

SUBJECT: Citation Guidance Related to Tree Care and Tree Removal Operations.

Purpose: This instruction provides guidance on the application of MNOSHA General Industry standards to tree care and tree removal operations.

Scope: This instruction applies MNOSHA-wide and will remain in effect until a final standard addressing tree care operations is issued. In addition, the instruction provides criteria that will assist in determining whether a particular removal of trees is the type of operation covered by the Logging operations standard.

References:

1. 29 CFR 1910.266, Logging operations
2. 29 CFR Part 1910 Subparts H, I, L, N, O, P and S
3. 29 CFR 1910.269, Electric power generation, transmission, and distribution
4. 29 CFR 1910.333, Selection and use of work practices
5. 29 CFR 1910.180, Crawler, locomotive, and truck cranes
6. 29 CFR 1910.151, Medical services and first aid
7. 29 CFR 1910.106, Flammable and combustible liquids
8. 29 CFR 1910.95, Occupational Noise Exposure
9. Minn. Stat. § 182.653, subd. 2
10. OSHA Instruction 02-01-019 (CPL 2-1.19), Logging Operations, Inspection Procedures and Interpretive Guidance, March 17, 1995
11. MNOSHA Instruction 2-1.19, Logging Operations (29 CFR 1910.266), Inspection Procedures and Interpretive Guidance, February 14, 2008.
12. OSHA Instruction 02-01-022 (CPL 2-1.22), Logging Operations, Inspection Procedures and Interpretive Guidance Including Twelve Previously Stayed Provisions, September 27, 1996
13. OSHA Instruction 02-01-038 (CPL 2-1.38), Enforcement of the Electric Power Generation, Transmission, and Distribution Standard, June 18, 2003
14. American National Standard for Arboricultural Operations, ANSI Z133.1-2006, Arboricultural Operations – Safety Requirements
15. American National Standard for Power Tools, ANSI B175.1-2000, Gasoline-Powered Chain Saws – Safety Requirements
16. Society of Automotive Engineers SAE J1040, April 1988, “Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines” or J231, January 1981, “Minimum Performance Criteria for Falling Object Protective Structures (FOPS).”

Background: Many of the hazards found in tree care and tree removal operations are addressed by existing General Industry standards and Minn. Stat. § 182. 653, subd. 2. This instruction provides guidance to OSHIs on OSHA standards that generally apply to tree care and tree removal operations. This instruction clarifies that tree trimming (i.e., the removal of limbs and branches from a tree without the removal of the tree itself or the tree trunk) is not within the scope of the Logging operations standard (29 CFR 1910.266) because such activities do not involve cutting down trees. As such, employers engaged solely in tree trimming operations at a worksite need only comply with other applicable General Industry standards and Minn. Stat. § 182. 653, subd. 2. OSHA's Logging operations standard covers some, but not all, tree removal operations. This instruction, therefore, also establishes procedures and criteria for determining whether a particular removal of trees is the type of operation that is covered by the Logging operations standard. Before MNOSHA issues any citation(s) under the Logging operations standard to employers engaged in small-scale tree removal, or whose primary business is performing tree care operations, the OSHI will be required to establish the type, conditions, and extent of the work being done to determine whether citation(s) of the Logging operations standard are appropriate.

ACTION:

A. Applicability and Interplay of 29 CFR 1910.269 and 29 CFR 1910.333.
When tree trimming or removal is within 10 feet of electric power lines, the requirements of either 29 CFR 1910.269 (Electric power generation, transmission and distribution) or 1910.333 (Electrical – Selection and use of work practices) apply in addition to other applicable General Industry standards, including, if applicable, §1910.266 Logging operations. Section 1910.269 applies if the tree trimming or removal operation is performed by a “line clearance tree trimmer” or “qualified employee,” as that standard defines those terms. See MNOSHA Instruction CPL 2-1.18 [ref. OSHA Instruction CPL 02-01-038(2-1.38), Enforcement of the Electric Power Generation, Transmission, and Distribution Standard]. Section 1910.333 applies if the tree trimming or removal is performed by other types of employees.

B. Program Procedures.
The activities of employers who are performing tree care operations will not be considered “logging” for two reasons: first, because these operations mostly involve tree care or trimming, not removal; and second, because tree removal in a tree care operation occurs only incidentally or on a small scale. When employers are engaged solely in tree trimming, (i.e., the removal of limbs and branches from a tree without the removal of the tree itself or the tree trunk), they will not be subject to compliance with the Logging operations standard, 29 CFR §1910.266. This is because, although the Logging operations standard applies to “all types of logging, regardless of the end use of the wood... includ[ing]... pulpwood and timber harvesting and the logging of sawlogs...and other forest products” (§1910.266(b)(1)), and the standard defines “logging operations” as “operations associated with felling and moving trees from the stump to the point of delivery...,” and “fell” as “[t]o cut down trees” (§1910.266(c)), not every removal of a tree is a logging operation subject to the standard. For example, the removal of a tree, or even several trees, from a residential lot, does not constitute “logging” in ordinary language or under the standard.

There may be situations, however, when an employer’s operations go beyond those typical of tree care operations, and it engages in a tree removal project that is sufficiently large and complex to constitute a logging operation within the meaning of the standard. Accordingly, citations alleging a violation of 29 CFR §1910.266 Logging operations may be issued to an employer engaged in small-scale tree removal, or one whose primary business is performing tree care operations.

The following section provides criteria for an OSHI to consider in evaluating whether to recommend citing an employer under the logging standard. Appendix A: Practical Examples has been provided for further guidance. When an OSHI is investigating whether tree removal by an employer is a “logging” operation to which the Logging operations standard applies, s/he should focus on the nature of the activity performed. The following factors are relevant for the OSHI’s consideration. This list, however, is not exhaustive and the OSHI and Director should always consider the totality of all conditions relevant to the particular operation, on a case-by-case basis, in making a recommendation as to whether a particular tree removal activity constitutes a logging operation within the meaning of the standard:

1. The Scale and Complexity of the Tree Removal Project.
 - a. The scale and complexity of tree removal are key factors in determining whether the Logging operations standard applies. The scale of logging operations typically includes cutting down a substantial number of trees on a large tract of land. In contrast, there are small-scale tree removal activities, such as when an employer is asked to remove one or a few trees from the yard of a private residence that typically would not be considered logging.
 - b. Complexity of a tree removal project takes into account concepts such as the amount of time and equipment needed to perform the project. For example: Logging operations typically take days to months to complete and involve the use of a variety of rough terrain

machinery. In comparison, the removal of several trees from a residence may take only a few hours to a few days and generally would not be considered a logging operation.

- c. The presence of unusually hazardous conditions also may be relevant in assessing the complexity of a tree removal project. For example, removing a significant number of trees damaged in a major storm (e.g., a tornado, hurricane, flood, or ice storm) may expose employees to additional or unfamiliar hazards (e.g., lodged trees or spring poles) that may more closely represent the type of hazards present in the logging industry and predictably would require more extensive protective measures.

2. Number of Trees Removed.

- a. The number of trees being removed on a particular project is an example of the concept of project scale and information that the OSHI shall document in determining whether the Logging operations standard applies. Logging operations typically involve harvesting large numbers of trees for useable wood. In contrast, the removal of one or several trees from a lot typically would not be considered a logging operation.
- b. Projects that involve the removal of multiple trees would be expected to present greater complexity, for example, if the trees are very large or tall. Such projects may involve several work areas and work crews, and require the use of particular felling methods to ensure the trees fall in the intended direction, and necessitate the use of heavy machinery.

3. Type of Equipment or Machines Used to Perform Tree Removal Project.

- a. Logging operations usually involve the use of heavy machinery to cut, move, and load trees [59 FR 51700, 51714-20]. For example: Logging operations often use mechanical felling machines, such as tree shears or feller-bunchers to cut trees off at the base and bulldozers or tractors to push trees over. In particular, bulldozers are often used to clear trees from land in preparation of construction activities. Logging operations also typically involve the use of yarding machines (e.g., skidders, tractors, or forwarders) to carry or drag felled trees to a landing for transport or further processing, and log loaders, log stackers and knucklebooms to lift logs onto trucks or into whole tree chippers. The logging standard contains provisions designed to protect employees from hazards associated with use of this equipment [59 FR 51698]. If a tree removal project involves these various types of rough terrain machines, then it is likely the Logging operations standard applies.

By contrast, a simple tree removal using a chain saw to cut down a tree, and a chipper to dispose of the branches and trunk pieces would not likely fall under the Logging operations standard.

- b. It is important to note that the use of additional machinery (e.g., crane, aerial lift) to facilitate the tree removal is not itself a conclusive factor in determining if the Logging operations standard applies to the operation. Generally, overhead and gantry cranes, crawlers, locomotive cranes and truck cranes are either not used, or infrequently used in logging operations covered by the Logging operations standard [59 FR 51715].

4. The Location of the Tree Removal Project.

Typically, logging operations take place in rural or remote areas, on undeveloped land, or onland that is to be developed. Performing tree removal in rural or remote locations can add to the project complexity. For example, in such locations hospitals and other medical services may not be available or able to reach the worksite quickly enough to ensure effective intervention. The first aid provisions of the Logging operations standard are designed with these circumstances in mind. If a number of trees are being removed in a

remote or rural location, it is likely that the Logging operations standard applies [59 FR 51704-5]. However, the location of the tree removal project, by itself, does not determine whether the Logging operations standard applies. For example, clearing a number of trees from a tract of land in preparation for construction activities generally would be a logging operation wherever it is performed (e.g., undeveloped parcel in urban or suburban area) [59 FR 51699]. See Appendix A, Example 1.

5. Size of Land/Lot Where Tree Removal Project is Performed.

Typically, logging operations are performed on large tracts of land where there is space to cut trees down at once at the stump [59 FR 51706-8]. By contrast, on smaller lots, it may not be possible to remove a tree simply by cutting it at the stump.

6. Factors that Do Not Apply.

The following factors should not affect the OSHI's determination about whether the Logging operations standard applies to a particular tree removal project:

- a. Whether the activity is done by a tree care employer or an outside contractor;
- b. Whether the activity is a regular part of the employee's work;
- c. Whether the activity is done by an employee, contracted on a temporary employment basis, such as a day laborer;
- d. Whether the tree removal project is performed on private or public property;
- e. Whether the removed tree(s) has/have commercial value; and
- f. Size of trees removed.

7. Tree Removal Operations Using Mechanical Equipment.

In some instances, instead of removing a tree or trees by cutting them at the base or piecing them out, employers remove them using equipment and machines. This process, called mechanical felling, involves using equipment such as bulldozers to knock or push down standing trees. Mechanical felling often is used to clear land for construction. This type of mechanical felling operations will generally be subject to the requirements of the Logging operations standard, regardless of the employer's industry sector or the reason the trees are being removed.

C. General Inspection Procedures.

This section describes current OSHA standards that apply to tree removal operations, regardless of whether they are within the scope of the Logging operations standard. The OSHI shall evaluate compliance with the following General Industry standards for all tree removal operations. This section does not limit enforcement of any other applicable OSHA standard or the General Duty Clause (Minn. Stat. 182.653, subd. 2), but rather addresses some of the typical hazards associated with tree care and tree removal operations. Standards promulgated by OSHA after the issuance of this directive may also apply. The following are examples of OSHA's current General Industry standards that are generally applicable to tree removal operations:

1. Occupational Noise Exposure (29 CFR 1910.95).

Chain saws, chippers and other power tools emit high noise levels when in use. Employees exposed above 90 dBA as an 8-hour time-weighted average (TWA) must wear hearing protection. All employees exposed above 85 dB TWA must be included in a hearing conservation program. This program must include noise monitoring, provision of adequate hearing protection at no cost to the employee, baseline and annual audiometric testing, and training in the hazards of noise and the use of hearing protection. Employers shall be cited under the relevant provisions of the noise standard if employees are not provided with appropriate protective measures.

2. Personal Protective Equipment (PPE) (29 CFR Part 1910, Subpart I).

The OSHI shall determine if employees are required to wear cut-resistant leg protection while operating chain saws pursuant to §1910.132(a). However, just as outlined in the Logging operations standard in the note to §1910.266(d)(1)(iv), if an employer can show

that wearing cut-resistant leg protection creates a greater hazard under the same circumstances, that requirement would also not apply to tree care or tree removal operations. Employers shall be cited under the relevant provisions of the personal protective equipment standard(s) if employees are not provided with appropriate protective measures.

Note: In Minnesota, pursuant to Minn. Stat. § 182.655, subd. 10a, employers must provide and pay for all PPE required for employees to perform their jobs safely.

3. Material Handling and Storage (29 CFR Part 1910. Subpart N).

The OSHI shall assess the employer's compliance with OSHA's material handling and storage standards at 29 CFR Part 1910, Subpart N, including whether the employer has ensured that truck-mounted cranes are operated and maintained in compliance with the Crawler locomotive and truck cranes standard (29 CFR 1910.180). Among other requirements, the standard prohibits hoisting an individual on the crane load or hook (§1910.180(h)(3)(v)). This requirement applies even though the American National Standard for Arboricultural Operations, ANSI Z133.1-2006, §5.7.9, allows the hoisting of personnel into position with a crane. An employer's reliance on the ANSI is therefore not a defense to a violation of §1910.180(h)(3)(v). An employer may, however, assert that compliance with the OSHA standard is either impossible/infeasible or presents a greater hazard to the employee. As with other affirmative defenses, the employer bears the burden of proving these affirmative defenses.

- a. A greater hazard defense exists when compliance with the standard:
 - i. Results in greater hazards to the employee than noncompliance;
 - ii. There are no alternative means of employee protection; and
 - iii. An application of a variance would be inappropriate.
- b. If there is reason to believe that either defense may be asserted by an employer using a crane to position an employee, the OSHI shall consider whether the following (non-exclusive) alternative methods could have been used:
 - i. Can an aerial lift position employees? Aerial lifts (e.g., bucket trucks or cherrypickers) are available in many configurations, some with booms of up to 46 meters. Aerial lifts with material handlers are also available, though generally not with the longest booms. Cranes may be used in addition to aerial lifts if heavy limbs must be handled. Aerial devices used in compliance with 29 CFR 1910.67 Vehicle-mounted elevating and rotating work platforms are considered a safe method of positioning employees.
 - ii. Is the tree safe to climb? Climbing decayed or damaged trees could be hazardous. For instance, damage to tree bark from insect infestation, or missing tree bark caused by fire, may make climbing infeasible or more hazardous than using a crane. If the tree is not damaged or decayed to the extent that climbing would be unsafe, then climbing is normally considered safe using the appropriate climbing equipment and practices.
 - iii. If it is impossible to use an aerial device and if climbing is unsafe, can a personnel platform be suspended from a crane? Personnel platforms meeting §1926.550(g)(2) are available in several designs and, when used, will be treated as de minimis violations of §1910.180(h)(3)(v). These platforms are required to be designed to minimize tipping caused by personnel movement through the use of an appropriate suspension system.

4. Protective Structures

In some cases, certain machines (e.g., tractors, mechanical felling devices, feller-

bunchers) used in the removal of trees must be equipped with falling object protective structures (FOPS) and/or rollover protective structures (ROPS) that meet Society of Automotive Engineers SAE J1040, April 1988, "Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines" or J231, January 1981, "Minimum Performance Criteria for Falling Object Protective Structures (FOPS)." The OSHI shall assess whether these types of equipment, if used, meet applicable OSHA General Industry standards. In the event that there are no standards addressing the specific hazard, the OSHI should consult with national consensus standards such as, but not limited to, SAE J1040-1988 and J231-1981 in evaluating hazard recognition and feasible abatement methods under the General Duty Clause.

5. Hand and Portable Powered Tools and Other Hand-Held Equipment (29 CFR Part 1910, Subpart P).

The OSHI shall assess the employer's compliance with OSHA's General Industry standards on the condition, use, and maintenance of hand and portable powered tools (e.g., 29 CFR Part 1910, Subpart P) where such tools and equipment are being used. For example, chain saw equipment specifications require that all chain saws be equipped with devices to reduce the hazard of kickback. The OSHI shall determine if there is a violation of 29 CFR 1910.242(a) when a chain saw is not equipped with such devices. Although Section 1910.242 does not currently contain requirements for safe chain saw work practice, recognition of the hazard of failing to follow safe chain saw work practices is evidenced by requirements in Section 6.3 of ANSI Z133.1-2006. Therefore, unsafe chain saw work practices, such as, but not limited to, not requiring that chains be started on the ground or where firmly supported (i.e., no drop starting), may be subject to citation under the General Duty Clause. Employers shall be cited under the relevant provisions of Subpart P if employees are not provided with appropriate protective measures.

6. Machinery and Machine Guarding (29 CFR Part 1910 Subpart O).

The OSHI shall assess whether the employer is complying with applicable General Industry standards on machinery and machine guarding (29 CFR Part 1910 Subpart O). Employers shall be cited under the relevant provisions of Subpart O if employees are not provided with appropriate protective measures. In addition to Subpart O requirements, if line clearance tree trimmers or qualified employees, as defined in §1910.269, are within 10 feet of an electric power line, the chipper requirements in §1910.269 would also apply (See §1910.269(r)(2)). If employees conducting removal operations are not qualified employees, this activity would be prohibited by 29 CFR 1910, Subpart S.

7. First-Aid Providers and First-Aid Kits (29 CFR 1910.151).

The OSHI shall assess whether the employer is complying with OSHA's Medical services and first aid standard (29 CFR 1910.151) for tree removal operations not subject to the logging standard. The general industry first aid standard requires that, if a hospital or infirmary is not "in near proximity to the workplace," a person or persons trained to render first aid must be designated (1910.151(b)). For tree removal operations that are subject to the Logging operations standard, 29 CFR 1910.266 has additional first-aid requirements.

The purpose of the first-aid provisions in §1910.151 is to ensure that adequate first aid is available in the critical minutes between the occurrence of injury and the availability of a physician or hospital care for the injured employee. An employer who contemplates relying on assistance from outside emergency responders instead of providing on-site first-aid providers must take a number of factors into account (e.g., nature of the hazards at the workplace, distance to the nearest hospital/infirmary). In addition, the OSHI should assess whether the employer has taken appropriate proactive steps (such as making arrangements with emergency responders) to ensure that emergency assistance will be readily available if an injury occurs.

The OSHI shall assess whether the employer is complying with the first-aid supply requirements in OSHA's Medical services and first aid standard (§1910.151). Section 1910.151(b) requires employers to provide first-aid supplies that are readily available at the job site (§1910.151(b)). Appendix A (non-mandatory) to that standard references ANSI Z308.1-1998 "Minimum Requirements for Workplace First-aid Kits" as an example of minimal contents of a generic first-aid kit that OSHA would consider adequate for small worksites. Employers are also permitted to provide first-aid supplies specific to the needs of their workplace.

8. Fire Extinguishers (29 CFR 1910.157).
Although the requirements in 29 CFR 1910.157 Portable Fire Extinguishers do not apply to extinguishers provided for employee outdoor use, the OSHI shall assess whether suitable fire control devices, such as portable fire extinguishers, are available at locations where flammable or combustible liquids are stored (29 CFR 1910.106(d)(7)).
9. Flammable and Combustible Liquids (29 CFR Part 1910 Subpart H).
Flammable and combustible liquids must be stored, handled, transported, and used in accordance with the requirements of 29 CFR Part 1910 Subpart H. Subpart H contains specific requirements for, among other things, the storage of flammable and combustible liquids in portable containers. Employers shall be cited under the relevant provisions of Subpart H if employees are not provided with appropriate protective measures.

Alden L. Hoffman, Director, MNOSHA Compliance
for the OSHA Management Team

Distribution: OSHA Compliance and WSC Director

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APPENDIX A
Practical Examples

Example 1: Logging in preparation for construction. The felling of trees in preparation for construction activities, such as the building of roads, is considered a logging operation. To the extent that an employer is performing such an operation in preparation for construction activities, it is performing general industry work, and the requirements of the *Logging operations* standard as well as other applicable sections of part 1910 apply [59 FR 51699].

Example 2: Logging in preparation for agricultural activities. As with activities related to construction, the same reasoning applies to felling of trees in preparation for agricultural activities (e.g., felling trees to prepare land for crops). Felling of such trees is general industry work and the requirements of the *Logging operations* standard as well as other applicable sections of part 1910 apply. 29 CFR Part 1928 specifically references the applicability of the *Logging operations* standard to felling of trees in preparation of agricultural activities [59 FR 51699].

Example 3: Cable yarding. When the terrain is extremely rugged, and felled trees and logs are otherwise inaccessible, logging operations may require the use of cable yarding systems. Cable yarding, as defined in the *Logging operations* standard, is the movement of felled trees or logs from the area where they are felled to the landing on a system composed of a cable suspended from spars and/or towers. The trees or logs may be either dragged across the ground on the cable or carried while suspended from the cable; a practice that is prevalent in western States. Although the *Logging operations* standard does not address construction or use of cable yarding systems, the standard applies to all other logging activities where cable yarding is used [59 FR 51698].

Example 4: Marking operations. The definition of "logging operations" in the *Logging operations* standard includes "marking danger trees and trees/logs to be cut to length" (29 CFR 1910.266(c)). OSHA intended that marking include operations conducted attendant to, and at the same time as, felling, cutting and moving trees in a particular logging work site. Such marking operations include marking danger trees, and sizing and marking felled trees to be cut to length. These particular marking operations inform loggers working in the area whether and how to cut trees. OSHA did not intend marking operations to include those operations that are done independently, or in advance of, cutting trees at a particular logging site. These preparatory operations include marking of tracts of land to determine the order in which tracts will be logged, and marking and designating boundaries of tracts of land that will be bid upon for harvesting. Harvesting of trees usually does not take place on the tracts while these marking operations are being done and such preparatory operations do not involve the typical hazards of logging covered by the *Logging operations* standard [60 FR 47028].

Example 5: Limited Residential Removal. A homeowner hires a tree care company to remove two diseased trees from a residential lot in a suburban area. The size of the lot allows one tree to be felled at its base but the other tree must be removed in sections. This tree removal operation would not fall under the *Logging operations* standard since the number of trees is small, the type of equipment needed is limited, and the location of the project is not remote.

Example 6: Tree Trimming. A large retail establishment hires a tree care company to thin branches from approximately 75 trees surrounding its parking lot and access road. Limbs and branches are to be removed from the trees without the removal of the trees themselves or the trunks. Although the number of trees is large, the removal of trees does not take place. Therefore, this activity would not fall under the *Logging operations* standard.

Example 7: Limited Weather Removal. A tree has partially fallen on a public road or highway due to a passing thunderstorm. After the storm, the local government hires a tree care company to remove the tree. The tree care company is able to fully fell the tree without any additional hazards being present. This tree removal operation would not fall under the *Logging operations* standard.