

# ROADS, FLAGGING, VEHICLES AND FLAMMABLES

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## **437-007-0500 Roads.**

- (1)** Haul roads must be of sufficient width and evenness for safe operation of vehicles and machines.
- (2)** Haul roads and bridges must be constructed and maintained to accommodate the safe movement of vehicles and machines.
- (3)** Vehicles and machines must not be moved on any access roadway or grade that will not accommodate the safe movement of vehicles and machines.
- (4)** When haul road grades exceed 20 percent slope:
  - (a)** The vehicle or machine must be approved by the manufacturer for operation on the steeper grades.
  - (b)** Additional precautions must be taken, such as assisting or snubbing the vehicle or machine down the slope.
- (5)** Deep holes, large rocks, logs, or other dangerous surface defects on roads must be corrected before starting logging operations.
- (6)** On those portions of roads under the direct control of the employer:
  - (a)** All danger trees that can fall or slide onto roadways must be felled.
  - (b)** Loose rocks, stumps and other materials which present a hazard must be secured or cleared from banks.
- (7)** Root wads, logs, and other unstable debris must not be placed against standing timber in a manner that creates a hazard for timber falling, logging operations or other forest activities.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0505 Bridges.**

(1) All bridge structures and surfaces must be:

- (a) Adequate to support the maximum imposed loads.
- (b) Maintained in good repair.

(2) All bridges must have rub rails constructed of wood, concrete or equivalent materials that:

- (a) Have a minimum height of 9 inches (6-inch by 6-inch timbers set on 4-inch by 6-inch blocks).
- (b) Are secured to the bridge deck.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0510 Flagging.**

(1) Warning signs and a flagger(s) must be placed in advance of active operations, or other equivalent protection must be used on roads to control traffic where hazardous conditions are created from forest activities, such as, but not limited to:

- (a) Skylines and running lines or rigging across road grades, excluding tightened guylines.
- (b) The movement of logs, chunks or debris across or suspended over road grades.
- (c) Timber cutting operations.
- (d) Helicopter logging operations.

**NOTE:** Where there is no through traffic, such as on a dead end road or where the property owner's permission or proper authority is granted to close a section of road, warning signs and barricades may be used instead of flagger(s).

(2) Flaggers must wear vests of a high-visibility color and use a minimum 18-inch x 18-inch "STOP/SLOW" paddle to control traffic.

(3) Warning signs and flagging activities along state and county roads must comply with the requirements of the Millennium Edition of the (FHWA) Manual of Uniform Traffic Control Devices (MUTCD), December 2000.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

## 437-007-0515 Signs.

(1) Warning signs must be prominently displayed a minimum of 300 feet in advance of forest activities which create hazardous conditions for road traffic.

(2) Warning signs must be removed or covered when forest activity operations are interrupted for an extended period.

(3) Warning signs must be worded to describe the hazard, type of operation or action to be taken.

**NOTE: Samples of operation specific sign wording:**

Lines Across Road

Contact Operator On Channel \_\_\_\_\_

Stop Do Not Proceed Without Contacting

\_\_\_\_\_

Timber Falling Ahead

Blasting

Logging Operations Ahead

Heavy Truck Traffic

CB Channel \_\_\_\_\_

(4) Warning signs must:

(a) Be a minimum dimension of 24-inch x 24-inch diamond.

(b) Have an orange background.

(c) Have 4-inch black letters.

(5) When stop signs are used they must:

(a) Be eight sided.

(b) Have a minimum height and width of 24 inches.

(c) Have a red background with 6-inch white letters for the "STOP" side.

(6) The "STOP/SLOW" paddle must:

(a) Be eight sided.

- (b) Have a minimum height and width of 18 inches.
- (c) Have a red background with 6-inch white letters for the “STOP” side.
- (d) Have an orange background with 6-inch black letters for the “SLOW” side.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**VEHICLE GENERAL REQUIREMENTS /  
VEHICLE WARNING DEVICES /  
VEHICLE WINDSHIELDS,  
WINDOWS & MIRRORS**

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**437-007-0520 Vehicle General Requirements.**

- (1) A positive engine shut-off must be provided within reach of the operator when in normal operating position.
- (2) Vehicles must be equipped with adequate steps, ladders, handholds, or grab bars to provide safe access and egress.
- (3) Steps must be constructed or treated with slip-resistant materials.
- (4) Vehicle seats must be securely fastened.
- (5) Doors must open easily.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0525 Vehicle Warning Devices.** All vehicles must be equipped with a horn or audible warning device which can be clearly heard above the surrounding noise in the vicinity of the vehicle.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0530 Vehicle Windshields, Windows and Mirrors.**

- (1) Vehicle windshields must be equipped with powered wipers.
- (2) Vehicles must be equipped with operable windshield defogging or defrosting equipment.
- (3) Defective or broken glass in a vehicle which impairs the vision of the operator or could cause injury to occupants of a vehicle must be replaced.
- (4) Deposits on glass which impair the vision of the operator must be removed.
- (5) Windshield and windows installed on vehicles must be safety glass which meets the requirements for safety glazing material used in motor vehicles, as defined in the American National Standards Institute, Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways, Z26.1-1996, or a material which will furnish equivalent safety.

**F****VEHICLE WINDSHIELDS, WINDOWS &  
MIRRORS / VEHICLE PASSENGER  
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(6) Vehicles must be equipped with an adjustable sun visor.

(7) Vehicles must be equipped with outside-mounted rear view mirrors on each side when the load or passengers obstruct the use of the rear view mirror located in the cab.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0535 Vehicle Passenger Compartments.**

(1) Floors and decks must be suitable for safe footing.

(2) All openings between enclosed passenger compartments and engine or exhaust from which fumes or gases may enter must be effectively sealed.

(3) Enclosed passenger compartments must be reasonably dust-proof and watertight.

(4) Floors and interior surfaces of passenger compartments must be free of protruding nails, screws, splinters or other objects which might cause injury.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0540 Vehicle Brakes.**

(1) All vehicles must have brakes which are capable of stopping the vehicle while fully loaded on any grade over which they are to be operated.

(2) All vehicles must have a parking brake that will hold the loaded vehicle on any grade which it is operated.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0545 Vehicle Exhaust Systems.**

- (1) Vehicles must have an exhaust system that is maintained in good repair.
- (2) Vehicles must be equipped with a muffler of the type recommended by the vehicle manufacturer.
- (3) Exhaust pipes must be located to direct the exhaust gases away from the operator and any passengers.
- (4) Any exhaust pipe which is exposed to contact must be insulated or isolated to protect workers from contact burns.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).  
**Stats. Implemented:** ORS 654.001 through 654.295.  
**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0550 Vehicle Guards and Controls.**

- (1) Vehicles with dump bodies must be equipped with a permanently attached, positive means of support that is capable of being secured in position to prevent the accidental lowering of the dump body.
- (2) Devices for supporting dump bodies must be used when:
  - (a) The dump body is raised and left unattended.
  - (b) Maintenance or inspection work is being done.
- (3) Operating levers controlling hoisting or dumping devices on haulage bodies must be equipped with a latch or other device which will prevent accidental starting or tripping of the mechanism.
- (4) Trip handles for tailgates and belly dump trailers must be located so personnel are in the clear when dumping.
- (5) All vehicles whose payload is loaded by means of cranes, power shovels, loaders or similar equipment must have a cab shield or canopy adequate to protect the operator from shifting or falling materials.
- (6) The backs of vehicle cabs which are exposed to shifting loads must be provided with a substantial bulkhead or similar device.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).  
**Stats. Implemented:** ORS 654.001 through 654.295.  
**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0555 Vehicle Safety Chains.****(1) Safety chains or cables must:**

- (a)** Have a tensile strength equivalent to the gross weight of the towed vehicle.
- (b)** Prevent the tow bar from dropping to the ground in the event the tow bar or coupling device fails.
- (c)** Be attached in a manner that provides sufficient strength to control the towed vehicle in event the tow bar or coupling device fails.
- (d)** Have no more slack than necessary to permit proper turning.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

**437-007-0560 Vehicle Seat Belts.**

**(1)** All vehicles (except those that were not originally equipped with seat belts) designed or used primarily to transport personnel or material over private or public roads must have seat belts.

**(2) For each vehicle equipped with a seat belt(s), the employer must:**

- (a)** Require all personnel to use seat belts when the vehicle is being operated.
- (b)** Require all personnel to tightly fasten seat belts when the vehicle is being operated.
- (c)** Maintain each seat belt in a serviceable condition.
- (d)** Replace each seat belt which has been removed from any vehicle that was equipped with seat belts at the time of manufacture.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

# VEHICLE INSPECTION, MAINTENANCE & REPAIR / VEHICLE OPERATION

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## **437-007-0565 Vehicle Inspection, Maintenance and Repair.**

**(1)** Vehicles must be checked at the beginning of each shift to assure that they are in safe operating condition.

**NOTE:** Pay particular attention to components such as tires, steering apparatus, lights and reflectors, brakes, boosters, brake hoses and connections, reaches, bunks, stakes, bunk blocks and couplings.

**(2)** Any defects found during inspection, which affect the safe operation of the vehicle, must be corrected before the vehicle is placed in service.

**(3)** Any vehicle which develops defects in parts vital to safe operation during a work shift must be removed from service until necessary repairs are made.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

## **437-007-0570 Vehicle Operation.**

**(1)** Vehicle operators must be knowledgeable of the manufacturer's recommendations for operation, maintenance, safe work practices, and operating procedures.

**(2)** Vehicles must be started and operated only by trained and authorized personnel.

**(3)** Vehicles must not be moved until all personnel, other vehicles and machines are in the clear.

**(4)** Vehicles must not be driven or backed up to anyone standing in between the vehicle and a stationary object.

**(5)** When vehicle operators do not have a clear view of the surface being traveled, they must be guided by a signal person.

**(6)** Any operator who has an obstructed view to the rear of a vehicle must sound an audible warning, that can be heard over the surrounding noise, before backing up unless the:

**(a)** Vehicle is backed up only when an observer signals the driver that it is safe to do so;  
or

**(b)** Operator verifies that nobody is behind the vehicle.

**(7)** When vehicles are parked, the parking brakes must be set before the operator leaves the operator's station.

<b>F</b>	<b>VEHICLE OPERATION / TRANSPORTATION OF PERSONNEL / FLAMMABLE &amp; COMBUSTIBLE LIQUIDS</b>	Oregon Administrative Rules Oregon Occupational Safety and Health Division
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**NOTE:** When it is not feasible to apply or release parking brakes because of freezing conditions, chocking or blocking of the wheels or using other precautions is permissible.

- (8) Vehicles must not be loaded beyond the designed capacity.
- (9) Vehicle loads must be stable, well-balanced and secured.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).  
**Stats. Implemented:** ORS 654.001 through 654.295.  
**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

#### **437-007-0575 Transportation of Personnel.**

- (1) Workers riding in motor vehicles must not stand while the vehicle is in motion.
- (2) Flatbed and dump trucks must not be used to transport workers.
- (3) Passengers must wait for the vehicle to come to a complete stop before boarding or leaving.
- (4) When materials, equipment and tools of any type are transported in the same compartment with workers, the workers and driver must be protected from the hazards of materials, equipment or tools by substantial partitions or the securing of the load.
- (5) Transported materials must not prevent doors of vehicle cabs from being opened.
- (6) Compartments for workers must be kept in a clean and sanitary condition. Workers should assist in maintaining such conditions.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).  
**Stats. Implemented:** ORS 654.001 through 654.295.  
**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

#### **437-007-0580 Flammable and Combustible Liquids.**

- (1) Flammable and combustible liquids must be stored in accordance with OAR 437, 2/H, Hazardous Materials, §1910.106, Flammable and Combustible Liquids.
- (2) Containers of flammable and combustible liquids must be marked in accordance with OAR 437, 2/Z, §1910.1200, Hazard Communication.
- (3) Smoking within 35 feet of vehicles being fueled is prohibited.

## FLAMMABLE & COMBUSTIBLE LIQUIDS

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**(4)** Fueling of vehicles within 35 feet of any open fires, flame or other sources of ignition is prohibited.

**(5)** Vehicle engines, except diesel engines, must be shut off while being fueled.

**(6)** Refilling tanks using liquefied petroleum gases must:

**(a)** Only be done out-of-doors.

**(b)** Not exceed the maximum quantity of fuel recommended by the manufacturer.

**(7)** Tanks, barrels or containers of gasoline, aviation fuels or diesel must not be hauled on vehicles transporting workers except when:

**(a)** Carried in a suitable location outside the driver and passenger compartment or placed in a well-ventilated vapor-proof compartment.

**(b)** Secured to prevent shifting.

**(8)** When fuels are hauled in containers of 5-gallon capacity or less, the container must be approved by a nationally-recognized testing lab, such as Underwriters Laboratory (UL), or Factory Mutual (FM).

**(9)** Vehicles must be kept free of accumulated fuel and combustible liquids which may create a fire or other hazard.

**Stat. Auth.:** ORS 654.025(2) and 656.726(4).

**Stats. Implemented:** ORS 654.001 through 654.295.

**Hist:** OR-OSHA Admin. Order 5-2003, f. 6/02/03, ef. 12/01/03.

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