

**OSHA's Local Emphasis
Program (LEP)
for Tree Trimming Operations**
October 22, 2013



Objectives

- OSHA's Tree Trimming LEP
- Common hazards in tree trimming operations
- Top OSHA violations in the industry

Tree Trimming Operation LEP

- Illinois and Ohio OSHA Offices
- Effective Date: April 1, 2013
- Industry Group 078: *Landscape And Horticultural Services*
- NAICS CODE: 561730

OFFICES in ILLINOIS

Chicago North

Aurora

AURORA

(630) 896-8700

Cal City

CALUMET CITY

(708) 891-3800

CHICAGO NORTH

(847) 803-4800

PEORIA

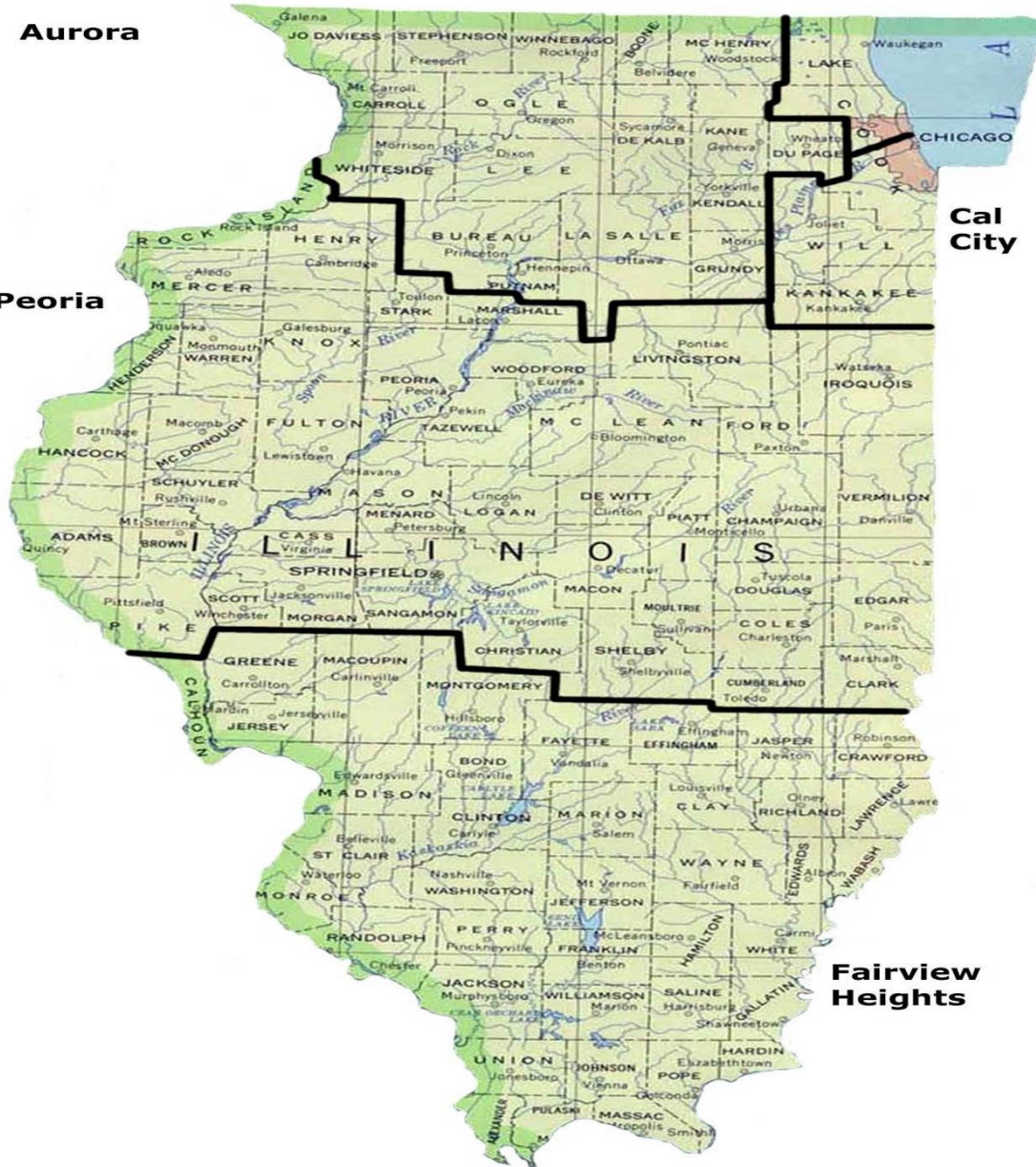
(309) 589-7033

FAIRVIEW HEIGHTS

(618) 632-8612

Fairview Heights

REGION V (312) 353-2220



Industry Group 078: *Landscape And Horticultural Services*

- 0783 Ornamental Shrub and Tree Services
Establishments primarily engaged in performing a variety of ornamental shrub and tree services.
- Arborist services
- Ornamental bush planting, pruning, bracing, spraying, removal, and
- Ornamental tree planting, pruning, bracing, spraying, removal, and
- Tree trimming for public utility lines
- Trees, ornamental: planting, pruning, bracing, spraying, removal, and
- Utility line tree trimming services

NAICS CODE: 561730

Fatalities

- FY2007-FY2011 Region V: 22 fatalities related to tree trimming operations.
 - 11 occurred in Ohio

There has been a 43% increase in fatalities from 2007-2011, with the greatest increase in Ohio



FY2011

- 8 workplace fatalities, with 5 occurring in Ohio
 - Four leading causes of these accidents were:
 - Struck by 45%
 - Falls from elevation 32%
 - Caught in or between 10%
 - Electrical shock 5%



Types of Fatalities

- Workers struck by falling trees and

Tree Trimming is an occupation with several hazards identified in OSHA's focus four (i.e. Falls, Caught-in or between, Struck-by and Electrocutation)

- Electrical shock in vicinity of overhead power lines



Common Hazards

- Traffic control/work zone hazards
- Line-Clearance tree trimming operations
- Fall hazards/ladders
- Use of lift equipment
- Chain saw hazards
- Falling debris
- Wood chippers
- Noise
- Personal Protective Equipment



Traffic control/work zone hazards

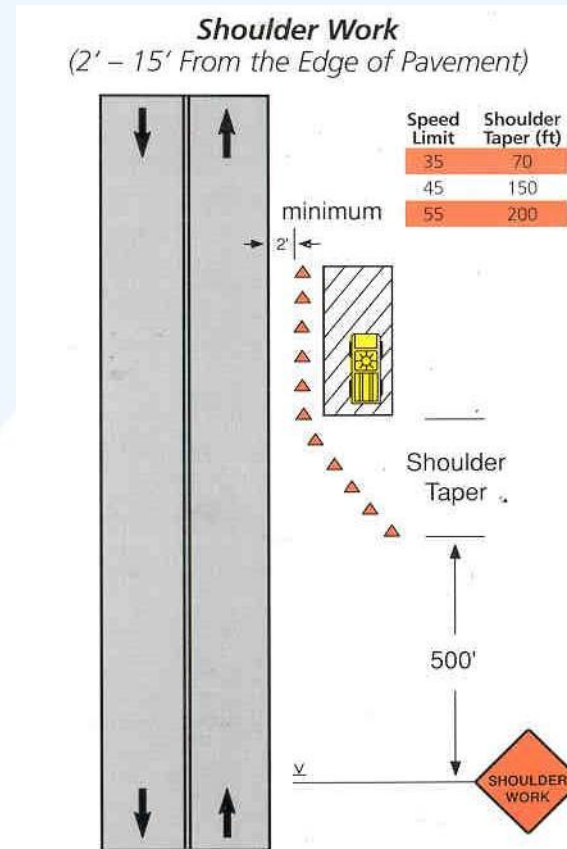


Traffic Control

- Use appropriately trained and clothed flagger to steer traffic away from workers with signs
- Use traffic cones or channeling to protect the work zone.
- Place the first warning signs at a distance calculated as 4 to 8 times (in feet) the speed limit (in mph) and use the larger multiplier for higher speed areas

Regulations to follow

- Temporary traffic control in accordance with Manual on Uniform Traffic Control Devices (MUTCD) or IDOT.
 - Advance warning signs
 - Channeling devices
 - Barriers





ROAD
WORK
AHEAD

RIGHT LANE
CLOSED
AHEAD

STOP
AHEAD

ROAD
CONSTRUCTION

High Visibility Safety Apparel

- ANSI/ISEA 107-2004 compliant high visibility safety apparel worn when working near (within 15 feet of roadway)
- Class 3 garments - for exposure to high vehicle speeds or reduced sight distances wearer identifiable at least one-quarter mile away
- Class 2 garments - worker to divert attention from traffic to complete tasks and speeds of 25 mph or more
- Class 1 garments workers can pay full attention to traffic, enough separation and speeds less than 25 mph



Line-Clearance

Line-clearance Tree Trimming

- Pruning, trimming, repairing, maintaining, or removing trees or cutting brush within 10 feet of energized power lines
- Addresses personnel and equipment requirements
- Qualified employees and line-clearance tree trimmers



3 Different Qualification Levels for Line-clearance Tree Trimmers



Unqualified Employees

- Must maintain minimum approach distances of more than 10 feet from overhead power lines.
- Work practices for these employees are covered by Subpart S, 1910.333(c)(3)
- 1910.269 does not apply to tree trimming performed by unqualified employees

269-qualified Employees

- Must use their 269 specific skills and related tree cutting procedures and training to safely trim trees
- All of 1910.269 except paragraph (r)(1), which applies specifically to line-clearance tree trimmers, apply to work performed by these specialized workers



Line-clearance Tree Trimmers

- Employees who have received specialized training to work within 10 feet of energized power lines and equipment
- They must:
 - Determine voltage of lines before work begins
 - Ensure body parts, ladders, platforms, or aerial devices remain outside the minimum approach distance

Line-clearance Tree Trimmers

- Use only insulated tools and equipment to remove branches in contact or within minimum approach distance of, energized parts.
- Not work during adverse weather conditions
 - high winds, icing, thunder and lightning, etc
- May work in aftermath of a storm if they have been trained in the special hazards



Line-clearance Tree Trimmers

- Trained and certified (observed annually) to be comply with safety related work practices and procedures
- Follow the medical and first aid provisions of 269(b)
 - For field work involving two or more employees at a work location, at least two trained persons shall be available
 - only one trained person need be available if all new employees are trained in first aid/CPR, within 3 months of their hiring dates
 - First aid kits shall be maintained, readily available and be inspected frequently enough to ensure items are replaced at least once per year

Line-clearance Tree Trimmers

- Provided a briefing before starting a job or if expected conditions change.
- Properly wear approved personal protective equipment
- Comply with material handling and mechanical equipment requirements

Line-clearance tree trimmers

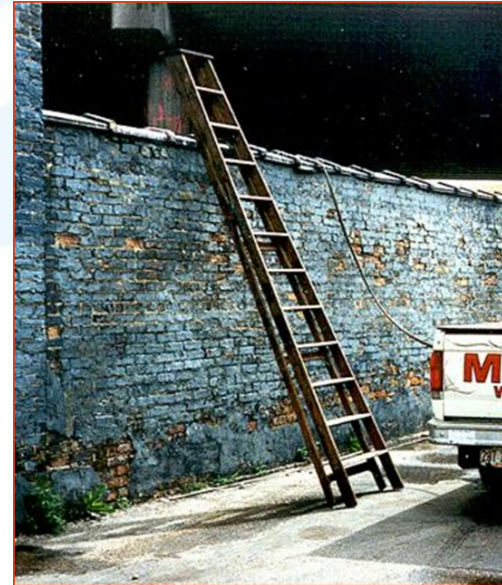
- Must have a second line-clearance tree trimmer within voice range if ...
 - they will approach within 10 feet of any conductor energized at more than 750 volts
 - branches or limbs are being removed from within the minimum approach distance of parts energized at more than 750 volts
 - Roping is necessary to remove branches or limbs from conductors or equipment.

Fall hazards/ladders



Ladders

- Inspect ladders for cracked, broken, or defective parts before use
- Do not exceed the load rating of ladders.
- Set extension ladder at a 75 degree angle from the ground
- Ensure the ladder extends 3 feet above landing surface
- Use non-conductive ladders when working near power lines

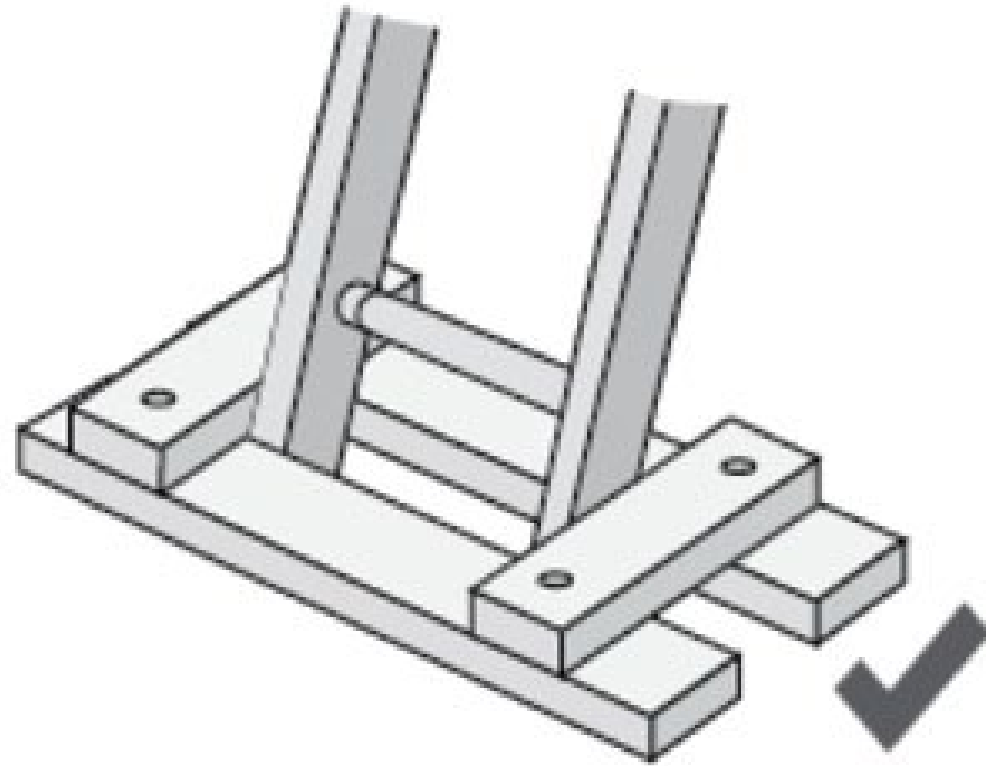


NIOSH Ladder Safety phone app

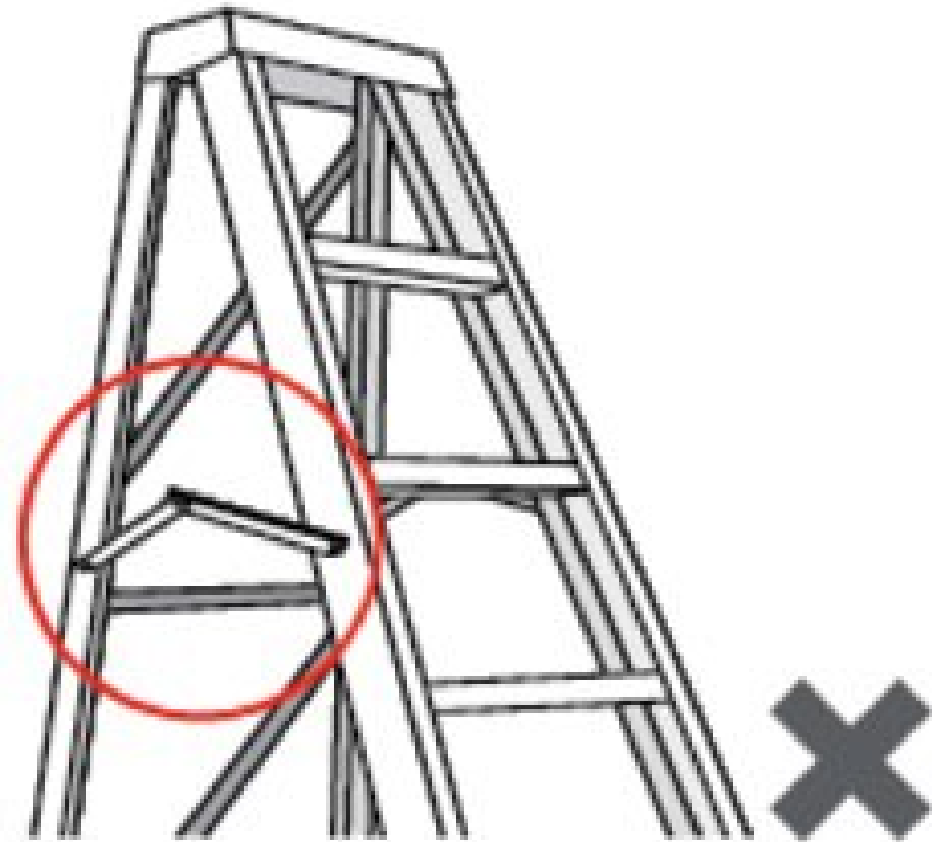
Use the Right Ladder!



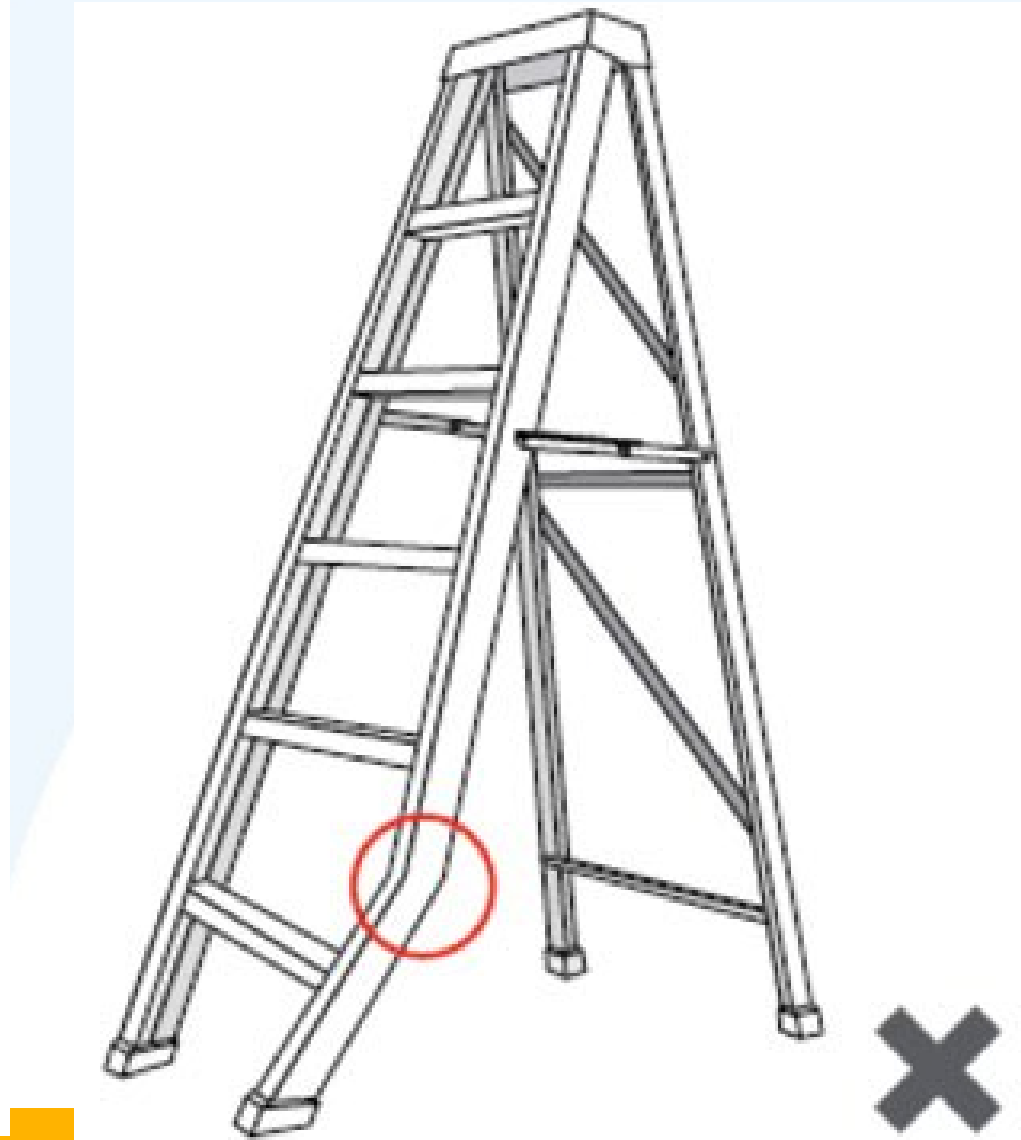
Base Should be Secure



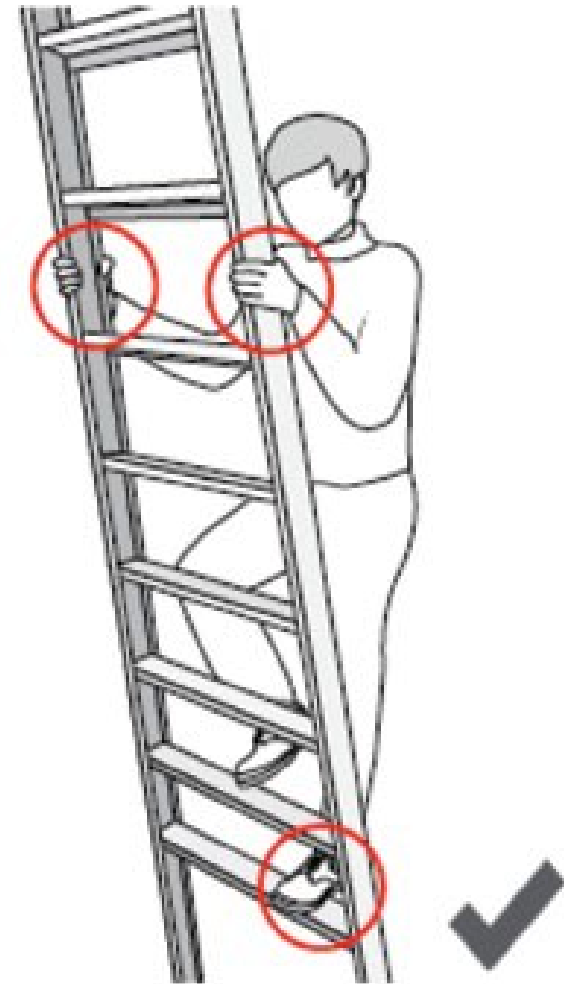
Correctly Set-up Ladder in a Safe Location



Inspect the Ladder for Damage



Maintain 3 Points of Contact

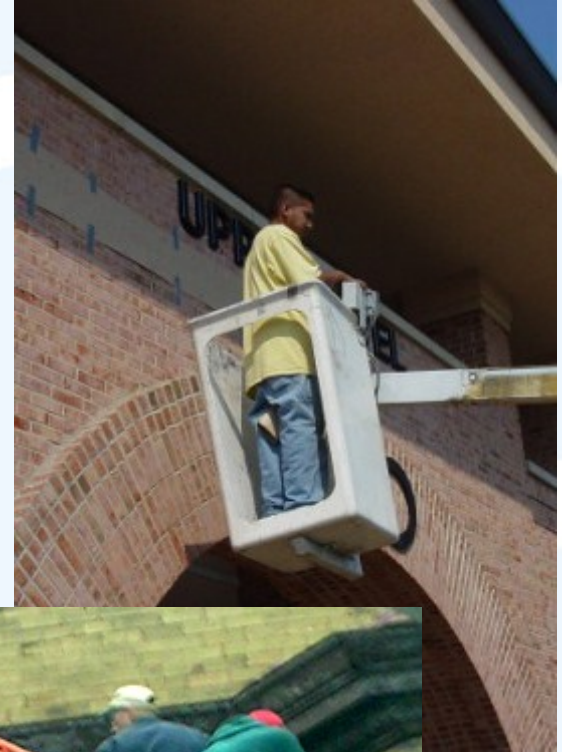


Use of lift equipment



Aerial Lifts

- Only authorized persons can operate the lift
- Wear body harness and lanyard attached to the boom or basket



**No fall
arrest
worn**

Crawler locomotive and truck cranes standard

- Prohibits hoisting an individual on the crane load or hood
(29 CFR 1910.180(h)(3)(v))
 - Requirement applies even though ANSI Z133.1-2006, §5.7.9, allows the hoisting of personnel into position with a crane
 - Compliance with the ANSI standard is not a defense

Chain saw hazards



Chain Saws

- Check chain tension & safety devices before use
- Determine felling direction and hinge size to safely fell the tree
- Ensure a clear path for retreat
- Control access zone and keep workers out of the drop zone
- Clear at least two tree lengths if the fallen tree could roll or slide



Chain saws

- 1910.242(a) equipped with devices to reduce the hazard of kickback
- Section 6.3 of ANSI Z133-2012 recognition of chain saw safe work practices
- Saws be started on the ground or firmly supported (no drop starting)

Lack of Guarding



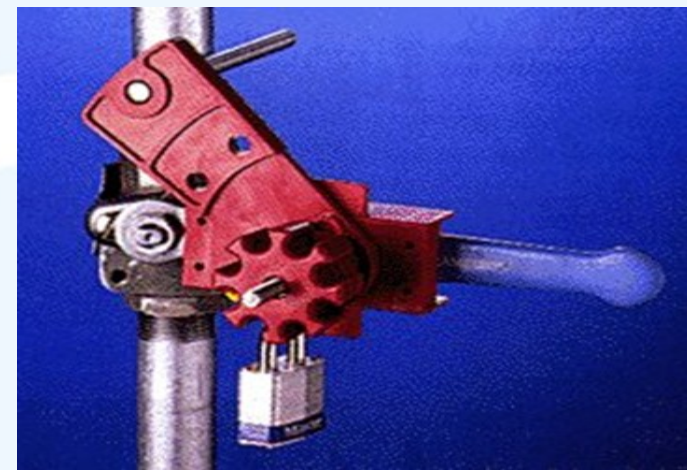
Wood chippers



Wood Chippers/Shredders

- Train employees on proper and safe use of chippers
- Guard the feed and discharge ports
- Do not wear loose-fitting clothing
- Follow manufacturer's guidelines and safety instructions
- Prevent opening of access doors and covers until the drum has completely stopped
- Use a lockout system when servicing or maintaining chipping equipment
- Prevent detached chippers from sliding or rolling by chocking the trailer wheels

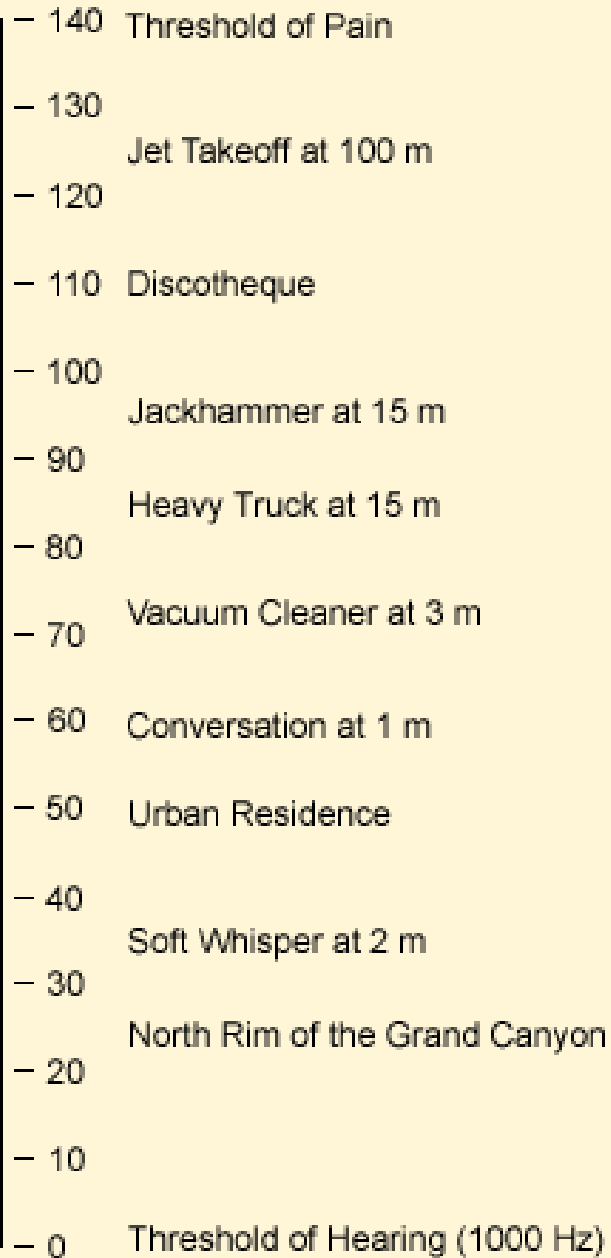
Lockout



- Written Program
- Machine specific procedures
- Multiple employee procedures
- Equipment and Hardware
- Training
- Periodic inspections
- Interlocks – *not lockout*

Typical A-Weighted Sound Levels

(dB, re: 20 μ Pa)



Noise

Occupational Noise Exposure

- Noise monitoring for all tasks.
- Exposed above 90 dBA must wear hearing protection
- Employees exposed above 85 dBA must be included in a hearing conservation program:
 - Hearing protection available
 - Audiometric testing.
 - Training
 - Recordkeeping

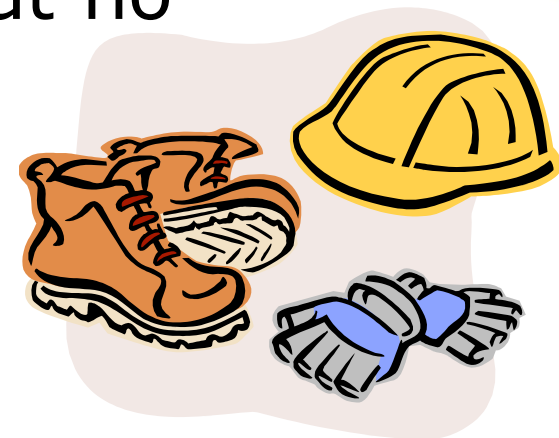


Personal Protective Equipment



Personal Protective Equipment

- Subpart I mandates that employers
 - assess the hazards at the worksite: written document that describes PPE and identifying a person certifying
 - provide most types of PPE at no cost to the employee
 - train employees
 - and require its use



Hazard assessment

	<i>Apron</i>	<i>chemical resistant gloves</i>	<i>face shield</i>	<i>metatarsal safety shoes</i>	<i>safety glasses</i>	<i>leather gloves</i>	<i>hearing protection</i>	<i>HEPA respirator</i>
<i>Painter</i>	x	x	x		x			
<i>Grinding (abrasive wheel)</i>			x		x		x	
<i>Garbage collection</i>				x	x	x		
<i>Fist aid provider</i>		x			x			
<i>Battery maintenance</i>	x	x	x	x	x		x	
<i>Furnace Cleaning</i>			x	x	x	x	x	x
<i>Bung hole wrapper</i>	x	x	x	x	x		x	

Employers must provide PPE for...

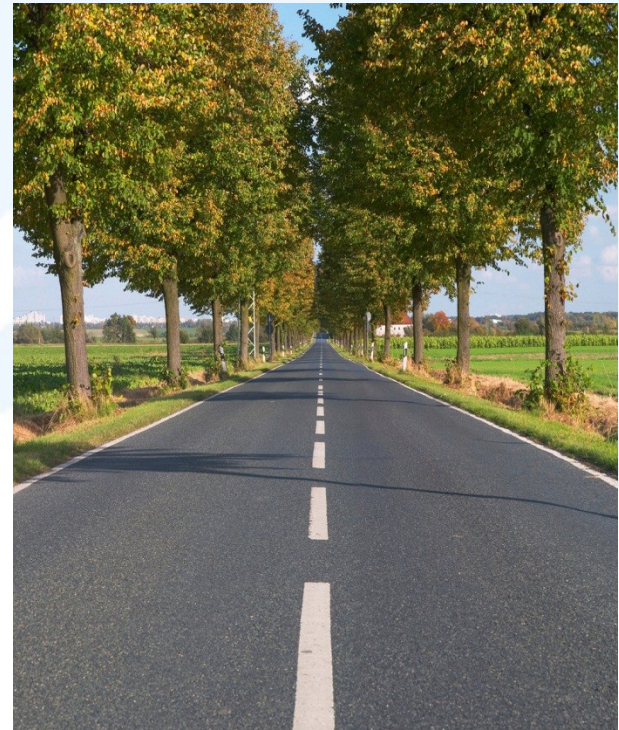
- Exposures to:

- Roadway vehicles
- Falls
- Cuts and lacerations
- Impact hazards from flying objects
- Slips, trips, falls on working surfaces
- Manual handling of materials/weight
- Heat stress and cold stress
- Poisonous plants and animal/insect bites



Personal Protective Equipment

- Eye and face protection
- Head protection
- Foot protection
- Hand protection
- Leg protection
- High Visibility clothing
- Electrical protective equipment





**No hard
hat
1910.135**

Victim mowing without protective goggles.
Retina was irreparably damaged, blinding him



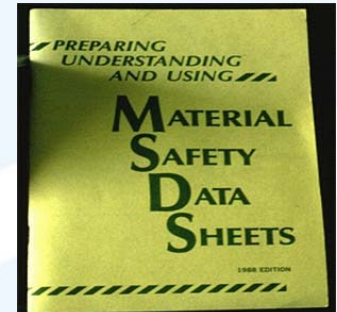
Other Areas/Hazards

- Hazard Communication
- Flammable and Combustible Materials
- Heat-related Illnesses

1910.1200

Hazard Communication

- Written Program
- Material Safety Data Sheets (MSDS)
- Labeling
- Information and training
- Training initially and for new hazards



Updated Hazard Communication



- **Hazard classification**
- **Labels:** includes:
 - Product identifier

– Pictogram,






- **DECEMBER 1, 2013-Train employees on the new label elements and safety data sheet (SDS) format.**

– Precautionary statement(s),

– Name, address and telephone number

- **Safety Data Sheets:** specified 16-section format.
- **Information and training:** workers trained to facilitate recognition and understanding of the new labels and safety data sheets.

HCS Pictograms and Hazards

Health Hazard  <ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	Flame  <ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self Reactives• Organic Peroxides	Exclamation Mark  <ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity (harmful)• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  <ul style="list-style-type: none">• Gases under pressure	Corrosion  <ul style="list-style-type: none">• Skin Corrosion/	Exploding Bomb  <ul style="list-style-type: none">• Explosives• Self-Reactives• Organic Peroxides
Skull and Crossbones  <ul style="list-style-type: none">• Acute Toxicity (fatal or toxic)		

Flammable & Combustible Materials

- Approved containers for storage and handling
- Safety cans for dispensing liquids
- Bond and ground during dispensing
- Incidental storage
 - 25 gallons class 1A
 - 120 gallons class 1B, 1C, II, or III in containers



Preventing Heat Related Illnesses

- Establish a prevention plan:
 - Provide an adequate supply of water
 - Take regular scheduled breaks
 - Help workers become acclimated to heat
 - Train workers on how to recognize signs of heat related illnesses
 - Plan for emergencies
 - Workers need to gradually build up to heavy work (acclimated)
 - Management check of workers



Most Cited Standards

FY 2012 (nationwide) SIC 0783

- 1. 5(a)(1) – General duty clause referencing industry consensus standards, such as the American National Standard for Arboricultural Operations, ANSI Z133.1-2006**
- 2. 1910.26 – Portable metal ladders**
- 3. 1910.67 – Vehicle mounted elevating and rotating work platforms**
- 4. 1910.106 – Flammable liquids**
- 5. 1910.151 – Medical services and first aid**
- 6. 1910.132 – Personal protective equipment**
- 7. 1910.133 – Eye and face protection**
- 8. 1910.135 – Head protection**
- 9. 1910.136 – Foot protection**
- 10. 1910.138 – Hand protection**

Resources

- ANSI Z133-2012 Safety Requirements for Arboricultural Operations
- Illinois On-site S&H Consultation Program
Phone:
(800) 972-4216
- www.osha.gov
 - Fact Sheet
 - Quick Card
 - S&H Topics Page for Tree Care Industry
 - CPL 02-01-045 - Citation Guidance Related to Tree Care and Tree Removal Operations [08/21/2008]

Questions?



Thank You!



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