Oregon OSHA’s guide for Landscaping Contractors and Tree and Shrub Services
This publication provides a partial overview of the best practices for the landscaping industry and is not a substitute for the requirements of the rules. You can find applicable rule requirements in Oregon OSHA's Divisions 1, 2, and 3.
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Introduction

Oregon law requires that anyone in Oregon who advertises, operates as, or uses the title of a landscape contractor or landscape business must be licensed with the Landscape Contractors Board (LCB). Before they can be licensed, contractors must take a comprehensive exam administered by the LCB. The exam includes questions about Oregon OSHA's workplace safety and health rules. This guide acquaints those who plan to take the exam with Oregon OSHA's requirements.

The Oregon Safe Employment Act

The purpose of the Oregon Safe Employment Act is to ensure safe and healthful working conditions for Oregon workers. The Oregon Safe Employment Act says:

“Every employer shall furnish employment and a place of employment that are safe and healthful for employees therein, and shall furnish and use such devices and safeguards and adopt and use such practices, means, methods, operations, and processes as are reasonably necessary to render such employment and place of employment safe and healthful, and shall do every other thing reasonably necessary to protect the life, safety and health of such employees.”

The Oregon Safe Employment Act defines an employee as anybody who works for pay (financial or anything of value) and is under the direction and control of an employer or anybody covered by workers’ compensation insurance as a subject worker under ORS 656.

The Oregon Safe Employment Act defines an employer as any person who has one or more employees, or any sole proprietor or member of a partnership who elects workers’ compensation coverage as a subject worker under ORS 656.128.
Rules for all workplaces

Employers must make a reasonable effort to ensure that employees do the following:

- Work and act in a safe and healthful manner.
- Conduct their work in compliance with all applicable safety and health rules.
- Use all necessary means and methods to safely accomplish work.
- Not remove, displace, damage, or destroy safety devices or guards.

Employers must investigate every employee lost-time injury.

Employers must ensure that their employees receive proper supervision and training.

Use of alcohol or illegal drugs on the job is not permitted; use of prescription drugs or medications that impair an employee’s ability to work safely is also prohibited.

Recordkeeping and reporting

Businesses that had more than 10 employees at any time during the past calendar year must keep Oregon OSHA injury and illness records.

Oregon OSHA’s forms for recording and reporting workplace injuries and illnesses include the OSHA 300, 300-A, and DCBS Form 801.

- The OSHA 300 form is the Log of Work-Related Injuries and Illnesses.
- The OSHA 300-A is the Summary of Work-Related Injuries and Illnesses. Post the OSHA 300-A each Feb. 1 and keep it posted until April 30.
- The DCBS Form 801 is the Workers and Employers Report of Occupational Injury or Disease.

Keep the OSHA 300 Log, OSHA 300-A, and the DCBS Form 801 for five years following the end of the calendar year that they cover.

Report fatalities and catastrophes to Oregon OSHA within eight hours. Report work-related injuries or illnesses that cause the loss of an eye, an amputation or avulsion that includes bone or cartilage loss, and in-patient hospitalization for medical treatment (other than first aid) to Oregon OSHA within 24 hours.

Call 503-378-3272 or 800-922-2689 (toll-free).

You can find more information on reporting requirements on the Oregon OSHA website, osha.oregon.gov – see Recordkeeping under Topic Index.

Note: Other Oregon OSHA rules may also require written records. Find out about these requirements in the guide, “Put It In Writing: Your guide to Oregon OSHA’s required written materials.” The guide is available on the Oregon OSHA website, osha.oregon.gov, under Publications.
Safety committees

All employers that are either public or private employers operating in Oregon and are subject to Oregon OSHA jurisdiction, must establish and administer an effective safety committee, or conduct effective safety meetings, to communicate and evaluate safety and health issues in the workplace.

Employer options for safety committees or safety meetings are:

<table>
<thead>
<tr>
<th>Do we need a safety committee or safety meetings?</th>
<th>Safety committee</th>
<th>Safety meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have 10 or fewer employees more than half of the year (including seasonal and temporary)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>More than half of your employees report to construction sites</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>More than half of your employees are mobile or move frequently between sites</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Most employees do not regularly work outside an office environment</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>You have more than 10 employees at a location, and none of the above applies</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>You have satellite or auxiliary offices with 10 or fewer employees at a location</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Electrical

- Employers must ensure that electrical equipment is free from hazards that are likely to injure employees.
- The path to ground from circuits and equipment must be permanent and continuous.
- All lights for general illumination must have protection from accidental contact or breakage.
- Temporary lights must not be suspended by their electric cords.
- Flexible cords and cables must be protected from damage.
- Flexible cords and cables may not pass through doorways or other pinch points.
- Extension-cord sets used with portable electric tools and appliances must be the three-wire type and designed for hard or extra-hard use.
- Flexible cords must be used only in continuous lengths without splices or taps.
- There must be strain relief when flexible cords connect to devices and fittings.
- Flexible cords, extension cords, and cables must not be used as substitutes for fixed wiring, run through doorways or windows, be attached to building surfaces, or concealed behind walls or in ceilings or floors.

Ground-fault-circuit interrupters (GFCI)

GFCIs are life-saving devices that protect people from electrocution. Under normal conditions, electrical current moving through a circuit flows at the same rate (amperage) all along the circuit; amperage flowing away from the electrical source should be the same amperage returning to the source. GFCIs sense imbalances or differences along the electrical circuit and shut it down when needed.

Employers must use approved GFCIs with all 125-volt, single-phase, 15-, 20-, and 30-ampere receptacles for temporary power and make them available for use by employees on construction sites. GFCI protection must be at the outlet end of the circuit. Extension cords or other devices with listed GFCI protection identified as portable are acceptable.
Ladders

- Inspect ladders and remove them from service if they are defective.
- There can be no dents, breaks, or bends in the side rails or rungs.
- Portable ladders must have nonslip bases.
- Use ladders only for purposes approved or recommended by the manufacturer.
- Do not load ladders beyond their working load rating.
- Train employees in the safe use of ladders.
- Do not use ladders on boxes, barrels, or other unstable bases.
- Do not use ladders with broken or missing steps, rungs, cleats, or broken side rails.
- A ladder for access to an upper level must extend at least 3 feet above the access point.
- The climber must face the ladder and have free use of both hands when climbing up or down.
- There must be only one person at a time on a ladder unless its labeling says otherwise.
- Do not use stepladders more than 20 feet long.
- Do not climb on the back section of the ladder unless it has steps meant for climbing.
- Do not stand on the top step or top cap of a stepladder.
- Do not use stepladders in freestanding positions when not fully open.
- Ladder repairs must restore the ladder to its original design criteria.
### Flammable liquids (gas, diesel, fuel)

Flammable liquids are divided into categories according to their flashpoints. The following table shows the categories for flammable liquids:

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flash point $&lt; 23°C (73.4°F)$ and initial boiling point $\leq 35°C (95°F)$</td>
</tr>
<tr>
<td>2</td>
<td>Flash point $&lt; 23°C (73.4°F)$ and initial boiling point $&gt; 35°C (95°F)$</td>
</tr>
<tr>
<td>3</td>
<td>Flash point $\geq 23°C (73.4°F)$ and $\leq 60°C (140°F)$</td>
</tr>
<tr>
<td>4</td>
<td>Flash point $&gt; 60°C (140°F)$ and $\leq 93°C (199.4°F)$</td>
</tr>
</tbody>
</table>

Rules for storage of flammables liquids inside buildings vary depending on the category of liquid, the type of building, type of occupancy, protection systems (fire sprinklers), types of containers, and other factors. See 1910.106(d)(2).

### Incidental inside storage

If you store or use flammable or combustible liquids that are incidental* to the work or process, the following quantities apply when the material (opened or unopened) is not in a specially built storage room or cabinet. See (e)(2).

- **Category 1:** 25 total gallons in containers
- **Category 2, 3, or 4:** 120 total gallons in containers
- **Category 2, 3, or 4:** 660 total gallons in a single portable tank

**NOTE:** Check with your local fire authority for their storage requirements.

### Storage Requirements

Table H-12 in 1910.106 specifies maximum allowable sizes for various types of containers. Section 1910.106(d) (2)(iii) has provisions for glass or plastic containers of up to one-gallon capacity for a category 1 or 2 flammable liquid under specified conditions.

<table>
<thead>
<tr>
<th>Container type</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass or approved plastic</td>
<td>1 pint</td>
<td>1 quart</td>
<td>1 gallon</td>
<td>1 gallon</td>
</tr>
<tr>
<td>Metal (other than DOT drums)</td>
<td>1 gallon</td>
<td>5 gallon</td>
<td>5 gallon</td>
<td>5 gallon</td>
</tr>
<tr>
<td>Safety cans</td>
<td>2 gallon</td>
<td>5 gallon</td>
<td>5 gallon</td>
<td>5 gallon</td>
</tr>
<tr>
<td>Metal drums (DOT specifications)</td>
<td>60 gallon</td>
<td>60 gallon</td>
<td>60 gallon</td>
<td>60 gallon</td>
</tr>
<tr>
<td>Approved portable tanks</td>
<td>660 gallon</td>
<td>660 gallon</td>
<td>660 gallon</td>
<td>660 gallon</td>
</tr>
</tbody>
</table>
Fuel containers

Use fuel containers that have been approved by the U.S. Department of Transportation (DOT) or a nationally recognized testing laboratory. They may be either metal or plastic and in quantities of five gallons or less.

Filling fuel containers

• Do not fill any fuel containers while it is inside a vehicle, a vehicle’s trunk, pickup bed, or on any surface other than the ground. This includes pickup trucks, sports utility vehicles, vans, and others.
• Remove the approved fuel container from the vehicle and place it on the ground a safe distance away from the vehicle, other customers, and traffic.
• Keep the nozzle in contact with the can during filling.
• Never use a latch-open device to fill a fuel container.
• Follow all safety procedures, including no smoking.

Inside buildings

Rules for storage of flammables inside buildings vary depending on the class of liquid, the type of building, type of occupancy, protection systems (fire sprinklers), and types of containers.

Vehicle transport

Gasoline and other low-flashpoint liquids carried on Class A, B, and D vehicles that transport workers must be in UL Listed (approved) closed safety fuel containers that have a maximum five-gallon capacity. Containers must be carried in a safe location outside the passenger compartment.

Hazard communication

Employers whose employees use hazardous chemicals must have written hazard communication programs that include the following elements:

• The name of the person responsible for managing the program
• A description of the method used to label hazardous chemical containers
• How the information on the label will be reviewed and updated
• How safety data sheets will be maintained and how employees can review them
• How safety data sheets will be updated
• How employees will be trained about the hazardous chemicals they use
• What information about hazardous chemicals will be included in employee training
Pesticide safety

Employers must provide information to pesticide handlers that describes appropriate personal protective equipment, hazards, mixing and application procedures, and first aid for exposure.

Pesticide labels and safety data sheets include important information such as personal protective equipment requirements, first aid, and proper handling methods.

When the pesticide label uses the words danger or danger-poison and the pesticide is used in concentrated forms such as loading and mixing activities, eyewash facilities are required. These signal words mean that the pesticide is highly toxic. Danger means the pesticide causes irreversible damage to the skin or eyes. Caution means that the product is slightly toxic and causes slight eye or skin irritation. Care should be taken to follow all directions on the label every time a pesticide product is used.

Employers must consider weather conditions such as temperature and wind in determining if it is safe for handlers to apply pesticides.

Employees must promptly clean up spills to avoid future exposures.

Follow emergency eyewash requirements under Division 2/K.
Personal protective equipment (PPE)

Employers must assess their workplaces to determine if there are hazards that require employees to use PPE. They must document, in writing, the date of the assessment and who performed it. Employers must provide their employees with the appropriate PPE and require them to use it. Before they use their PPE, employees must be trained so that they know how to properly use and maintain it.

High-visibility garments

Employees who work where they could be struck by motor vehicles must wear highly visible upper-body garments that contrast with the surroundings so that they stand out. During the evening, employees must wear reflective material visible from all sides for 1,000 feet.

Eye and face protection

Employees must use eye or face protection when they are exposed to flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases, or vapors.

Employees who wear prescription lenses must use eye or face protection that can be worn over the lenses without disturbing the proper position of the lens.

Employees who use lasers must have laser safety goggles that protect them from the specific wavelength of the laser and the laser’s energy.

Respiratory protection

Employers whose employees are exposed to respiratory hazards that cannot be controlled with engineering controls must implement comprehensive written respiratory programs. Programs must include the following:

- Procedures for selecting respirators
- Medical evaluations for employees required to use respirators
- Fit-testing procedures for tight-fitting respirators
- Procedures for proper use of respirators in emergencies
- Procedures and schedules for cleaning, disinfecting, storing, and inspecting respirators
- Training employees in the proper use of respirators, including putting on, removing, and maintaining them

Employers must provide respirators, training, and medical evaluations at no cost to employees.
Head protection
Employees must wear hardhats if they work in areas where they could be struck in the head from falling or flying objects.

Foot protection
Employees must use protective footwear when they work in areas where there is danger of a foot injury.

Hand protection
Employees must use appropriate hand protection when they handle hazardous substances or work with materials that could cause severe cuts, burns, or abrasions.

Fall protection
All employees must be protected from fall hazards when working on unguarded surfaces more than 4 feet above a lower level or at any height above dangerous equipment.

Exceptions to the 4-foot rule:

- Tree workers working from portable ladders more than 10 feet above adjacent ground line must be tied in with an approved type of climbing rope and safety saddle (437-002-0310(1)(a)(A)).

- Employees inspecting, investigating, or assessing workplace conditions or work to be performed prior to the start of work or after all work has been completed. This exemption does not apply when fall protection systems or equipment meeting the requirements of 1910.29 have been installed and are available for workers to use for pre-work and post-work inspections, investigations, or assessments.

- Employees working from scaffolds, motorized vehicles and rolling stock where there is a fall hazard of 10 feet or more to a lower level or at any height above dangerous equipment.

- Employees working from boom supported elevating work platforms (covered by 437-002-2022(2)) at any height.

- Employees working from vehicle-mounted elevating and rotating work platforms (covered by 1910.66(j)) at any height.
**Noise exposure**

Employers whose employees are exposed to noise levels equal to or exceeding an 8 hour Time Weighted Average (TWA) of 85 decibels measured on the A scale (85 dBA), must follow the applicable requirements under Division 2/G, Occupational Noise Exposure.

**Medical services and first aid**

Employers must furnish first-aid supplies for the types of injuries that could occur at their workplaces. First-aid supplies must be stored in unlocked protective containers that are readily accessible to all employees.

Emergency medical services must be available for treating injured employees. If emergency medical services are not near the workplace, a qualified first-aid person must be present.

Tree and shrub services must have personnel able to render cardiopulmonary resuscitation (CPR).

Where employees handle substances that could injure them by getting into their eyes or onto their bodies, provide them with an eyewash, shower, or both based on the hazard.

**Emergency medical plan**

- Employers must have emergency medical plans that ensure medical services are readily available to employees who sustain or develop injuries or illness at the workplaces.
- If a physician or an ambulance with emergency medical technicians is readily available, the plan must include a phone number that will summon the responder; 911 is acceptable in areas where the service is available.
- If medical services are not readily available, the employer must have a plan for responding to serious employee injuries.
Commercial and industrial vehicles

• Employees younger than 18 cannot operate commercial or industrial vehicles.
• Only trained and authorized employees are permitted to operate vehicles.
• Employees are prohibited from operating unsafe vehicles.
• No one but the operator may ride on a vehicle unless there is a safe place for passengers, provided by the manufacturer.
• Employees must not drive vehicles up to anyone standing in front of a stationary object.
• All vehicles that have windshields must have powered wipers.
• Damaged windshields and windows that impair the operator’s view must be replaced.
• All vehicles must have brakes that will control them when they are fully loaded on any grade on which they operate.
• Parking brakes must be capable of holding loaded vehicles on any grade on which they operate that is free of ice or snow.
• All vehicles must be checked at the beginning of each shift to ensure that they are safe and free of apparent damage that could cause failure.
• All vehicles must have an audible warning device that can be clearly heard above surrounding noise.
• Vehicles with obstructed views to the rear must have backup alarms that can be heard above surrounding noise.
Powered industrial trucks (forklifts)

The employer must ensure that each operator is competent to operate a forklift safely by successfully completing forklift training. Employee training must include a combination of formal instruction, practical training, and an evaluation. Operators must be re-evaluated at least once every three years. Refresher training is required only if any of these conditions apply:

• The operator has been observed to operate the vehicle in an unsafe manner.
• The operator has been involved in an accident or near-miss incident.
• The operator has received an evaluation that reveals that the operator is not operating the truck safely.
• The operator is assigned to drive a different type of truck or use new attachments.
• A condition in the workplace changes in a manner that could affect safe operation of the truck.

Employers must certify that each operator received training and evaluation; certification must include the operator’s name, the training date, the evaluation date, the trainer’s name, and the evaluator’s name.

At the beginning of each shift, operators must check all vehicles’ service brakes, including trailer brake connections, hand brakes, emergency stopping brakes, tires, horns, steering, coupling devices, seat belts, operating controls, and safety devices.

Spinner knobs are not permitted on steering wheels unless the steering mechanism prevents road reaction from transmitting to the steering wheel.

No one, other than the operator, is permitted to ride on a powered industrial truck.

Raising employees with a lift truck requires an acceptable personnel platform that is secured to the lift truck, has standard guardrails and a guard to prevent occupants from contacting the lifting mechanism.

Earthmoving equipment

• All earthmoving equipment with roll-over, protective structures (ROPS) must have seat belts (except earthmoving equipment in which the operator stands).
• Equipment with an obstructed view to the rear must have a working back-up alarm that is distinguishable from surrounding noise.
Powered tools

- Stop all fuel-powered tools and allow them to adequately cool down before refueling or servicing them.
- All portable, power-driven circular saws must have guards.
- Crosscut table saws and rip saws must have hood guards, spreaders, and anti-kickback devices.
- Use all tools with shields, guards, and attachments as recommended by the manufacturer.

Chain saws

- Employees who use chain saws must wear chaps or leg protectors that cover the leg from the upper thigh to mid-calf. Leg protectors must be made of material designed to resist cuts.
- Eye or face protection must be used where chips, sawdust, or flying particles present a hazard.
- All power chain saws must meet applicable requirements of ANSI B175.1-1985, Safety Code for Power Chain Saws.
- Inspect saws daily before use and keep them in good repair.
- Do not use saws with cracked or loose handlebars or defective parts.
- Stop chain saw engines before refueling them.
- Chain saws must have an operable chain brake if originally designed and equipped with one.
- Chain brakes and other manufacturer safety features must be maintained in proper working order.
Tree and shrub services

Employers in the tree and shrub service industry must comply with the rules under Division 2/R, 437-002-0301, which sets minimum safety requirements for tree and shrub trimming, pruning, bracing, removal, and surgery. If a specific type of equipment or practice is not limited to the tree and shrub service industry, other divisions of Oregon OSHA's rules apply. The following are some of the requirements of those rules:

First aid

- Employees must be able to provide cardiopulmonary resuscitation (CPR).
- Employees must be trained in tree-top rescue procedures.
- Employers must furnish first-aid supplies for the types of injuries that could occur at their workplaces.
- First-aid supplies must be stored in unlocked protective containers that are readily accessible to all employees.

Traffic control

Employers must control pedestrian and vehicular traffic at all job sites on or adjacent to highways, streets, or railways. Traffic controls must conform to the American National Standards Institute (ANSI) D6.1e-1989, “Manual on Uniform Traffic Control Devices for Streets and Highways.”

Electrical hazards

The employer must ensure that the foreman or supervisor closely inspect a tree before anyone climbs or works around it. An electrical hazard exists if a power line passes through the tree or within reaching distance of an employee working in the tree, unless the power line has been de-energized or equipped with protective equipment. The power company must be notified when working within 10 feet of a power line or when a tree may fall within 10 feet of a power line.

When an unqualified person is working near overhead lines, the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

- For voltages to ground 50 kV or below – 10 feet (305 cm)
- For voltages to ground over 50 kV – 10 feet (305 cm) plus 4 inches (10 cm) for every 10 kV over 50 kV

The employer must ensure that electrical safety-related work practices are followed.
Tree and shrub services – continued

Electric tools

• All portable electric hand tools must have a three-wire cord with the ground wire permanently connected to the tool frame and a means for grounding the other end, or be double insulated.
• Tool operators must use electric hand tools according to the manufacturer’s instructions.
• Hand tools

Select the correct tool for the job and do not use tools that have been damaged.

Work procedures

Climbing

A tree worker must be tied in with an approved climbing rope and safety saddle or safety belt when working 4 feet or more above the ground. The worker must use a climbing rope even when working from a ladder or scaffold.

• Climbers must inspect tree limbs while climbing.
• Climbers must secure themselves with the climbing line before starting the climb and must remain tied in until the work is done and they are back on the ground.

Pruning and trimming

Workers who climb in trees must always do the following:

• Hang pole pruners and pole saws securely in a vertical position. Do not hang them on utility wires or cables or leave them in the tree overnight. Always hang pruners and saws so that the sharp edges are away from workers.
• Hook a scabbard or sheath to the climbing belt or safety saddle to carry a handsaw.
• Give warning, when necessary, before dropping a limb.
• Attach a line separate from the climbing line to limbs that cannot be dropped or that are too heavy.
• Remove cut branches or climbing ropes from trees overnight.
• Inspect ropes for cuts or abrasions before starting work; if any are found, discard the rope, use it for some other purpose, or cut off the defective section.
• Have a second worker nearby during all tree working operations aloft.
• Be above large limbs when lowering them.
• Use guidelines, hand lines, or tag lines when conditions warrant.
Cabling

- Branches must be brought together by using a block and tackle, a hand winch, a rope, or a rope with a come-along.
- No more than two workers may be in a tree during cabling installation.
- When releasing the block and tackle, workers in trees must be off to one side in case the lag hooks pull out. Ground workers must not stand under the tree while cable is installed.
- Workers must carry tools for cabling, bark tracing, and cavity work in a bag or belt designed for that purpose.

Tree-falling

Before beginning, tree workers must develop a safety plan that ensures the following:

- Consideration is given to the tree and the surrounding area for anything that may create a hazard when the tree falls, including the shape and lean of the tree, wind force and direction, decayed or weak spots, and the location of other employees or structures.
- There is a planned escape route and the work area is cleared to permit safe working conditions.
- All tree workers know exactly what to do during tree-falling.
- Workers not directly involved are at least two tree lengths away from the tree being felled.
- A notch and back-cut is used in falling trees more than 5 inches in diameter, breast height.
- Ripping or slicing cuts are not used to fall a tree.
- The depth of the notch is about one-third the diameter of the tree.
- The height of the notch is about 2½ inches for each foot in diameter of the tree.
- The back-cut must be made higher than the apex of the notch to prevent kickback.
Tree and shrub services – continued

• An audible warning is given to those in the area just before the tree falls.
• Wedges, block and tackle, rope, or wire cable is used if there is a risk the tree could fall the wrong way or damage property (unless there is an electrical hazard), and limbs are removed so that the tree will fall clear of wires and other objects.
• Special precautions are taken to rope rotten or split trees to prevent them from falling in unexpected directions.
• The faller retreats to a safe location just before the tree falls.

**Vehicle-mounted elevating and rotating work platforms**
• Only trained employees can operate an aerial lift.
• Employees must always stand firmly on the floor of the basket, and must not sit or climb on the edge of the basket or use planks, ladders, or other devices for a higher work position.
• A full-body harness or body belt must be worn with an appropriate lanyard attached to the boom or basket when working from an aerial lift.

**Boom-supported elevating work platforms**
• When using boom-supported elevating work platforms, the manufacturer’s operating manual must be with the equipment.
• Employees must follow all manufacturers’ operating and maintenance instructions and recommendations.
• All occupants on platforms must use a personal fall protection system that will protect against the potential effects of ejection.

**Limbing and bucking**
• The tree worker must work on the side opposite the side of the limb being cut.
• The tree worker must stand on the uphill side of the work.
• Branches bent under tension must be considered hazardous.
• The tree worker must block the log to prevent rolling, when necessary.
• When bucking up trunks of trees, wedges must be used to prevent binding of the guide bar or chain.
Chipper equipment

Enclose rotating chipper components in housing capable of retaining broken chipper knives or foreign material.

Feed chutes and side members must prevent the operator from contacting rotating blades under normal operating conditions.

Chippers that have mechanical infeed systems must have the following:

- An infeed hopper that measures at least 85 inches from the blades or knives to ground level at the center line of the hopper.
- A flexible anti-kickback device in the feed hopper that protects the operator and others from flying chips.

A shut-off switch must be within convenient reach of the operator.

Chippers that do not have mechanical infeed systems must have a quick-stop/reversing device on the infeed across the top and along each side of the hopper, as close to the feed end of the hopper as practicable. The device must be within convenient reach of the operator.

Chipper operators must be familiar with the manufacturer’s operating instructions, maintenance procedures, and safe work practices.

Follow energy-control procedures in Subdivision 2/J, 1910.147, (Control of hazardous energy) to prevent accidental restart of equipment during shutdown for service or maintenance.

- Guard exposed adjacent blades when replacing chipper blades.
- Close and secure all access panels before operating the chipper.
- When feeding the chipper, make sure that a co-worker is nearby.
- Do not feed foreign objects into the chipper.
- Feed chippers from the side of the center line; turn away from the feed table as materials are drawn into the rotor. Feed chippers from curbside whenever practical.
- Ensure that feed and discharge chutes are in place to prevent contact with rotating blades when the chipper is operating.
- Trailer chippers must be chocked or otherwise secured when detached from trucks.
- Before towing a chipper, cross safety chains under the tongue of the chipper and attach them to the towing vehicle.
Chipper equipment – continued

Personal protective equipment
Employees in the immediate area of an operating chipper must wear appropriate personal protective equipment. Employees feeding chippers must not wear loose clothing, gauntlet-type gloves, rings, or watches.

Storm work and emergencies

- Only authorized representatives of the electric utility system operator may perform tree work in situations involving energized electrical power conductors.
- In an emergency due to tree operations, suspend work and notify the system operator immediately.

Sprayers

- Sprayers and related equipment must have slip-resistant cover material on all walking and working surfaces.
- Moving equipment on which workers stand and spray must have a guard railing around the work area that complies with the requirements in Subdivision 2/D, Walking-working surfaces.
Stump cutters

- Stump cutters must have enclosures or guards that protect the operator.
- Operators and workers in the immediate area must wear eye protection.

Lawn mowers

- Power lawn mower chains, belts, and gears must have guards that prevent contact when the operator starts, mounts, and operates the machine.
- There must be a shutoff device to stop the motor from operating.
- All positions of the operating controls must be clearly identified.

Walk-behind and riding rotary mowers

- The mower blade must be enclosed on all sides, except the bottom.
- A warning not to use the mower without the catcher assembly or the guard in place must be on the mower near the opening.
Trenching

A trench is a narrow excavation (the depth greater than the width) not more than 15 feet wide at the bottom. An excavation is any man-made cut, cavity, trench, or depression in the earth’s surface formed by removing the earth.

Before digging, call the Oregon Utility Notification Center and have the utility installations (sewer, telephone, fuel, electric, water lines, or any other underground installations) located and marked. These utility installations could be buried anywhere you plan to dig: adjacent to roads and sidewalks, or even in a yard. Calling before you dig ensures that any publicly owned underground lines will be marked, so that you can safely dig around them. Having the utility lines marked not only prevents accidental damage to the lines, but prevents property damage and personal injuries that could result in contacting a line.

Oregon Utility Notification Center (OUNC) Call: 1-800-332-2344 (or 811) www.digsafelyoregon.com

Before employees begin work in an area exposed to public vehicular traffic, they must wear warning vests or high-visibility garments.

A competent person must inspect excavations at least daily for possible cave-ins, system failures, or other hazardous conditions. Remove exposed employees from hazardous areas until the areas are safe. Inspect excavations after heavy rains and activities such as drilling or blasting that may increase the potential for hazards.

Protect employees who work in excavations more than 5 feet deep by sloping or benching the sides, shoring the sides, or placing a shield between the sides of the excavation and the work area.

Do not excavate below the level of the base or footing of any foundation or retaining wall unless a support system is in place, the excavation is in stable rock, or a registered professional engineer determines that the force exerted by the weight of structure will not endanger employees working in the excavation.

Do not excavate under sidewalks or pavement unless an appropriately designed support system is in place or equally effective method is used.

Storing materials

Oregon OSHA prohibits storing anything in a way that creates a hazard. Piles and stacks must be stable and not a hazard to employees. Store chemicals according to the information on the labels or safety data sheets. Storage requirements for flammables vary according to the type of material, the type of container, and the storage area.
Oregon OSHA offers a wide variety of safety and health services to employers and employees:

**Appeals**
503-947-7426; 800-922-2689; admin.web@oregon.gov
- Discusses Oregon OSHA’s requirements and clarifies workplace safety or health violations.
- Discusses and negotiates settlement agreements to resolve disputed citations.

**Conferences**
503-378-3272; 888-292-5247; oregon.conferences@oregon.gov
- Co-hosts conferences throughout Oregon that enable employees and employers to learn and share ideas with local and nationally recognized safety and health professionals.

**Consultative Services**
503-378-3272; 800-922-2689; consult.web@oregon.gov
- Offers no-cost, on-site safety and health assistance to help Oregon employers recognize and correct workplace safety and health problems.
- Provides consultations in the areas of safety, industrial hygiene, ergonomics, occupational safety and health programs, assistance to new businesses, the Safety and Health Achievement Recognition Program (SHARP), and the Voluntary Protection Program (VPP).

**Enforcement**
503-378-3272; 800-922-2689; enforce.web@oregon.gov
- Offers pre-job conferences for mobile employers in industries such as logging and construction.
- Inspects places of employment for occupational safety and health hazards and investigates workplace complaints and accidents.
- Provides abatement assistance to employers who have received citations and provides compliance and technical assistance by phone.

**Public Education**
503-947-7443; 888-292-5247, Option 2; ed.web@oregon.gov
- Provides online courses and materials covering management of basic safety and health programs, safety committees, accident investigation, technical topics, and job safety analysis.
Standards and Technical Resources
503-378-3272; 800-922-2689; tech.web@oregon.gov

- Develops, interprets, and gives technical advice on Oregon OSHA’s safety and health rules.
- Publishes safe-practices guides, pamphlets, and other materials for employers and employees
- Manages the Oregon OSHA Resource Center, which offers safety videos, books, periodicals, and research assistance for employers and employees.

Need more information?
Call your nearest Oregon OSHA office.

Salem Central Office
350 Winter St. NE
Salem, OR 97301-3882
Phone: 503-378-3272
Toll-free: 800-922-2689
Fax: 503-947-7461
en Español: 800-843-8086
Web site: osha.oregon.gov

Bend
Red Oaks Square
1230 NE Third St., Suite A-115
Bend, OR 97701-4374
541-388-6066
Consultation: 541-388-6068

Eugene
Valley River Office Park,
Bldg B, Ste 150
1500 Valley River Dr
Eugene, OR 97401
541-686-7562
Consultation: 541-686-7913

Medford
1840 Barnett Road, Suite D
Medford, OR 97504-8250
541-776-6030
Consultation: 541-776-6016

Pendleton
200 SE Hailey Ave.
Pendleton, OR 97801-3056
541-276-9175
Consultation: 541-276-2353

Portland
Durham Plaza
16760 SW Upper Boones Ferry Road,
Suite 200
Tigard, OR 97224-7696
503-229-5910
Consultation: 503-229-6193

Salem
1340 Tandem Ave. NE, Suite 160
Salem, OR 97301
503-378-3274
Consultation: 503-373-7819