



MIOSHA Fact Sheet

Consultation Education & Training Division

Tree Care Industry

The hazards of the tree care industry can be great, and in many cases, they may result in death. Contact with overhead power lines, struck by fallen tree sections, and faulty and/or defective equipment increase the dangers associated with tree care/removal. In an attempt to raise the awareness of those who work in and around the tree care industry MIOSHA has compiled this fact sheet which outlines training and education services available, tree care industry safety and health program related topics, and tree care industry injury and illness statistics.

Summary of 2006 Fatalities

Electrocution

- 22-year-old male was electrocuted after making contact with a live power line while trimming from a tree during a clearance operation – May 17, 2006.
- 35-year-old male was electrocuted after making contact with a live power line while trimming from a tree while removing a tree – July 28, 2006.

Struck By

- 49-year-old male was pinned under a tree that was being removed when it fell due to an incorrect cutting technique – April 3, 2006.
- 49-year-old male was struck by a limb that was being lowered from a tree when the rope being used to lower the limb broke, striking the worker in the head – April 8, 2006.

MIOSHA Standards

Part 53. Tree Trimming and Removal

This standard defines the minimum requirements for tree trimming work. Of particular concern are:

- **Rule 5303:** Definitions: know the qualifications of employees who work on tree trimming. There is a difference between a tree worker and a qualified line clearance tree trimmer. A qualified line clearance tree trimmer is an

employee trained in working in the proximity of electrical conductors. Understand clearances from energized lines and conductors.

- **Rule 5321:** Shows clearance distances (Table 1) for the tree worker when approaching energized conductors; Table 2 governs qualified line clearance workers.
- **Rule 5336:** If there is a danger of a tree falling the wrong way, such means as wedges, block and tackle, and rope shall be used to control the fall.

Part 58. Aerial Work Platforms

This standard defines the minimum requirements, when using elevated and rotating platforms while doing tree-trimming work. Of particular concern is Rule 5832(3) which addresses work being done by a qualified line clearance tree trimmer on or near power distribution lines from an aerial lift. Such personnel shall maintain distances prescribed in Table 2 of the standard.

Part 380. Occupational Noise Exposure and Hearing Conservation

Noise exposure is a health concern. Engineering and administrative controls must be used to the extent feasible to reduce exposures below the permissible exposure limit (PEL) for noise (i.e., 90 dBA as averaged over an 8-hour workshift). Where such controls are not feasible or sufficient to reduce employee exposures below the PEL, a selection of hearing protection must be provided and required for employee use.

Employers must also institute a hearing conservation program when employees are exposed to high levels of noise on the job. A hearing conservation program consists of noise monitoring, baseline and annual hearing tests, annual noise training, provision of a selection of hearing protection (i.e., at least two different types of devices), posting a copy of Part 380, and proper maintenance of exposure and hearing test records.

The requirement for the hearing conservation program applies when employee noise exposures equals or exceeds the action level (AL) for noise (i.e., 85 dBA as averaged over an 8-hour workshift).

Other Important Facts to Consider

Personal Protective Equipment: Eye and head protection shall be provided and used. If employees are exposed to vehicular traffic, orange colored jackets or vests must be provided at no cost to the employee. Understand and follow safe operating procedures and wear appropriate protection when operating a chain saw.

Approved Safety Belts: Fall protection must be used when climbing. An employee shall not climb in high winds, during storms, or snow or ice conditions unless in emergency conditions. Whenever the employee is aloft over 15 feet, another employee or supervisor must be within hearing distance.

Clear the Area: When felling, before the cut is started, the feller shall check for other employees, dead limbs, angle of tree, wind conditions, and plan a path of retreat. Assisting employees shall be instructed on exactly what they are to do. Other employees are to be cleared away at a distance to twice the height of the tree being cut. Just prior to the tree falling an audible warning shall be given.

Chipper Concerns: When removing brush and using brush chippers, feed the chipper from the side of the centerline of the opening. Employees shall turn away when brush is taken into the rotor chamber. Where applicable, the chipper shall be fed from the curb-side. Wear appropriate clothing; you cannot wear loose sleeves, gauntlet gloves, watches or rings.

Additionally, the brush chipper shall be equipped with a locking device on the ignition system. Access panels for maintenance and adjustment shall be closed. The infeed hopper or table of the brush chipper shall be of such a design to prevent an employee reaching into the rotor blades or knives.

Mobile Equipment: Before backing up any mobile equipment, the operator shall check the rear area of the vehicle. In areas of congestion or obstructed view, a backup alarm or an employee will assist the operator. Maintain appropriate clearances from energized conductors.

Use Best Safe Work Practices: Read the equipment manuals; be trained for your job responsibilities; pre-plan – meet and discuss the job; know the hazards, identify them at the job site and do a walk-around; and know where all members of the crew are located before and during felling and trimming.

Create a Pre-Start Checklist to Identify:

- Condition of trees, limbs to be cut - splits, cankers, cracks;
- Equipment needed – eye and head protection, harness, clips, belts;
- Condition of equipment - damage, defects or alterations;
- Personal protective equipment requirements;
- Powered hand tools; and
- Location of power lines, slope of the work area, cone requirements, warning signs.

Training & Education Services/Resources

MIOSHA Consultation, Education and Training (CET) Division: www.michigan.gov/cet

International Society of Arboriculture: www.isa-arbor.com

Tree Care Industry Association (TCIA):
www.treecareindustry.org

Arboriculture Society of Michigan (ASM)
www.asm-isa.org

Michigan Green Industry Association (MGIA):
www.landscape.org or 1-800-354.6352

Occupational Safety and Health Administration (OSHA): www.osha.gov

National Institute of Occupational Safety & Health (NIOSH): www.cdc.gov/niosh

American National Standards Institute (ANSI):
www.ansi.org

- A300-2001: Tree Care Operations
- Z133.1-2006: Safety Requirements

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