2
22	2-3/4

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-110, filed 5/13/83.]

WAC 204-90-120 Suspension. The ground clearance for a special motor vehicle shall be such that the vehicle shall be able to be in motion on its four rims on a flat surface with no other parts of the vehicle touching that surface. Maximum ground clearance for a special motor vehicle shall be determined using the table contained in WAC 204-90-040(6) Bumpers.

The spring mounts and shackles shall be properly aligned and of sufficient strength so as to support the gross weight of the vehicle and provide free travel in an up and down movement under all conditions of operation. Rear coil spring suspension systems shall incorporate anti-sway devices to control lateral movement.

A special motor vehicle shall have a suspension system that allows movement between the unsprung axles and wheels and the chassis body and shall be equipped with a damping device at each wheel location. The suspension system shall be capable of providing a minimum relative motion of plus and minus 2 inches. When any corner of the vehicle is depressed and released, the damping device shall stop vertical body motion within two cycles.

There shall be no heating or welding of coil springs, leaf springs, or torsion bars.

No special motor vehicle shall be constructed or loaded so that the weight on the wheels of any axle is less than 30% of the gross weight of the vehicle.

A special motor vehicle shall be capable of stable, controlled operation while traversing a slalom—type path passing alternately to the left and right of at least four cones or markers arranged in a straight line and spaced 60 feet apart at a minimum speed of 25 MPH.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-120, filed 5/13/83.]

WAC 204-90-130 Exhaust system. A special motor vehicle shall be equipped with a leakproof exhaust system that includes the exhaust manifold(s), headers, the piping leading from the flange of the exhaust manifold(s), the muffler(s), and the tail piping.

Exhaust systems on property—carrying vehicles shall discharge the exhaust fumes to the rear of that part of the vehicle designed and normally used for carrying the driver and passengers.

Exhaust systems on passenger vehicles shall discharge the exhaust fumes at a location to the rear of the vehicle body or direct the exhaust fumes outward from the side of the vehicle body at a location rearward of any operable side windows. No part of the exhaust system shall pass through any area of the vehicle that is used as a passenger compartment, nor in close proximity to the fuel system without being properly shielded.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-130, filed 5/13/83.]

WAC 204-90-140 Electrical system requirements. Note: The lamps on special motor vehicles shall comply with standards contained in chapter 204-72 WAC.

- (1) Dimmer switch: The headlamp circuit shall be equipped with a driver-controlled high and low beam selector switch unless the vehicle is equipped with single beam headlamps.
- (2) Hazard warning switch: A Type II special motor vehicle shall be equipped with a hazard warning switch causing all turn signal lamps to flash simultaneously.
- (3) Headlamp switch: The headlamp switch shall activate the headlamps, tail lamps, license plate lamp, and when required, marker lamps simultaneously.
- (4) Headlamp system: A special motor vehicle shall be equipped with two headlamp units or two pairs of headlamp units mounted at the same height, equidistant of each side of the vertical centerline, and as far apart as practical. Headlamp systems shall conform to the requirements of chapter 46.37 RCW. The headlamps shall be mounted on the front forward of the windshield in a plane through the longitudinal centerline of the vertical. The headlamps shall be mounted not less than 24 inches nor more than 54 inches (72 inches for trucks) above the road surface when measured to the headlamp center. Lamp sub-body(ies) shall be constructed with adequate adjustments to afford proper aiming of the headlamp(s) in compliance with chapter 204-72 WAC. Alternative headlamp systems shall comply with FMVSS 108.
- (5) High beam indicator: An indicator shall be provided which indicates to the driver when the high beams of the headlamp system are energized. The indicator shall emit a light other than white plainly visible to the driver under normal driving conditions.
- (6) Horn: A special motor vehicle shall be equipped with an operable horn capable of emitting sound audible under normal conditions from a distance of not less than 200 feet. No horn or other warning device shall emit an unreasonably loud or harsh sound or whistle nor shall a bell or siren be used as a warning device. The device used to actuate the horn shall be easily accessible to the driver when operating the vehicle.
- (7) License plate lamp: At least one white lamp shall be provided at the rear license plate which clearly illuminates the license plate to a distance of 50 feet.
- (8) A special motor vehicle, if equipped with an automatic transmission, shall be equipped with a safety switch that prevents the starter motor from being actuated except when the gear selector is in the neutral or park position.
- (9) Parking lamps: Two white to yellow (amber) parking lamps, in compliance with FMVSS 108, shall be mounted on the front, one on each side and equidistant from the vertical centerline, at the same height, and as far apart as practical. The parking lamps shall be

mounted not less than 15 inches nor more than 72 inches above the roadway. Type I vehicles not originally equipped with parking lamps are exempt from this requirement.

- (10) Reflex reflectors: Two red Class A reflectors, in compliance with FMVSS 108, shall be mounted on the rear, symmetrically disposed about the vertical centerline. The reflex reflectors shall be mounted not less than 15 inches nor more than 72 inches includes above the roadway.
- (11) Stop lamps: Two red stop lamps, in compliance with FMVSS 108, shall be mounted on the rear, one on each side equidistant from the vertical centerline of the vehicle, at the same height, and as far apart as practical. The stop lamps shall be mounted not less than 15 inches nor more than 72 inches above the roadway. Type I vehicles, which were originally equipped with only one stop lamp, need not be equipped with two lamps, providing the lamp is located in accordance with the original design configuration.
- (12) Tail lamp system: Two red lamps, in compliance with FMVSS 108, shall be mounted on the rear, one on each side equidistant from the vertical centerline, at the same height, and as far apart as practical. The tail lamps shall be mounted not less than 15 inches nor more than 72 inches above the roadway. Type I vehicles, which were originally equipped with only one tail lamp, need not be equipped with two tail lamps providing the original lamp is located in accordance with the original design configuration.
- (13) Turn signal lamps (Combination lighting devices are acceptable.): Two Class A red or yellow (amber) turn signal lamps and two Class A yellow (amber) turn signal lamps, in compliance with FMVSS 108, shall be mounted as follows: At or near the front, one yellow (amber) lamp on each side equidistant from the vertical centerline, at the same height, and as far apart as practical. On the rear, one red or yellow (amber) lamp on each side equidistant from the vertical centerline, at the same height, and as far apart as practical. All turn signal lamps shall be mounted not less than 15 inches nor more than 83 inches above the roadway. Type I vehicles are exempt from turn signal requirements if not originally equipped.
- (14) Turn signal switch: A special motor vehicle (if equipped with turn signals) shall be equipped with a switch controlled by the operator of the vehicle which shall cause the turn signal lamps to function. The switch shall be self-cancelling and capable of cancellation by a manually-operated control.
- (15) Turn signal indicator: If the front signal lamp(s) are not readily visible to the driver, there shall be an illumination indicator to give the operator a clear, unmistakable indication that the turn signal system is on. The illumination indicator shall consist of one or more bright lights flashing at the same frequency as the signal lamps, and it shall emit a light other than white.

[Statutory Authority: RCW 46.37.005. 83-11-028 (Order 83-05-01), § 204-90-140, filed 5/13/83.]

## Chapter 204-91A WAC TOWING BUSINESSES

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204-91A-170	Minimum tow truck equipment standards.
204-91A-180	Vehicle towing/operator qualifications, restrictions,
	and requirements.

WAC 204-91A-010 Authority. This chapter is adopted pursuant to RCW 46.37.005, 46.55.050, and 46.61.567 which require that rules, regulations, and equipment standards for tow trucks be made and to provide for the removal from the highway of disabled, abandoned, or damaged motor vehicles, or the removal of vehicles when the driver is intoxicated or otherwise incompetent.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-010, filed 6/23/89.]

WAC 204-91A-020 Purpose. This chapter is intended to implement the public policy expressed by the legislature and to carry out the statutory duties of the Washington state patrol.

All registered tow truck operators providing service as a result of being appointed by, or contracted to the Washington state patrol shall conduct all operations in accordance with all applicable laws of the state of Washington and applicable rules of the Washington state patrol and the department of licensing.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-020, filed 6/23/89.]

WAC 204-91A-030 Definitions. The following definitions shall apply throughout this chapter:

- (1) "Patrol" means the Washington state patrol as defined in RCW 43.43.010.
- (2) "Chief" means the chief of the Washington state patrol.
- (3) "Department" means the Washington state department of licensing.
- (4) "Director" means the director of the department of licensing.
- (5) "Tow truck permit" means the permit issued annually by the department that has the classification of service the tow truck may provide stamped upon it.
- (6) "Registered tow truck operator" or "operator" means any person who engages in the impounding, transporting, or storage of unauthorized vehicles, or in the disposal of abandoned vehicles.

- (7) "Tow truck" means a motor vehicle that is equipped for and used in the business of towing or otherwise transporting other vehicles with specific equipment approved by the state patrol.
- (8) "Tow truck number" means the number issued by the department to tow trucks used by a registered tow truck operator in the state of Washington.
- (9) "Tow truck service" means the towing, moving, transporting, or impounding of vehicles, together with personal effects and cargo, by a registered tow truck operator utilizing equipment approved by the equipment and standards review section (ESR) of the patrol.
- (10) "Highway" means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.
- (11) "Place of business" means a building which the registered tow truck operator occupies, either continuously or at regular times, where tow business books and records are kept and tow business is transacted in each assigned tow zone.
- (12) "Vehicle storage area" means the approved yard/buildings (primary and secondary) where stored vehicles are kept. The storage areas and fencing will comply with the requirements as established by the department and all local zoning rules and regulations. Both primary and secondary storage areas must be physically located within tow zone assigned to the operator.
- (13) "Special event" means any event which causes an unusually large number of impounded vehicles and/or tow calls in a short period of time and is so declared by the district commander or designee.
- (14) "Special event storage area" means an area used for temporarily storing vehicles impounded/towed from special events. Approval for such areas shall be obtained from the department, the patrol, and appropriate city and county jurisdictions.
- (15) "District commander" means the commanding officer of an area established by the Washington state patrol.
- (16) "Inspector" means a commissioned officer of the Washington state patrol who has been designated as a tow truck inspector by the patrol.
- (17) "Tow zone" means that specific geographical area designated by the district commander for the removal of vehicles as defined in Title 46 RCW and this chapter.
- (18) "ESR" means the equipment and standards review section of the Washington state patrol.
- (19) "Letter of appointment" means a letter issued by the ESR that authorizes a registered tow truck operator to tow and store vehicles on a rotational or contractual basis, in a specific area, for the Washington state patrol. Effective October 15, 1989, the letter of appointment must have an attached valid contractual agreement listing the maximum rates that will be charged by the operator for services provided as a result of state patrol originated calls.
- (20) "Initial tow" means services provided as a result of an original call, on a particular vehicle, that the tow

- operator receives from the patrol as a result of contract or rotational call list.
- (21) "Secondary tow" means towing services from an operator's storage facility or place of business, to another location designated by the owner/agent of a vehicle that was initially towed as a result of call from the patrol.
- (22) "Letter of contractual agreement" means the document, attached to the letter of appointment, that specifies the maximum tow rates that may be charged for services provided as a result of state patrol originated calls.

[Statutory Authority: RCW 46.61.567. 89-21-044, \$ 204-91A-030, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), \$ 204-91A-030, filed 6/23/89.]

- WAC 204-91A-040 Inspections. Upon the request of a registered tow operator or applicant, the patrol shall conduct an inspection of the applicant's place of business, facilities, and equipment to determine if the applicant meets the requirements of chapter 46.55 RCW, or Titles 308 and/or 204 WAC. Verification must be shown to the inspector that the applicant complies with all applicable local laws and regulations as prescribed for the geographical area where the towing business will be established. If local zoning regulations are applicable, a copy of the certification of approval from the local zoning commission will be furnished to the inspector. This certification may be included in the department's application form for license. The certification will become a part of the permanent record maintained on each approved towing firm by the ESR.
- (1) Reinspections will be conducted at least once a year. Unscheduled inspections may be conducted without notice at the operator's place of business by an inspector to determine the fitness of tow trucks, facilities, and business records.
- (2) If reinspection of a previously-approved tow truck reveals equipment defects, one of the following procedures shall apply:
- (a) In the event of a safety-related defect which would render the tow truck a safety hazard upon the public highway, a red "out-of-service" sticker shall be affixed immediately by the inspector.
- (b) In the event of missing or defective equipment that does not constitute a safety hazard but is required, the inspector shall advise the operator of the defect. If after ten days the operator fails or refuses to repair the defect, the red out—of—service sticker shall be affixed.
- (c) Upon confirming the satisfactory repair of the defect or defects that caused the tow truck to be taken out of service, the inspector shall remove the red sticker. In the event that the original inspector is not available to reinspect the equipment, another patrol officer appointed by the appropriate supervisor may do so. The reinspection shall be completed as soon as possible after the operator advises the patrol that the defect has been repaired. Whenever practicable this shall be done within three days and may require the operator to bring the truck to the inspector.

- (d) Upon sale or other transfer of a tow truck from the business, the operator shall so advise the inspector who will obtain the issued cab card permit and will remove any decals indicating truck class, district and/or zone. The permit will be forwarded to the department by the inspector who will also advise the ESR of the action taken.
- (e) Upon the purchase or acquisition of any additional or replacement tow truck(s) to be used pursuant to this chapter, the operator shall immediately notify the patrol and request an inspection of the new unit. The new unit shall not be used for public or private impound calls until satisfactory inspection is completed and a cab card permit and/or decals for the vehicle has been issued by the department and/or patrol.
- (3) On original inspection, and subsequent reinspection, the inspector shall confirm the identities and status of driving privilege of all persons that operate the tow trucks. The inspector shall notify the operator if any person does not meet the minimum license requirements.
- (a) In the event that an operator becomes aware that the driving privilege of an employee, or owner no longer meets the minimum requirements, the operator shall prohibit that person from operating any tow truck.
- (b) An operator shall, within three days of employing a new driver, advise the inspector in writing of the identity, including name, address and date of birth, of the new employee. The inspector shall notify the operator if the new employee does not meet the minimum license requirements.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-040, filed 6/23/89.]

WAC 204-91A-050 Certification. After inspection of the towing business facilities and equipment, the inspector will certify one of the following:

- (1) The towing operation of the applicant fully conforms to the requirements and qualification standards established by the Revised Code of Washington, the department, and the patrol; or
- (2) The towing operation of the applicant does not conform to the requirements and qualification standards. The inspector shall state the reasons for failure to qualify in a separate report which shall be attached to the application/inspection form.

In the event the applicant fails to meet the established requirements for approval, the applicant may, after correcting all deficiencies, request a reinspection for certification.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89–14–015 (Order 89–04–ESR), § 204–91A–050, filed 6/23/89.]

WAC 204-91A-060 Application for letter of appointment. (1) An application for a letter of appointment will not be considered or approved until the applicant is qualified as a licensed and registered tow truck operator with at least one approved "A" or "B" class tow truck. Additional trucks are optional.

Note: An exception may be made if an operator desires a letter of appointment for class "C" tows only. In such situations, only a class "C" truck is required.

Upon request, the ESR shall advise the applicant of the contents of the department's regulations and of the standards established for the issuance of a letter of appointment.

- (2) An application for a letter of appointment to provide towing service for the patrol shall be filed by the applicant with the local state patrol district office on a form prescribed by the patrol. In the case of a partnership, each partner shall apply on the form prescribed. In the case of a corporation, the patrol may require that each of the present and any subsequent officers, managers, and stockholders holding ten percent or more of the total issued and outstanding stock of the applicant corporation complete an application form. A signed "letter of contractual agreement" listing the maximum tow rates to be charged for services resulting from state patrol originated calls will be attached to the application.
- (3) The district commander or designee shall complete tow zone portion of the form. He/she will enter "approved" or "disapproved" and will sign the form next to the zone designation. The application and "letter of contractual agreement" will be forwarded to the ESR section.
- (4) The application form will be assigned a docket number, by the ESR, which shall be its permanent identification number for all matters relating to appointments, granted or denied, and any other correspondence with the ESR thereafter.
- (5) The filing of an application for a letter of appointment does not in itself authorize the operator to provide towing services pursuant to this chapter until a letter of appointment has been issued by the ESR. However, nothing herein shall prohibit the patrol from calling the towing business upon the specific request of a person responsible for a vehicle or his agent.

[Statutory Authority: RCW 46.61.567. 89-21-044, § 204-91A-060, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-060, filed 6/23/89.]

WAC 204-91A-070 Issuance of a letter of appointment. (1) No towing operator shall be called to perform a towing service at the request of the patrol unless such operator has a letter of appointment as described in this chapter. No such letter of appointment will be issued unless all qualifications set out in this chapter have either been met by the applicant, or a waiver of those qualifications not met has been granted by the ESR.

(2) The ESR commander shall have the authority to issue letters of appointment upon request after receiving certification from the inspector and notice from the department that the requestor has been licensed as a registered tow truck operator.

If the ESR shall find the requestor does not or will not meet all requirements and is not qualified for a waiver of the requirements, then such request shall be denied. The ESR shall notify the requestor of its decision in writing, stating the reasons. If the request is approved, the ESR commander will issue the letter of appointment and forward it to the tow operator. The tow

company will be admitted to the patrol's call list for the appropriate tow zone on the effective date of the letter.

If the district commander recommends denial of a request for a letter of appointment, the ESR commander shall notify the applicant and provide an opportunity for applicant to have a hearing as provided in chapter 34.05 RCW.

- (3) A letter of appointment will be valid for one business, in a single tow zone, assigned by the district commander. Requests for additional letters of appointment in the same or another zone must be based on a complete and separate place of business capable of independent operation within the appropriate zone.
- (4) A tow operator (or a district commander) may petition the ESR in writing for a waiver of one or more requirements. The ESR may grant a waiver if it finds that:
- (a) The towing service available to the patrol without the waiver is inadequate to meet the needs of the public;
  - (b) The request is otherwise reasonable; and
- (c) The request has the district commander's approval.

In the event a qualified tow operator meeting all requirements and qualifications receives a letter of appointment in the same zone as a tow operator that had earlier been granted a waiver, the tow operator with a waiver will have the letter of appointment rescinded by the ESR and after notification will not be called for patrol—initiated tows.

- (5) Every letter of appointment shall be issued in the name of the applicant and the holder thereof shall not allow any other person or business to use the letter of appointment.
- (6) The letter of appointment will only be valid for the place of business named on the application and will not apply to any other place of business.
- (7) A letter of appointment shall be valid until suspended, superseded, or revoked by the ESR.
- (8) The holder of each letter of appointment must maintain at least one tow truck meeting the minimum class "A," "B," or "C" standards as listed in WAC 204–91A–170.
- (9) All storage areas, primary and secondary, for each place of business must be in the tow zone assigned to that place of business.

[Statutory Authority: RCW 46.61.567. 89-21-044, § 204-91A-070, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-070, filed 6/23/89.]

WAC 204-91A-080 Suspension or revocation of letter of appointment. Upon receiving evidence that any appointee has failed to comply or no longer complies with any requirement or provision of law or this chapter, the ESR may deny, suspend, or revoke the letter of appointment. The appointee shall be given notice of the action and an opportunity to be heard as prescribed in chapter 34.05 RCW.

The holder of a letter of appointment may voluntarily relinquish the letter. The ESR and the district commander will be advised in writing of this voluntary relinquishment. After receiving written notice, the district commander will cause the inspector to physically obtain the original letter of appointment and forward it to the ESR.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-080, filed 6/23/89.]

WAC 204-91A-090 Hearing procedure. The provisions of chapter 1-08 WAC shall govern the conduct of any hearing held pursuant to this chapter. The burden of proof in any hearing before the chief shall be on the applicant seeking a letter of appointment, or the person or agency seeking the suspension or revocation of a letter of appointment, or other action by the chief. The chief, after having heard and considered all pertinent evidence, or after having considered a record of a hearing conducted by an administrative law judge duly appointed pursuant to chapter 34.12 RCW, shall make written findings of facts and conclusions based on evidence presented. Oral proceedings shall be recorded on tape and such tape shall become part of the hearing record.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-090, filed 6/23/89.]

WAC 204-91A-100 Appeal. Any person aggrieved by a decision of the chief denying, suspending, or revoking a letter of appointment may appeal such decision to the superior court under the provisions of chapter 34.05 RCW.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-100, filed 6/23/89.]

- WAC 204-91A-110 Complaints. All law enforcement or local licensing agencies that receive complaints involving registered tow truck operators shall forward the complaints, along with supporting documents, including all results from the complaint investigation, to the department.
- (1) Those complaints investigated by the patrol will be reviewed by the ESR commander before forwarding to the department.
- (2) The patrol shall investigate all complaints involving deficiencies of equipment.
- (3) A complete copy of all complaints investigated by the patrol will be kept on file by the ESR.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-110, filed 6/23/89.]

- WAC 204-91A-120 Business office hours and records. Business hours for purposes of inspection of records, place of business, and towing equipment shall be 8 a.m. to 5 p.m., excluding weekends and holidays.
- (1) When an operator is not open for business and does not have personnel present at the place of business, the operator shall post a clearly visible telephone number at the business location for the purpose of advising the public how to make contact for the release of vehicles or personal property.

- (2) The operator shall maintain personnel who can be contacted twenty-four hours a day to release impounded vehicles within a thirty-minute period of time.
- (3) All billing invoices shall be consecutively numbered and shall contain the following information:
  - (a) Date of service and tow truck operator's name.
  - (b) Time of departure in response to the call.
  - (c) Time service completed.
  - (d) Class of tow truck.
- (e) If the towing call is for a Washington state patrol request, another police agency, a private impound, or the result of a private citizen request.
  - (f) All fees for service shall be itemized.
  - (g) The date and time the vehicle was released.

Note: Yard cards containing the above information may be used for internal control of vehicles by the operator until the vehicle is released, sold, or otherwise disposed of. Yard cards shall be supplemental to, and shall not replace the invoice required above.

A copy of the invoice shall be filed by invoice number at the business location and a copy of any voided invoice shall be retained in this same file. Another copy of the invoice shall be included with the transaction file items identified in RCW 46.55.150.

[Statutory Authority: RCW 46.61.567. 89-21-044, § 204-91A-120, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-120, filed 6/23/89.]

WAC 204-91A-130 Personal property handling procedures. All personal belongings and contents in the vehicle and not permanently attached, shall be kept intact, and shall be returned to the vehicle's owner or agent during normal business hours upon request and presentation of a driver's license or other sufficient identification. Personal property not being held for evidence purposes by the impounding agency, shall be released to the vehicle's owner or agent without charge, upon demand, during normal business hours of 8:00 a.m. to 5:00 p.m. except for weekends and legal holidays. Release procedures will also follow guidelines as set forth in chapter 308-61 WAC and chapter 46.55 RCW.

- (1) The items of personal property which the state patrol will not accept in response to RCW 46.55.090 include but are not limited to the following:
  - (a) Tire chains;
  - (b) Spare tire/wheels;
  - (c) Used auto parts and/or accessories;
  - (d) Seat covers;
  - (e) Fuel containers:
  - (f) Jacks, lug wrenches;
- (g) Radios, stereos, and other items attached to the vehicle by bolts, screws, or some other manner which incorporates them to the vehicle shall remain with the vehicle;
  - (h) Refuse;
  - (i) Trash;
  - (j) Garbage;
  - (k) Open alcohol containers;
- (1) Soiled or mildewed clothing, shoes, blankets, tarps, etc., having no actual value;

- (m) Miscellaneous unofficial papers and other items having no actual value.
- (2) Items which must be turned over to the patrol and inventoried include but are not limited to:
  - (a) Money;
  - (b) Wallets or purses;
  - (c) Bank or check books;
  - (d) Bank or credit cards;
- (e) Official identification cards, operator's license, or passports;
  - (f) Jewelry items;
  - (g) Firearms and any type weapon;
  - (h) Contraband and/or controlled substances;
- (i) Stocks, bonds, money orders, bank certificates, travelers checks, postage stamps, food stamps, etc.;
  - (j) Other items of obvious value.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-130, filed 6/23/89.]

WAC 204-91A-140 Fees. (1) All towing fees shall be based on a flat, hourly rate only and shall apply without regard for the hour of day, day of the week or whether the service was performed on a Saturday, Sunday, or holiday. The hourly rate for each class of truck shall be the only charge for services performed for initial tows and secondary tows performed during business hours. Charges for secondary tows performed during nonbusiness hours, on weekends or holidays, if different from the hourly rate, shall be negotiated and agreed upon with the vehicle owner/agent before the tow is made.

(2) The chief of the state patrol shall, prior to October 15 of each year, establish maximum hourly towing rates for each class of tow truck and maximum daily storage rates that tow operators may charge for services performed as a result of state patrol calls. The maximum rates shall be determined after consulting with members of the towing industry, review of current private towing rates, and such other economic factors as the chief may deem appropriate.

When signed by the chief (or his/her designee) and the tow operator, a contractual agreement to charge no more than the maximum rates shall become part of the operator's letter of appointment. The tow operator may, however, adopt a rate schedule charging less than the maximum rates established by the chief.

The hourly rate shall:

- (a) Be the only basis used to compute total charges for towing services.
- (b) Apply when the call is made by the state patrol, for whatever reason, including but not limited to accidents, incidents, disableds, and impound requests.
- (c) Include all ancillary activities such as, but not limited to, removal of glass and debris from the roadway and any other area referred to as the "scene or incident," necessary winching, dolly service, drive line removal, installing chains on the tow truck, installation of portable lights, vehicle hookup for towing or transporting, tire replacement (on vehicle to be towed) and standby time.

- (d) Be considered to include one person (the driver) per truck. Any charges for additional labor and/or ancillary vehicles (trailers, pickups, etc.), for removing debris, cargo, etc., must have prior authorization from the legal or registered owner/agent, or a member of the patrol at the scene.
- (e) Be computed from the actual time the truck departs in response to a call until it returns to the starting location or it begins responding to another call minus any down time.\* The hourly rate shall be applied to the resulting net time and, after the first hour, shall be rounded to the nearest fifteen minutes. The operator may charge the hourly rate for the first hour or any portion thereof. After the first hour, no more than one-quarter of the hourly rate may be charged for each fifteen minutes of tow or service work performed.
- \* Down time includes coffee or meal breaks, personal errands by the operator, and/or any mechanical failure on the truck or equipment.
  - (3) The basic storage fee:
- (a) Shall be calculated on a twenty-four-hour basis and shall be charged to the nearest half day from the time the vehicle arrived at the secure storage area; and
- (b) Shall be the same for all three and four-wheel vehicles less than twenty-five feet in length; and
- (c) For vehicles or combinations exceeding twentyfive feet shall be computed by multiplying each twentyfive feet of vehicle length, or any portion thereof, by the basic storage fee;
- (d) For two-wheel motorcycles shall be one-half the basic storage fee for three and four-wheel vehicles.
- (4) After hours release fee. If an operator or employee is already present, for other reasons, at the storage facility after business hours when a customer arrives, the vehicle and/or property shall be released as if it were during business hours. No "after hours fee" may be assessed. If the operator or employee is called to the place of business specifically for the purpose of releasing the vehicle and/or property, an "after hours fee," equivalent to one-half of the maximum Class "A" hourly rate, may be assessed.
- (5) Any tow operator who charges the general public (i.e., private citizens) rates lower than those identified in the contractual agreement for services listed below shall charge the same lower rate for similar services performed as a result of state patrol originated calls.
- (a) Roadside mechanical service, including fuel transfer, tire and belt changes, etc.;
  - (b) Disabled vehicle tow/transportation;
  - (c) Storage;
  - (d) After hours release fees.

Any such price requirement shall not be imposed for unoccupied vehicle situations in which the owner/operator has had no prior contact with either the state patrol or the tow operator.

[Statutory Authority: RCW 46.61.567. 89-21-044, § 204-91A-140, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-140, filed 6/23/89.]

- WAC 204-91A-150 Towing procedure. Officers of the patrol shall obtain towing services to remove damaged or disabled vehicles from the highway or to remove vehicles from the highway with the following limitations:
- (1) If the vehicle does not constitute an obstruction to traffic and the owner/operator of the vehicle is present at the scene and appears competent to determine disposition of the vehicle, the owner/operator may, upon request, make his own arrangements for removal. This does not affect rotational positions.
- (2) If the vehicle is to be removed from the scene, the owner/operator of the vehicle may make a specific request for a particular tow operator. The request will be honored by the officer of the patrol if the requested tow operator is reasonably available and the request is otherwise reasonable in view of the circumstances at the scene. This does not affect rotational positions.
- (3) When the owner/operator of the vehicle makes no specific request, or when the owner/operator is incapacitated or is unavailable, the officer of the patrol shall, when practicable, obtain towing services by notifying the radio communications center and requesting tow service at that location.
- (4) The chief shall specify that tow services obtained by the patrol will be on a contractual, rotational, or other basis in specific geographical areas in the state.
- (5) For the purposes of rotational or contractual tow requests, an approved tow truck shall be used only in the tow zone designated by the district commander. The patrol may, when tow service is not reasonably available within a given zone, obtain service from an adjacent zone.
- (6) The patrol may adopt rules that will allow approved towing firms to establish their own central dispatch centers to dispatch tow trucks at the request of the patrol in selected geographical areas of the state.
- (a) These dispatch centers will be the responsibility of those member towing firms that utilize this type of service.
- (b) The patrol communications center will advise the towing dispatch center of the location, zone number, class of tow truck(s), and number of tow trucks needed at the location. The towing dispatch center will be responsible for dispatching the participating firm's tow trucks.
- (c) Permanent records of all tow trucks dispatched at the request of the patrol will be maintained by the towing dispatch center for a period of three years.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89–14–015 (Order 89–04–ESR), § 204–91A–150, filed 6/23/89.]

WAC 204-91A-160 Tow zones. Each district commander shall outline geographical areas within his district to be designated as tow zones. The geographical tow zones for each patrol district shall be filed with the ESR. The boundaries established pursuant to this action may be modified as circumstances warrant. Considerations may include, but are not limited to, such factors as the frequency and severity of accidents and the frequency of DWI arrests in various areas throughout the

district, the volume and pattern of traffic, the availability of tow services, and the accessibility of tow services to the areas of need within each district. Nothing herein shall prevent the patrol from amending tow zones from time to time as required by changing traffic and accident patterns and other such factors affecting the adequacy of towing service available to the patrol.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-160, filed 6/23/89.]

WAC 204-91A-170 Minimum tow truck equipment standards. All tow/recovery trucks used by a registered tow operator for public or private impounds or in response to patrol requests shall meet the minimum standards as listed in this section. All equipment used in conjunction with each truck shall be commensurate with the basic boom rating or, if the truck is not equipped with booms, the manufacturer's gross vehicle weight rating. A waiver for one or more requirements may be granted as outlined in WAC 204-91A-070(4).

- (1) CLASS "A" TOW TRUCKS: Trucks that are capable of towing and recovery of passenger cars, pickup trucks, small trailers, or equivalent vehicles. Class "A" trucks shall:
- (a) Comply with legal lighting, equipment, and license requirements.
- (b) Have department of licensing registration and truck numbers painted or permanently affixed to both sides of truck.
- (c) Have a revolving/intermittent red light with three hundred sixty degree visibility. May also be equipped with flashing amber and/or white lights which may be used in conjunction with the red lamp(s).
- (d) Have a broom, minimum twelve inches wide, handle four feet long.
- (e) Have a scoop type shovel, minimum seven inches wide, overall length minimum three feet long.
  - (f) Be maintained in a reasonably clean condition.
- (g) Have all equipment commensurate with total ton rating of booms.
- (h) Have firm name, city of address, and phone number permanently affixed to both sides of the vehicle.
- (i) Have two pinch bars or equivalent devices; one tapered, one flattened; one three feet and one four feet, with a minimum diameter of three-quarters of an inch.
- (j) Have a two-way radio or mobile telephone system capable of communicating with a working base station. A citizen band radio does not suffice. A mobile telephone system is acceptable if:
- (i) The equipment is of a recognized and established manufacture and is properly installed.
- (ii) The equipment is in proper working order and functions correctly throughout the assigned tow areas.
- (iii) The equipment does not utilize the truck horn or a siren or other sound device to signal incoming calls.
- (iv) The equipment is used in a correct and lawful manner.
- (k) Have a twenty BC-rated fire extinguisher or equivalent.
- (l) Have portable tail, stop, and turn signal lights for vehicle being towed.

- (m) Have a minimum of two snatch blocks.
- (n) Have a tow sling or other comparable device made of material and used in such manner so as to protect vehicles being towed or recovered.
- (o) Have a portable dolly or its equivalent for hauling vehicles that are not otherwise towable.
- (p) Have ten thousand pounds minimum manufacturer's gross vehicle weight rating or equivalent.
- (q) Have dual tires on the rear axle or duplex type tires, referred to as "super single" with load rating that is comparable to dual tire rating.
- (r) Have a minimum of one hundred feet of threeeighths inch continuous length cable or its equivalent, measured from the point of attachment to drum and hook, in safe working condition on each drum.
- (i) Each cable shall be capable of being fully extended from and fully wound onto its drum.
- (ii) All cables and/or wire ropes shall be in good working order and shall have:
- (A) No more than six randomly distributed broken wires in one rope lay, or more than three broken wires in one strand in one rope lay.
  - (B) No evidence of heat damage from any cause.
- (C) End attachments that are not cracked, deformed, worn, or loosened.
- (iii) Cable end connections shall be swaged or, if clamped, shall have a minimum of three clamps spaced a minimum of six rope diameters apart and attached with the base or saddle of the clamp against the longer or "live" end of the cable. The "U" bolt will be placed over the short or "dead" end of the rope and will be of the proper size for the cable being clamped.
- (s) Have a minimum six ton boom rating with single or dual booms. Dual winches to control a minimum of two service drums.
- (2) CLASS "B" TOW TRUCKS: Trucks that are capable of towing and/or recovery of medium size trucks, trailers, motor homes, or equivalent vehicles. Class "B" tow trucks shall meet the requirements of subsection (1)(a) through (o) of this section, and in addition, shall have:
- (a) Seventeen thousand pounds minimum manufacturer's gross vehicle weight rating or equivalent.
- (b) Minimum ten ton boom rating, single or dual booms, with two independent winches and drums.
- (c) A minimum of one hundred fifty feet of seven-sixteenths inch cable on each drum, measured from points of attachment. All cable shall be in safe operating condition as described for class "A" trucks.
- (d) Minimum of four standard release tools (caging stud assemblies).
- (3) CLASS "C" TOW TRUCKS: Trucks that are capable of towing and/or recovery of large trucks, trailers, buses, motor homes, or similar vehicles. Class "C" tow trucks shall meet the requirements of subsection (1)(a) through (n) of this section and in addition, shall have:
  - (a) Tandem rear axle truck chassis (both drive axles).
- (b) Twenty-five ton minimum single or dual boom and winch rating.
- (c) One hundred fifty feet of minimum nine-sixteenths inch cable on each drum measured from points

of attachment. All cable shall be in safe operating condition as described in class "A."

- (d) Air brakes and system capable of supplying air to towed vehicle.
- (e) Minimum of four standard release tools (caging stud assemblies).
- (f) Forty thousand pounds minimum manufacturer's gross vehicle weight rating or equivalent.
- (4) CLASS "D" TOW TRUCKS: Trucks that are equipped for and primarily used as "wheel lift" trucks. Class "D" must meet the requirement of subsection (1)(a) through (r) of this section, and in addition, shall have:
- (a) A minimum three thousand pound manufacturer's lift rated and minimum seven thousand pound tow rated wheel lift assembly.
- (b) One winch and drum with one hundred feet of three-eighths inch cable meeting class "A" requirements.

Note: One snatch block is sufficient.

- (5) CLASS "E" TOW TRUCKS: Trucks that are primarily designed and intended to transport other vehicles by loading the vehicle entirely onto the truck. These trucks may be of a flatbed, "slide back" or "tilt bed," design or may be a "rail" type truck. Class "E" trucks must meet the requirements of subsection (1)(a) through (l) of this section, and in addition, shall have:
- (a) Two securing devices with a minimum breaking strength of fifteen thousand pounds. The devices may be chain, cable, nylon strap, or steel strap. The tie downs shall be passed over the axle or frame member (one in front and one in rear) of the transported vehicle. Both ends shall be attached to the truck bed or rail in a manner that will prevent movement of the transported vehicle. Factory style "T" hook tie-downs may also be used (front and rear).
  - (b) One snatch block.
  - (c) Dual tires on rear axles.

Note: All tires must be of sufficient size to meet the requirements of RCW 46.44.042 under all loading conditions.

- (d) If used in a towing mode (as opposed to carrying), a sling, tow bar, and/or wheel lift assembly as appropriate for gross vehicle weight of the towed vehicle.
  - (e) Additional minimum requirements include:

A. Gross vehicle weight rating	14,500 lbs
B. Purchased tonnage	14,500 lbs
C. Winch rating	4 ton
D. Cable	50', 3/8 6x19 Hemp
	Center, I.P.S. work
	limit 3,500 lbs 5–1
	safe working load
E. Cable hook connections	3 ton
F. Car carrier (bed)	17'
G. Body load rating (bed)	4 ton
H. Tow bar load rating	2,000 lbs

Note: Trucks of class "E" configuration that were inspected and approved for use prior to the adoption of these specifications and that do not meet them may continue to be used for patrol calls until January 1, 1992: *Provided*, That they do continue to meet the original specifications required and are otherwise in safe operating condition.

(6) CLASS "S" TOW/RECOVERY TRUCKS: Tow/recovery trucks that cannot meet the requirements of class

"A," "B," "C," "D," or "E" and are not eligible for appropriate waiver as outlined in WAC 204-91A-070(4), may be approved as class "S" (special).

To have a truck designated as class "S" the tow operator must submit a request for approval through the district commander to the ESR. The written request shall indicate why the truck is needed, what it will be used for, its size, purchased tonnage (if appropriate), capability, and the equipment carried or used with the truck.

If the district commander approves the request, he/she will forward the approved written request with recommendations for equipment and/or operation instructions or limitations to the ESR for review and final approval. If approval is granted, the equipment shall be inspected as outlined in WAC 204-91A-040 with reports forwarded in the normal manner.

Note: If the provisions of this section require a change in classification for a previously approved tow truck, such change may be made upon the next annual reinspection. In any case, all tow trucks shall be correctly classified within one year of adoption of these rules.

[Statutory Authority: RCW 46.35.005 [46.37.005]. 89–14–015 (Order 89–04–ESR), § 204–91A–170, filed 6/23/89.]

WAC 204-91A-180 Vehicle towing/operator qualifications, restrictions, and requirements. In addition to the requirements contained in WAC 204-91A-170, tow truck operators appointed pursuant to this chapter shall conform to all laws and administrative rules pertaining to the tow industry and shall observe the following practices and procedures:

- (1) When called by the patrol, the tow truck operator will dispatch a tow truck, from within the assigned zone, within five minutes during normal business hours.
- (2) Tow trucks dispatched at the request of the patrol after normal business hours will be on the move within the assigned zone within fifteen minutes after receiving the call.
- (3) The tow truck that is dispatched will arrive at the stated location within a reasonable time considering distance, traffic, and weather conditions.
- (4) If for any reason a tow operator is unable to dispatch a tow truck within the stated time or if the dispatched truck will be delayed for any reason, the operator shall so advise the patrol stating the reason and estimated time of arrival. In the event the tow truck fails to arrive at the scene within a reasonable time, the patrol will contact another tow operator to respond to the scene and will cancel the original tow.
- (5) A tow operator on rotation who is unable to dispatch or arrive within the times stated in subsections (1), (2), (3), and (4) of this section will forfeit his turn and be placed at the bottom of the rotation list as if he had responded.
- (6) Consistent refusal or failure of the appointee to respond to calls from the patrol for towing services and/or to provide the requested services may result in the suspension or revocation of the tow operator's letter of appointment.
- (7) The tow operator shall advise the appropriate patrol office when the tow company is temporarily unavailable to respond to rotational calls with a class "A,"

"B," or "C" tow truck. Unavailability may occur due to conditions such as, but not limited to, other tow truck commitments, tow truck disabled and/or under repair, unforeseen driver shortage due to illness, etc. The period of unavailability may last less than an hour or much longer. The tow operator will give the reason for unavailability and approximately when the company will be available to respond to calls.

The tow company will be removed from the rotational list and will not be called until the operator advises the patrol that the company is once again able to respond to calls with an "A," "B," or "C" class truck. In all such cases, the tow company will resume its normal position on the rotational list without regard to any missed calls or its position prior to being unavailable.

- (8) The tow operator will advise the patrol whenever a private call is received for a tow with circumstances that indicate that the tow is for a vehicle which has been involved in an accident, incident, or equipment breakdown on the public roadway. The tow operator also will advise the patrol of all private calls to motor vehicle accidents on private property resulting in bodily injury or death.
- (9) The tow operator will notify the patrol before moving any vehicle involved in an accident on a public highway under the jurisdiction of the patrol as defined in the motor vehicle code, Title 46 RCW, or where it appears that the driver of the vehicle to be moved is under the influence of intoxicants or drugs, or is otherwise incapacitated.
- (10) When the patrol is in charge of an accident scene or other such incident, a tow operator shall not respond to such scene unless his services have been specifically requested by the patrol, the driver/owner, or his agent.
- (11) The tow operator shall be available, or will ensure that specific employees are available, twenty-four hours a day for the purpose of receiving calls or arranging for the release of vehicles. Business hours will be posted conspicuously at the operator's place of business so they can be seen during business hours and nonbusiness hours. A copy will also be sent to the ESR and patrol district commander of the district in which the tow operator does business. Changes of business hours will be sent to the department, the ESR, and the patrol district commander ten days before their effective date.
- (12) The tow operator will notify the appropriate patrol office of the release of stored vehicles within five working days after the release of such vehicle. Notification to the patrol will be made in such a manner as prescribed by the ESR commander.
- (13) The operator shall post a current copy of tow and storage rates, on a form approved by the department and the patrol, in the following locations:
- (a) At the entrance to the place of business, in a conspicuous location, plainly visible and readable by members of the public, whether the business is open or closed. If, in order to meet this requirement, the rate sheets must be placed in a location, exposed to the elements, they shall be protected so as to remain legible.
- (b) Inside the business location, where business is commonly transacted. The rate sheets shall be posted in

- such manner as to be cleary and plainly visible and readable at all times by customers of the business.
- (c) A copy of the current rates will be sent to the department, the ESR, and the patrol district commander of the district in which the tow operator has applied for a letter of appointment. Notice of any change(s) in service rates will be forwarded to the department, the ESR, and the district commander of the area ten days before the effective date of the changes. Charges made for towing services arising from calls initiated by the patrol shall be consistent with current posted towing rates and shall be based only upon services listed on the prescribed form.
- (d) In the event that an operator has only a class "B" truck and utilizes it for class "A" and "B" type tows, the operator shall file a rate sheet that specifies the rates charged for the different types of tows.

Whenever any operator utilizes a larger truck than the towed vehicle warrants, the operator shall charge fees based on the size of the towed vehicle not the size of the truck used.

EXAMPLE: A class "C" truck is used, at the operator's discretion, to tow a class "B" size vehicle. The fees charged shall be those for a class "B" truck NOT a class "C."

- (14) Charges made for towing services arising from calls initiated by the patrol shall not exceed the maximum rates established by the chief.
- (15) Unless other arrangements are made with commissioned patrol personnel at the scene, all impounded vehicles shall be taken to the tow operators nearest approved storage location.
- (16) The tow operator will maintain, for three years, records on towed and released vehicles which were towed at the request of the patrol. This record will include, but not be limited to:
- (a) An itemized receipt of all charges for the services provided.
- (b) An inventory sheet or copy thereof made out by the trooper at the scene of the tow and signed by the operator.
  - (c) All other records required by the department.

Such records will be available for inspection by the patrol during normal business hours at the operator's place of business.

- (17) The tow operator will sign an inventory sheet made out by the patrol officer at the scene.
- (18) Tow operators will obtain and maintain current registration as a licensed tow truck operator pursuant to RCW 46.55.020.
- (19) Tow operators shall perform towing tasks competently. The standard of competence shall be that quality of work which is accepted as efficient and effective within the towing industry.
- (20) No tow operator, employee, or agent shall misappropriate, wrongfully convert to his/her own use, or abuse property belonging to another and entrusted to his/her care or storage.
- (21) Tow truck operators will use emergency lights to warn other motorists only when at the scene of accidents, disabled vehicles, and/or recoveries. Such lighting shall not be used when traveling to or from the scene.

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- (22) Tow truck operators shall be responsible for cleaning accident/incident scenes of all vehicle glass and debris.
- (23) Specific operating restrictions and/or requirements, by truck class, are as follows:
- (a) The standard air brake release tools (caging stud assemblies) required to be carried in the class "B" and "C" trucks shall be used, whenever necessary, to preserve potential evidence involving brake equipment or adjustment settings. When an operator is attempting to move a vehicle equipped with locked spring parking brakes that cannot be released by external air supply, the caging assemblies shall be used to release the brake tension. Under no circumstances shall the towed vehicle's brake assemblies or adjustments be moved or disturbed in any way that will prevent later determination of the preaccident or incident settings.
- (b) Class "B" trucks in excess of twenty-three thousand pounds gross vehicle weight rating need not carry dollies when towing or recovering heavy vehicles.
- (c) Class "D," "E," and "S" trucks shall not be used to respond to initial calls unless specifically authorized by patrol personnel at the scene or by local written policy approved by the district commander.
  - (d) Class "E" trucks shall:
- (i) Have, when used for multiple vehicle towing/recovery (one on bed, one in tow) from the same location, all invoice charges evenly divided between the vehicles so transported;
- (ii) Not be operated in excess of either gross vehicle weight rating or purchased tonnage weight limits;
- (iii) Be required to carry its portable lights only when used in a towing mode.
- (24) Whenever a "special event or overflow" storage lot is approved by the department, the patrol and appropriate city/county jurisdictions, the operator shall maintain personnel at the lot twenty-four hours per day for security and vehicle and/or personal property release. If necessary, reimbursement for such labor shall be part of the contract for the "special event" if appropriate or by amended storage rates with a waiver of the ten-day rate change notice requirement approved by the department and the patrol.

At the conclusion of a "special event or overflow" situation, all vehicles not reclaimed by the owner shall be towed to the operator's regular storage facility and processed in the normal fashion. No additional fee shall be charged for towing the vehicle from the overflow lot to the regular facility.

- (25) All work performed by the operator and/or employee shall be in the most professional and expeditious manner. All invoices and other required forms shall be completed accurately and promptly.
- (26) Tow operators shall, when required by the patrol or the department, cause to be displayed on each approved truck, decals indicating truck class, patrol district, and/or assigned tow zone.

[Statutory Authority: RCW 46.61.567. 89-21-044, § 204-91A-180, filed 10/13/89, effective 11/13/89. Statutory Authority: RCW 46.35.005 [46.37.005]. 89-14-015 (Order 89-04-ESR), § 204-91A-180, filed 6/23/89.]

## Chapter 204-92 WAC WHEELCHAIR CONVEYANCES

204-92-010	Promulgation.
204-92-020	Purpose.
204-92-030	Definition.
204-92-040	Minimum speed requirements.
204-92-050	Equipment requirements on wheelchair conveyance

WAC 204-92-010 Promulgation. By authority of chapter 200, Washington session laws of 1983, and RCW 46.37.005, the state commission on equipment hereby adopts the following regulations relating to a speed range and safety standards of wheelchair conveyances.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83-21-080 (Order 83-10-01), § 204-92-010, filed 10/19/83.]

WAC 204-92-020 Purpose. The purpose of this regulation is to ensure the safety and protection of the motoring public and those persons engaged in operating a wheelchair conveyance upon a public roadway.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83-21-080 (Order 83-10-01), § 204-92-020, filed 10/19/83.]

WAC 204-92-030 Definition. "Wheelchair conveyance" means any vehicle specially manufactured or designed for transportation of a physically or medically impaired person who is either wheelchair-bound or otherwise walking impaired. The vehicle may be a separate vehicle used in lieu of a wheelchair or a vehicle used for transporting the impaired person who is simultaneously occupying a wheelchair.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83-21-080 (Order 83-10-01), § 204-93-030, filed 10/19/83.]

WAC 204-92-040 Minimum speed requirements. The wheelchair conveyance shall be equipped with a propulsion device capable of propelling the vehicle at a minimum speed of twenty miles per hour on level ground. The commission may approve and define as a wheelchair conveyance, a vehicle that fails to meet these specific criteria but is essentially similar in performance and application to vehicles that do meet these specific criteria.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83-21-080 (Order 83-10-01), § 204-92-040, filed 10/19/83.]

- WAC 204-92-050 Equipment requirements on wheelchair conveyances. (1) Every wheelchair conveyance that is designed to travel on four wheels in contact with the ground shall comply with the provisions of chapter 46.37 RCW as they pertain to motor vehicle equipment.
- (2) Every wheelchair conveyance that is designed to travel on not more than three wheels in contact with the ground shall comply with the equipment requirements for motorcycles, motor-driven cycles, and mopeds contained in chapters 46.37 and 46.61 RCW: Provided, That all wheelchair conveyances shall be equipped with

two rear view mirrors and turn signals as defined in RCW 46.37.400 and 46.37.200.

(3) The commission on equipment may grant exceptions to equipment requirements upon a determination that the safety of the motoring public and the occupants of wheel chair conveyances has been considered.

[Statutory Authority: 1983 c 200 and 1983 c 215. 83-21-080 (Order 83-10-01), § 204-92-050, filed 10/19/83.]

## Chapter 204–93 WAC ASSISTANCE VANS

WAC	
204-93-010	Authority.
204-93-020	Purpose.
204-93-030	Definitions.
204-93-040	Driver standards.
204-93-050	Van standards.
20493060	Two-way communications requirements.
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204-93-080	Insurance requirements.
20493090	Application for letter of appointment.
204-93-100	Inspections and approval decals.
204-93-110	Certification.
204-93-120	Free service.
204-93-130	Notification to law enforcement agencies.
204-93-140	Restrictions to van operation and movement on
	highway.
204-93-150	Record of assistance furnished.
204-93-160	Driver's clothing.

### WAC 204-93-010 Authority. This rule is promulgated pursuant to RCW 47.52.120 and 46.37.005.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–010, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–010, filed 10/1/85.]

WAC 204-93-020 Purpose. The purpose of this regulation is to provide minimum standards and operating regulations for assistance vans.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–020, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52-.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–020, filed 10/1/85.]

- WAC 204-93-030 Definitions. (1) Assistance van: A vehicle that has been approved by the state patrol to provide aid, free of charge, to vehicles with equipment or fuel problems. An assistance van will be referred to as "van" in this regulation.
- (2) ESR: Equipment and standards review section of the Washington state patrol.
- (3) Patrol: Shall mean the Washington state patrol as defined in RCW 43.43.010.
- (4) District commander: Shall mean the commanding officer of a Washington state patrol district.
- (5) Inspector: Shall mean a commissioned officer of the Washington state patrol who has been designated by his/her district commander to conduct inspections of assistance vans.
- (6) Owner: Shall mean the legal owner of the assistance van.

- (7) Operator: Shall mean the person(s) or firm so named in the letter of appointment, who operates the assistance van.
- (8) Driver: Shall mean the person who drives the van and furnishes the actual service.
- (9) Highway: Means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.
- (10) Letter of appointment: Shall mean the document issued by the ESR that authorizes the assistance van to operate within this state.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–030, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–030, filed 10/1/85.]

WAC 204-93-040 Driver standards. (1) The driver's minimum age is to be 21 years.

- (2) Driver shall possess a valid first aid card.
- (3) Driver shall possess a valid Washington operator's license.
- (4) Driver shall not have a previous felony conviction and shall agree to submit to a no fee criminal background investigation by the patrol by submitting a completed fingerprint card with the required application.

[Statutory Authority: RCW 47.52.120. 90–18–049, 204–93–040, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), 204–93–040, filed 20/1/85.]

- WAC 204-93-050 Van standards. (1) The minimum size vehicles shall be a half-ton rated van or pickup truck.
- (2) The van shall be equipped with adequate front pushbars of a design that protects the finish of any vehicle being pushed.
  - (3) The van shall not have towing capabilities.
- (4) The primary sponsor or operator's name, address, and telephone number shall be painted on both sides of the vehicle in a contrasting color. The lettering shall be at least 3 inches in height with a 3/4 inch stroke. Other sponsors may be shown in smaller lettering.
- (5) The words "assistance van" shall be painted on the front and rear of the van. The size of the lettering shall be the same as the primary sponsor's or operator's name.
- (6) The van shall have the capability to jump start another vehicle without going the wrong direction on the highway.
  - (7) The van shall have the ability to transfer fuel.
- (8) The van shall be maintained in a clean and neat manner.
- (9) The van shall be equipped with an approved light bar that displays amber lighting in a 360° radius. The amber lights shall be used only at the scene of a disabled vehicle or when a disabled vehicle is being pushed from the travel lane to the nearest shoulder of the highway.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–050, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–050, filed 10/1/85.]

- WAC 204-93-060 Two-way communications requirements. The van shall have:
- (1) The capability to monitor channel 9 of the citizen's band radio.
- (2) Two-way mobile communications with a base station. A CB radio is not adequate for this communication. A mobile telephone system is acceptable if:
- (a) The equipment is of a recognized and established manufacture and is properly installed.
- (b) The equipment is in proper working order and functions correctly throughout the assigned area of operation.
- (c) The equipment does not utilize the truck horn or a siren or other sound device to signal incoming calls.
- (d) The equipment is used in a correct and lawful manner.
  - (3) A public address system.

Note: Communication headsets shall not be used while the van is in motion.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–060, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–060, filed 10/1/85.]

WAC 204-93-070 Equipment requirements. The van shall be equipped with the following items:

- (1) Floor jack -2-1/2 ton rating.
- (2) Portable tank of compressed air with a minimum capacity of 100 pounds of compressed air.
  - (3) One 36 unit first aid kit or larger.
- (4) One 20 BC rated fire extinguisher or two 10 BC rated fire extinguishers.
  - (5) Mechanics tools for minor repairs.
  - (6) Five-gallon container of water.
  - (7) Six red traffic cones.
  - (8) One case of 20-minute fuses.

[Statutory Authority: RCW 47.52.120. 90–18–049, \$ 204–93–070, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), \$ 204–93–070, filed 10/1/85.]

- WAC 204-93-080 Insurance requirements. Each van shall be covered with the following minimum insurance coverage:
- (1) One hundred thousand dollars of legal liability per occurrence to protect against vehicle damage.
- (2) Two hundred fifty thousand dollars for liability for bodily injury or property damage per occurrence.
- (3) Proof of insurance shall be filed with the ESR section of the patrol. Failure to maintain the required coverage shall result in immediate cancellation of the letter of appointment by the state patrol.

[Statutory Authority: RCW 47.52.120. 90-18-049, § 204-93-080, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85-20-090 (Order 002-85), § 204-93-080, filed 10/1/85.]

WAC 204-93-090 Application for letter of appointment. (1) An application for a letter of appointment to operate an assistance van shall be filed with the ESR on a form prescribed and furnished by the state patrol.

- (2) The application shall include a completed fingerprint card for the applicant and each person who operates and/or drives the van.
- (3) The application will be assigned a docket number which shall be its permanent identification number for all matters relating to appointments.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–090, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–090, filed 10/1/85.]

- WAC 204-93-100 Inspections and approval decals. Upon receipt of an application for a letter of appointment, the patrol will conduct an inspection of the applicant's van, to determine if the applicant qualifies for the issuance of a letter of appointment.
- (1) After a letter of appointment has been issued, the state patrol will cause to be affixed to each qualified van a window decal indicating that it has been approved by the state patrol.

The decal will be furnished by the state patrol and affixed to the windshield on the lower right hand corner by the inspector.

- (2) Reinspections of approved vans will be conducted at least once a year.
- (a) Upon subsequent inspections, the inspector may remove the decal from the van if it is no longer found to be qualified, subject to the following procedures:
- (i) In the event of a safety-related defect which would render the van a safety hazard upon the public highway, the decal may be removed immediately by the inspector. Upon a protest by the operator that the defect does not represent a safety hazard, the decal may not be removed until such time as the defect is verified as a safety hazard by the inspector's supervisor.
- (ii) In the event of missing or defective equipment which is not a safety hazard but is required for initial approval, the inspector shall issue a correction notice for the defect. If after ten days the operator fails or refuses to repair the defect, the decal may be removed.
- (iii) Upon repair of a defect which has previously caused removal of a decal, the inspector shall reinspect the equipment which had been defective. If the specified corrections have been satisfactorily completed, the inspector shall reapply another decal to the windshield. In the event that the inspector is not readily available to reinspect and reapply the decal, such other patrol officer as may be appointed by the patrol may reinspect and reapply the decal. The reinspection and reapplication shall be done as soon as possible after the operator advises that the defect has been repaired.
- (b) Upon termination of a letter of appointment, the decal will be immediately removed and the letter of appointment retrieved by the state patrol.
- (c) Upon sale or other transfer of the van from the business, the operator shall so advise the ESR and shall remove the decal prior to the sale or transfer of the vehicle.
- (d) Upon the purchase or acquisition of any additional van to be used pursuant to this chapter, the operator

shall immediately notify the ESR and request an inspection of the new unit by the patrol.

[Statutory Authority: RCW 47.52.120. 90–18–049, 204–93–100, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52-120 and 46.37.005. 85–20–090 (Order 002–85), 204–93–100, filed 10/1/85.]

WAC 204-93-110 Certification. After inspection of the van, driver qualifications, and required equipment, the inspecting officer will certify one of the following:

(1) The van operation of the applicant fully conforms to the requirements established by this rule.

(2) The van operation of the applicant does not fully conform to the requirements. The deficiencies shall be listed on the inspection form. The operator will be informed of the deficiencies by the inspector. The operator may reapply to the inspector or the ESR when he/she has corrected the deficient areas and request another inspection.

Upon certification of compliance by the inspector and after all other requirements of this regulation have been met, the ESR will issue a letter of appointment to the applicant.

A copy of the current letter of appointment shall be posted in the place of business of the applicant.

Failure of the operator to comply with any of the various regulations in this chapter may result in cancellation of the operator's letter of appointment by the ESR.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–110, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–110, filed 10/1/85.]

WAC 204-93-120 Free service. All services provided to a disabled motorist at the location of the disablement shall be free. This will include any vehicle repair parts that may be furnished by the operator.

[Statutory Authority: RCW 47.52.120 and 46.37.005. 85-20-090 (Order 002-85), § 204-93-120, filed 10/1/85.]

WAC 204-93-130 Notification to law enforcement agencies. The appropriate law enforcement agency will be notified under the following circumstances:

- (1) Motor vehicle accidents
- (2) Ill or incapacitated motorists
- (3) Intoxicated motorists
- (4) If a disabled vehicle is to be left on the highway shoulder and the driver is to be transported away from the scene.

[Statutory Authority: RCW 47.52.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–130, filed 10/1/85.]

WAC 204-93-140 Restrictions to van operation and movement on highway. (1) No traveling in high-occupancy vehicle lane unless responding to a disabled vehicle.

- (2) No wrong direction travel on highway or on/off ramps of highway.
- (3) A disabled vehicle will be pushed only to the nearest highway shoulder area.
- (4) Disabled vehicles will not be towed for any distance.

- (5) All "rules of the road" as defined by RCW 46.61 shall be obeyed with the exception of RCW 46.61.570 and 46.61.575 as they relate to stopping, standing, or parking restrictions on public highways.
- (6) RCW 47.52.120 shall be obeyed, except section (5) as it relates to the stopping or parking of a vehicle on a limited access highway facility.

[Statutory Authority: RCW 47.52.120 and 46.37.005. 85-20-090 (Order 002-85), § 204-93-140, filed 10/1/85.]

WAC 204-93-150 Record of assistance furnished. Each van operator shall maintain a permanent daily log or record of all assistance furnished to disabled motorists. These records shall be made available to the inspector or ESR upon request. This record shall include, but is not limited to, the following items:

- (1) Van driver's name
- (2) Location and time of assistance
- (3) Vehicle license number of vehicle assisted
- (4) Type of assistance given
- (5) Date and time of day that van is placed in service and taken out of service.

[Statutory Authority: RCW 47.52.120. 90–18–049, § 204–93–150, filed 8/30/90, effective 9/30/90. Statutory Authority: RCW 47.52-.120 and 46.37.005. 85–20–090 (Order 002–85), § 204–93–150, filed 10/1/85.]

WAC 204-93-160 Driver's clothing. The van driver will wear clothing that identifies the operator or primary sponsor.

- (1) The driver will wear a legible name tag.
- (2) Clothing will be maintained in presentable and clean manner.

[Statutory Authority: RCW 47.52.120 and 46.37.005. 85-20-090 (Order 002-85), § 204-93-160, filed 10/1/85.]

## Chapter 204–94 WAC REFLECTORIZED WARNING DEVICES

WAC 204-94-010 Authority. 204-94-020 Purpose.

204-94-020 Purpose. 204-94-030 Definition.

204-94-040 Standards for reflectorized warning devices. Placement of reflectorized warning devices.

WAC 204-94-010 Authority. This chapter is promulgated pursuant to RCW 46.37.450 and chapter 119, Laws of 1984, and is intended to administratively implement that statute.

[Statutory Authority: RCW 46.37.450 and 46.37.005. 85–20–091 (Order 004–85),  $\S$  204–94–010, filed 10/1/85.]

WAC 204-94-020 Purpose. Law enforcement personnel are required to place a reflectorized warning device on or near any motor vehicle (trucks, buses, and trailers over eighty inches in overall width excluded) which has become disabled along the highway or shoulder of the road outside any municipality at a time when lights are required on the vehicle. State and local governments and their employees are relieved from civil liability in the implementation of this section.

[Statutory Authority: RCW 46.37.450 and 46.37.005. 85-20-091 (Order 004-85), § 204-94-020, filed 10/1/85.]

WAC 204-94-030 Definition. "Reflectorized warning device" means any device defined in RCW 46.37.450 or any device composed of a reflective sheeting material which consists of spherical lens elements embedded with a transparent plastic having a smooth, flat outer surface. The sheeting shall be weather resistant and have a protected, low tac, precoated adhesive backing.

[Statutory Authority: RCW 46.37.450 and 46.37.005. 85–20–091 (Order 004–85), § 204–94–030, filed 10/1/85.]

. WAC 204-94-040 Standards for reflectorized warning devices. Reflectorized warning devices used by law enforcement shall conform to those devices described in RCW 46.37.450 and requirements of the Washington state department of transportation standard specifications for road, bridge, and municipal construction, Section 9-28.6, "Enclosed lens reflective sheeting." These specifications are available through the State Commission on Equipment, General Administration Building AX-12, Olympia, Washington 98504, or the Department of Transportation, Transportation Building, Olympia, Washington 98504.

[Statutory Authority: RCW 46.37.450 and 46.37.005. 85-20-091 (Order 004-85), § 204-94-040, filed 10/1/85.]

WAC 204-94-050 Placement of reflectorized warning devices. Whenever any vehicle is disabled upon the traveled portion of any highway or shoulder thereof outside any municipality, at any time when lights are required by RCW 46.04.200, upon discovery of such disabled vehicle by law enforcement, a reflectorized device such as those defined in RCW 46.37.450 or WAC 204-94-030 shall be placed on the vehicle.

[Statutory Authority: RCW 46.37.450 and 46.37.005. 85–20–091 (Order 004–85),  $\S$  204–94–050, filed 10/1/85.]