



# OSHA INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

**DIRECTIVE NUMBER:** CPL 02-01-044

**EFFECTIVE DATE:** June 25, 2008

**SUBJECT:** Citation Guidance Related to Tree Trimming and Tree Removal Operations

## ABSTRACT

- Purpose:** This instruction provides guidance on the application of OSHA General Industry standards to tree trimming and tree removal operations.
- Scope:** This instruction applies OSHA-wide.
- References:** 29 CFR 1910.266, 29 CFR Part 1910 Subpart I, 29 CFR 1910.269
- Cancellations:** July 1, 1998 Memorandum to Regional Administrators titled *Enforcement Policy Regarding Arborists, SIC 0783 (Ornamental Shrub and Tree Services)*.
- State Impact:** This instruction describes a Federal Program Change for which State adoption is not required, but Notice of Intent is required. (See VI.A)
- Action Offices:** National, Regional, and Area Offices
- Originating Office:** Directorate of Enforcement Programs, Office of General Industry Enforcement
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By and Under the Authority of

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## Executive Summary

This instruction provides guidance in the application of OSHA's General Industry standards, particularly the *Logging operations* standard (29 CFR §1910.266), to employers engaged in tree trimming and tree removal operations. OSHA recognizes that tree removal operations may have characteristics of tree trimming or traditional tree felling operations or both. This instruction clarifies that where a tree removal operation and the methods the employer uses to remove the tree primarily have the characteristics of and involve the hazards that the *Logging operations* standard addresses, the *Logging operations* standard applies along with other applicable General Industry standards and Section 5(a)(1) (the General Duty Clause) of the OSH Act. Where tree removal operations have characteristics of and involve the hazards that are present in both traditional tree felling and tree trimming, the employer may have the option of following either the *Logging operations* standard or the Alternative Compliance Strategy outlined in this instruction. OSHA has determined that "piecing out" operations, as defined in this instruction, have characteristics of both traditional tree felling and tree trimming. Therefore, for example, where employers remove all trees at a jobsite solely by piecing out they may comply with either the *Logging operations* standard (and other applicable General Industry Standards and Section 5(a)(1)) or the Alternative Compliance Strategy. OSHA believes that this approach will ensure that appropriate protective measures will be provided to address hazards associated with both tree trimming and tree removal operations.

This instruction also clarifies that tree trimming, as defined in this instruction, does not come within the scope of the *Logging operations* standard because such operations 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 Section 5(a)(1).

## Significant Changes

This instruction clarifies the appropriate application of OSHA General Industry standards to tree trimming and tree removal operations and includes guidance on the application of OSHA's standards, new definitions, and practical examples.

This instruction supplements Paragraph J.8 of OSHA Instruction CPL 02-01-019 (CPL 2-1.19), *Logging Operations, Inspection Procedures and Interpretive Guidance*, March 17, 1995, by clarifying when §1910.266 applies to operations in near proximity to overhead power lines. It also clarifies OSHA Instruction CPL 02-02-022 (CPL 2-1.22), *Logging Operations, Inspection Procedures and Interpretative Guidance Including Twelve Previously Stayed Provisions*, September 27, 1996.

This instruction cancels the July 1, 1998 Memorandum to Regional Administrators titled *Enforcement Policy Regarding Arborists, SIC 0783 (Ornamental Shrub and Tree Services)*.

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- I. Purpose. This instruction provides guidance on the application of OSHA General Industry standards to tree trimming and tree removal operations.
- II. Scope. This instruction applies OSHA-wide.
- III. References.
  - A. 29 CFR 1910.266, *Logging operations.*
  - B. 29 CFR Part 1910 Subpart H
  - C. 29 CFR Part 1910 Subpart I.
  - D. 29 CFR Part 1910 Subpart L.
  - E. 29 CFR Part 1910 Subpart N.
  - F. 29 CFR Part 1910 Subpart O.
  - G. 29 CFR Part 1910 Subpart S.
  - H. 29 CFR 1910.269, *Electric power generation, transmission, and distribution.*
  - I. 29 CFR 1910.333, *Selection and use of work practices.*
  - J. 29 CFR 1910.180, *Crawler, locomotive, and truck cranes.*
  - K. 29 CFR 1910.151, *Medical services and first aid.*
  - L. 29 CFR 1910.106, *Flammable and combustible liquids.*
  - M. 29 CFR 1910.109, *Explosives and blasting agents.*
  - N. Section 5(a)(1) of the OSH Act.
  - O. [OSHA Instruction 02-01-019 \(CPL 2-1.19\)](#), *Logging Operations, Inspection Procedures and Interpretive Guidance*, March 17, 1995.
  - P. [OSHA Instruction 02-01-022 \(CPL 2-1.22\)](#), *Logging Operations, Inspection Procedures and Interpretive Guidance Including Twelve Previously Stayed Provisions*, September 27, 1996.
  - Q. [OSHA Instruction 02-01-038 \(CPL 2-1.38\)](#), *Enforcement of the Electric Power Generation, Transmission, and Distribution Standard*, June 18, 2003.
  - R. American National Standard for Arboricultural Operations, ANSI Z133.1-2006, *Arboricultural Operations – Safety Requirements.*

- S. American National Standard for Power Tools, ANSI B175.1-2000, *Gasoline-Powered Chain Saws – Safety Requirements*.
  - T. Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual 1987.
- IV. Cancellations.
- A. July 1, 1998 Memorandum to Regional Administrators, *Enforcement Policy Regarding Arborists*.
- V. Action Offices.
- A. Responsible Office. Directorate of Enforcement Programs, Office of General Industry Enforcement.
  - B. Action Offices. National, Regional, and Area Offices.
  - C. Information Office. Directorate of Enforcement Programs, Office of General Industry Enforcement.
- VI. Federal Program Change – Notice of Intent and Equivalency Required.

This instruction is a Federal Program Change which provides guidance on the application of General Industry standards, particularly the *Logging operations* standard (29 CFR 1910.266) to employers engaged in tree trimming and tree removal operations and cancels the July 1, 1998, memorandum, *Enforcement Policy Regarding Arborists, SIC 0783 (Ornamental Shrub and Tree Services)*. States are expected to establish enforcement policies and procedures that are at least as effective as Federal enforcement policies. State standards and enforcement policies and procedures may be more stringent than the Federal. The State must provide notice of its intent to adopt either policies and procedures identical to those set out in this instruction or at least as effective alternative policies and procedures. If the State adopts policies and procedures that differ from the Federal, the State may either post its different policies on its State plan website and provide the link to OSHA, together with identification of the differences in its policies, or provide a copy to OSHA, with identification of the differences in its policies, and information on how the public may obtain a copy. If the State adopts identical policies and procedures, it must provide the date of adoption to OSHA. OSHA will provide summary information on the State responses to this instruction on its website.

VII. Significant Changes.

This instruction clarifies the application of OSHA General Industry standards to tree trimming and tree removal operations. It clarifies that the *Logging operations* standard does not apply to employers engaged solely in tree trimming, as defined in Paragraph VIII - Definitions. For employers engaged in removing trees solely by

piecing out, as defined in Paragraph VIII, this instruction establishes an Alternative Compliance Strategy that they may elect to follow instead of the *Logging operations* standard. This instruction also includes new definitions and practical examples (see Appendix A).

This instruction supplements [OSHA Instruction CPL 02-01-019 \(2-1.1.19\)](#), *Logging Operations, Inspection Procedures and Interpretive Guidance*, Paragraph J.8., to clarify when §1910.266 applies to operations in near proximity to overhead power lines. It also clarifies [OSHA Instruction CPL 2-01-022 \(2-1.22\)](#), *Logging Operations, Inspection Procedures and Interpretive Guidance Including Twelve Previously Stayed Provisions* as it relates to tree trimming and removal operations.

#### VIII. Definitions.

The following are key terms found in this instruction:

- A. “Piecing Out.” The progressive removal of a tree, solely by removing sections of it piece by piece, instead of cutting down the tree all at once at the stump. A piecing out operation generally starts with removing branches and limbs from the standing tree, and employees often perform these tasks in an elevated position (i.e., positioned in the tree or in an elevated bucket). After branches are removed, the tree trunk is removed in sections, generally down to the stump. A tree removal operation is not considered “piecing out” if the length of the tree trunk or any segment of the tree trunk that is cut down or removed exceeds six feet in length.
- B. “Tree Trimming.” The removal of limbs and branches from a tree without the removal of the tree itself or the tree trunk.

#### IX. Inspection Procedures.

When employers are engaged solely in tree trimming, as defined in this instruction, they will not be subject to compliance with the *Logging operations* standard. Instead, they must comply with all other applicable General Industry standards and Section 5(a)(1) of the OSH Act. When evaluating hazard recognition and abatement methods under Section 5(a)(1), CSHOs should consult with national consensus standards such as, but not limited to, American National Standard Institute (ANSI) Z133.1-2006, *American National Standard for Arboricultural Operations – Safety Requirements*.

In tree removal operations, the deciding factor in determining whether employers must comply with the *Logging operations* standard, or may elect to follow the Alternative Compliance Strategy (discussed in Paragraph X), is the method by which the employer removes a tree or trees. This Paragraph provides detailed guidance for making that determination. Additionally, Appendix A provides practical examples of the application of this instruction to specific workplace scenarios.

- A. Method of Removal. The tree harvesting and manual felling provisions in the

*Logging operations* standard are designed primarily to address hazards associated with removing trees by cutting down the whole tree all at once at the stump. If a tree removal operation has the characteristics of logging operations or traditional tree felling or involves the hazards that the *Logging operations* standard addresses, the CSHO will apply the entirety of §1910.266 plus other applicable General Industry standards, regardless of the employer's industry sector or classification (i.e., North American Industrial Classification) or the employee's job title.

In certain locations, however, it may not be feasible to cut down a tree entirely at once at the stump due to the proximity of adjacent structures such as homes, buildings, utilities and power lines, other trees, landscaping features, and property lines. In these situations, the tree may need to be removed piece by piece, a method called piecing out. Employers removing trees in residential areas frequently remove trees by piecing out. In this instruction, the definition of "piecing out" excludes those tree removal operations in which the tree trunk or any segment of the tree trunk being cut down or removed is longer than six feet in length. Where tree trunks or segments of tree trunks being cut or removed exceed six feet, there is greater risk of employees being struck by the falling trunk or segment, a significant hazard that the *Logging operations* standard addresses. The standard includes a number of requirements to prevent employees from being struck by the falling tree trunk/segment and ensure that tree trunks/segments fall in their intended direction. These include requirements on face cuts or undercuts, back cuts, safe felling distances, and retreat paths.

If an employer removes a tree or multiple trees solely by "piecing out," as defined in this instruction, the employer may comply with either the *Logging operations* standard (and other applicable General Industry standards) or the Alternative Compliance Strategy outlined in this instruction. If the employer elects to follow the Alternative Compliance Strategy, the CSHO would reference other applicable OSHA General Industry standards, such as *Personal protective equipment* (29 CFR Part 1910 Subpart I) and *Medical services and first aid* (29 CFR 1910.151). If there is no specific standard to address the hazard or condition, then Section 5(a)(1) of the OSH Act should be considered. When evaluating hazard recognition and abatement methods under Section 5(a)(1), the CSHO should consult sources such as ANSI Z133.1-2006.

Note: An employer who elects to remove a tree or trees solely by piecing out is **not required** to follow the Alternative Compliance Strategy, but may choose to follow OSHA's *Logging operations* standard instead.

- B. Trunk Removal. After the employer has removed tree branches, the employer may remove the trunk at once by cutting it down at the stump or may remove the tree trunk in segments. If the length of the tree trunk or any trunk segment

being cut or removed does not exceed six feet in length, the operation would still be considered “piecing out” and the employer would have the option of complying with the *Logging operations* standard or the Alternative Compliance Strategy. However, if the length of the tree trunk or any trunk segment being removed exceeds six feet, the tree removal operation would not be considered a piecing out operation. In such cases, the Alternative Compliance Strategy would not be available and the employer would have to comply with the *Logging operations* standard (and other applicable General Industry standards and Section 5(a)(1) of the OSH Act.

- C. Multiple Tree Removal Operations at a Worksite. As noted, employers may choose to follow the Alternative Compliance Strategy described in this instruction if they remove a tree or trees solely by piecing out. If an employer is removing multiple trees at a work location and elects, either by choice or necessity, to cut down some trees at the tree stump and others solely by piecing out, the *Logging operations* standard (and other applicable General Industry standards) would apply to all tree removal operations at the entire worksite as well as to all associated tasks there. Similarly, if an employee cuts down a tree trunk or any segment of a tree trunk that exceeds six feet in length, and removes other trees or tree trunks solely by piecing out, the *Logging operations* standard applies to the entire work location and all associated tasks.
- D. Applicability and Interaction 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 the *Electric power generation, transmission and distribution* standard (29 CFR 1910.269) or 1910.333 apply in addition to other applicable General Industry standards. (Section 1910.269 applies if the tree trimming or removal operation is performed by a “line clearance tree trimmer” or “qualified employee,” as the standard defines those terms. Section 1910.333 applies if the tree trimming or removal is performed by other employees.) Therefore, if a tree removal operation conducted within 10 feet of an electric power line comes within the *Logging operations* standard, §1910.266, §1910.269 (or §1910.333), all other applicable General Industry standards, and Section 5(a)(1) if the OSH Act would apply.

If the tree removal operations that are within ten feet of electric power lines are performed solely by piecing out, then §1910.269 or §1910.333 (whichever is applicable) would apply **in addition** to all other applicable General Industry standards and Section 5(a)(1) of the OSH Act. See OSHA Instruction CPL 02-01-038 (2-1.38), *Enforcement of the Electric Power Generation, Transmission, and Distribution Standard*, stating that all other applicable General Industry standards continue to apply to activities covered by §1910.269 (§1910.269(a)(1)(iii)). Additionally, the *Logging operations* standard also specifies that “hazards and working conditions not specifically addressed by this section are covered by applicable sections of part 1910”



(§1910.266(a)(3)). This means that §1910.266 and §1910.269 or §1910.333 can be applied to the same operation.

It must be noted that both §1910.266 and §1910.269 contain provisions that address the same hazard or condition, such as first aid. In such situations, since the purpose of §1910.269, in part, is to act as a **supplementary** vertical standard to address the specific hazards associated with tree trimming and removal in close proximity to power generation, transmission and distribution fixtures, §1910.269 would supplement the requirements found in §1910.266—with two exceptions. For electrical PPE and electrical safe work practices, §1910.269 is the hazard-specific vertical standard and would take precedence. For example, if the tree removal operation in question falls under the *Logging operations* standard, any electrical PPE requirements under §1910.269 would supplement the PPE requirements found in §1910.266. In other words, if both §1910.266 and §1910.269 (with the exception of electrical safe work practices and PPE) address the same hazard or condition, the more stringent of the two standards (e.g., §1910.266 Appendix A, First-aid requirements) would apply.

- E. Tree Removal Operations Using Mechanical Equipment. In some instances, instead of removing a tree or trees by cutting them at the stump 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. The removal of a tree or trees with mechanical equipment (i.e., mechanical felling) would still 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.

X. Alternative Compliance Strategy.

This section describes an Alternative Compliance Strategy that employers may elect to follow if they are removing a tree or trees solely by piecing out, as defined in this instruction. If an employer is removing a tree or trees solely by piecing out, the employer may choose to comply with the *Logging operations* standard (plus all other applicable General Industry standards). However, if the employers are cutting down a tree or trees all at once at the stump or if the tree removal operation is not piecing out, as defined in this instruction, the entirety of §1910.266 applies to those operations, as well as other applicable General Industry standards.

The following illustrates some of the applications of the Alternative Compliance Strategy to specific hazards and working conditions in removing trees solely by piecing out, as defined in this instruction:

- A. Personal Protective Equipment (PPE). The *Logging operations* standard requires, for most types of PPE, that employers provide it at no cost to employees. The standard, however, does not require that employers pay for

logging boots. An employer who elects to comply with the Alternative Compliance Strategy would have to comply with OSHA's PPE requirements at 29 CFR Part 1910 Subpart I. Subpart I also requires, for most types of PPE, that employers provide it at no cost to employees (29 CFR 1910.132(h) (72 FR 64342 (11/15/2007))). However, §1910.132(h), like the *Logging operations* standard, has certain exceptions from that requirement. For example, §1910.132(h) does not require that employers pay for "non-specialty safety toe protective footwear," provided the employer permits such items to be worn away from work, or logging boots required by the *Logging operations* standard. Also, it does not require that employers pay for replacement PPE in those situations where the employee has lost or intentionally damaged the PPE.

Cut-resistant leg protection is one type of PPE that the *Logging operations* standard requires employers to provide and employees to wear while operating chain saws (§1910.266(d)(1)(iv)). A note accompanying the provision explains that "[t]his requirement does not apply when an employee is working as a climber and the employer can demonstrate that a greater hazard is posed by wearing leg protection in the particular situation or when an employee is working from a vehicular mounted elevating and rotating platform meeting the requirements of 29 CFR 1910.67." Employers who elect to follow the Alternative Compliance Strategy would be required to comply with 29 CFR 1910.132(a), which specifies that employers must provide PPE, including PPE for the extremities, "wherever it is necessary by reason of hazards . . . capable of causing injury or impairment to any part of the body. . . ." Pursuant to §1910.132(a), employers are required to ensure that employees wear cut-resistant leg protection while operating chain saws to protect them from being injured. However, if an employer can show that wearing cut-resistant leg protection creates a greater hazard under the same circumstances, as outlined in the note to §1910.266(d)(1)(iv), the requirement would not apply in this situation either.

- B. Mobile Equipment. An employer electing to follow either the *Logging operations* standard or the Alternative Compliance Strategy would be required to comply with OSHA's General Industry standards on the use and maintenance of mobile equipment (e.g., 29 CFR Part 1910, Subpart N). For example, employers would have to ensure 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)). In contrast, ANSI Z133.1-2006, §5.7.9, allows the hoisting of personnel into position with a crane. Since the industry standard would provide less protection than OSHA's standard, the Alternative Compliance Strategy would require employers to comply with §1910.180.

The *Logging operations* standard requires that certain machines (e.g., tractors,

mechanical felling devices, feller-bunchers) 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)*." Under the Alternative Compliance Strategy, employers would have to ensure that those types of machines meet applicable General Industry standards. In the event that there are no standards addressing the specific hazard, OSHA should consult with national consensus standards such as, but not limited to, SAE J1040-1988 and J231-1981 in evaluating hazard recognition and abatement methods under Section 5(a)(1).

- C. Chain Saws, Power Tools and Other Handheld Equipment. The *Logging operations* standard includes requirements on specifications and safe work practices for operating hand and portable powered tools, including chain saws. For example, the chain saw equipment specifications require that all chain saws be equipped with chain brakes to prevent kickback. The chain saw safe work practices, for instance, require that chains be started on the ground or where firmly supported (i.e., no drop starting). Under the Alternative Compliance Strategy, General Industry standards (e.g., 29 CFR 1910.242 *Hand and portable powered tools and equipment*) would apply.
- D. Machines. The *Logging operations* standard requires that machines, including chippers, be equipped with guarding to protect employees from exposed moving elements (§1910.266(f)(8)). The standard also requires that chipper in feed and discharge ports be guarded to prevent contact with the knives, blade or disc (§1910.266(h)(4)(ii)). Under the Alternative Compliance Strategy, the employer would be required to comply with applicable General Industry standards on machinery and machine guarding (29 CFR Part 1910 Subpart O). If line clearance tree trimmers or qualified employees, as defined in §1910.269, are piecing out trees within 10 feet of an electric power line, the chipper requirements in §1910.269 would also apply (§1910.269(r)(2)). If the employees are unqualified employees, this activity would be prohibited by 29 CFR 1910, Subpart S.
- E. First-Aid Providers. The *Logging operations* standard requires that every employee be trained in first aid, including cardiopulmonary resuscitation (§1910.266(i)(7)), as many tree removal operations are performed in remote locations or in off-road areas where emergency services are not readily available.

Under the Alternative Compliance Strategy, an employer must comply with OSHA's *Medical services and first aid* standard (29 CFR 1910.151). Thus, when employers choose to comply with the Alternative Compliance Strategy, they would need to provide a person or persons trained to render first aid, if a

hospital or infirmary is not “in near proximity to the workplace” (1910.151(b)).

The purpose of the first-aid provisions in both §1910.266 and §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 employer must take appropriate proactive steps (such as making arrangements with emergency responders) to ascertain that emergency assistance will be readily available when an injury occurs. OSHA has long interpreted the term “in near proximity to the workplace” to mean that for life threatening (e.g., cardiac arrest, severe bleeding, suffocation) or permanently disabling injuries or illnesses, emergency care must be available within no more than 3 to 4 minutes from the workplace. In tree removal operations, regardless of the method, the possibility of life-threatening or severe injuries occurring is more than remote; therefore, on-site first aid providers or off-site emergency medical services must be available within 3 to 4 minutes.

- F. First-Aid Kits. The *Logging operations* standard requires that employers provide and maintain serviceable first-aid kits at each worksite where trees are being cut, at each active landing and on each employee transport vehicle (§1910.266(d)(2)(i)). Under the Alternative Compliance Strategy, employers must comply with 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)).

The *Logging operations* standard also specifies the minimum content of each kit, including various supplies for treating serious cuts, a blanket to cover a shock victim, and resuscitation equipment (§1910.266(d)(2)(ii) and Appendix A). Under the Alternative Compliance Strategy, employers must provide “adequate first aid supplies” as specified by §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.

- G. Fire extinguishers. The *Logging operations* standard requires that employers provide and maintain portable fire extinguishers on each machine and vehicle that meet the requirements of 29 CFR Part 1910 Subpart L. Although the requirements in 29 CFR 1910.157 Portable Fire Extinguishers do not apply to extinguishers provided for employee outdoor use, under the Alternative

Compliance Strategy employers would be required to suitable fire control devices, such as portable fire extinguishers, available at locations where flammable or combustible liquids are stored (29 CFR 1910.106(d)(7)).

- H. Flammable and combustible liquids. The *Logging operations* standard requires that flammable and combustible liquids 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, such as gasoline, in portable containers (§1910.266(d)(9)).) In addition to following the requirements of Subpart H, the *Logging operations* standard requires that flammable and combustible liquids not be transported in the occupied area of a machine or vehicle and that machines, vehicles and portable powered tools (e.g., chains saws) be shut off during fueling. Diesel-powered machines and vehicles may be fueled while they are at idle provided that continued operation is intended and the employer follows safe fueling and operating procedures. Under the Alternative Compliance Strategy, employers would have to comply with the applicable requirements of Subpart H, including §1910.106(d)(7) discussed above.
- I. Explosives and blasting agents. The *Logging operations* standard requires that explosives and blasting agents be stored, handled, transported and used in accordance with the requirements of 29 CFR Part 1910 Subpart H. (29 CFR 1910.109 addresses the storage, transportation and use of explosives and blasting agent.) The *Logging operations* standard also requires that explosives and blasting agents shall only be handled and used by designated persons and shall not be transported in occupied area of a machine or vehicle. Under the Alternative Compliance Strategy, employers would be required to comply with the applicable requirements Subpart L, including §1910.109.

## APPENDIX A – Practical Examples

### Example #1 – Removing a Single Tree--Piecing Out

*An employer is removing a single tree at a worksite solely by piecing out the tree in sections. What standards would apply in this scenario?*

Under this scenario the employer has two options. The employer may follow the *Logging operations* standard in any tree removal operation. Alternately, in this type of tree removal operation the employer may choose to comply with the Alternative Compliance Strategy described in this instruction. This would require compliance with all applicable General Industry standards, as well as Section 5(a)(1) of the OSH Act.

### Example #2 – Removing a Single Tree--Cutting at Stump

*An employer is removing a single tree by cutting the whole tree down at once at the stump. What standards would apply in this scenario?*

In this situation, the employer must comply with the *Logging operations* standard in its entirety and other applicable General Industry standards, such as §1910.269 (if the employees are line-clearance tree trimmers or qualified employees), or §1910.333 (if the employees are unqualified employees), if the tree removal operation is within 10 feet of an electric power line.

### Example #3 – Removing a Single Tree at a Residential Worksite

*A company is removing a single tree in a residential neighborhood. What standards apply in this scenario?*

Determining what standards apply depend on the method the employer uses to remove the tree, not the location of worksite. If the employer is cutting down the whole tree all at once at the stump, §1910.266 (plus applicable General Industry standards) would apply. The employer would not have the option of following the Alternative Compliance Strategy. If the employer removes the tree solely by piecing out, the employer would have the option of following the *Logging operations* standard (plus applicable General Industry Standards) or the Alternative Compliance Strategy outlined in this instruction. Regardless of the method of removal, if any part of the tree is within 10 feet of an electric power line, then the employer also would be required to comply with §1910.269 (if the employees are line-clearance tree trimmers or qualified employees) or §1910.333 (if the employees are unqualified employees), whichever is applicable.

### Example #4 – Multiple Trees

*A homeowner hires a company to remove three trees on her property. Based on the location of the trees and other factors, the employer decides to remove all three trees solely by piecing them out. What standards would apply in this scenario?*

Since the employer in this scenario is removing all three trees solely by piecing them out, the

employer would have the choice of following either the *Logging operations* standard or the Alternative Compliance Strategy outlined in this instruction. It is not the number of trees that determines which standards apply. Rather, it is the method the employer chooses to remove the trees.

#### Example #5 – Mixed Tree Removal Methods – Multiple Trees

*A homeowner hires an employer to remove three trees on his property. The employer is able to cut down one tree at the stump, but decides that the two other trees must be removed solely by piecing. What standards would apply in this scenario?*

If the employer uses multiple methods to remove trees (cutting at the stump and piecing out) at one worksite, then the *Logging operations* standard as well as other applicable General Industry standards would apply to all tree removal operations at the worksite and to all associated activities there even if some trees are removed solely by piecing out. Application of the *Logging operations* standard to the entire worksite will ensure uniform protection for employees.

#### Example #6 – Mixed Tree Removal Methods - Single Tree

*For a variety of reasons, including space constraints, an employer removes branches (any portion up to and including all) in a piece-wise manner. After removing all or a portion of the branches, the employer chooses to cut down the remaining 15-foot tree trunk at the stump. What standards would apply in this scenario?*

Although a portion of the removal operation involves piecing out the tree, cutting down the remaining portion at the stump, even if that is only a bare trunk, would still trigger the requirements of §1910.266 (plus applicable General Industry Standards). The Alternative Compliance Strategy would be an option if the length of the tree trunk or any segment of the tree trunk that is cut does not exceed six feet in length.

#### Example #7 – Adjacent Worksites

*An employer is hired to remove trees on two adjacent properties. The properties are owned by two different individuals and two separate contracts are executed. On one property, the employer removes the trees solely by piecing them out. On the adjacent property, the employer is able to cut down the trees at the stump. What standards would apply in this scenario?*

Although the two properties are adjacent, there are two different separate contracts with two land owners. Therefore, there are two different and independent worksites. As such, the tree removal operations at one worksite would not determine what standards would apply to the tree removal operations at the adjacent worksite. The employer would have the option of following the Alternative Compliance Strategy at the first worksite, but would be required to comply with the *Logging operations* standard (plus applicable General Industry Standards) at the adjacent one.

### Example #8 – Tree Removal for Line Clearance

*An employer is in the process of widening a right-of-way for electric power lines. The project involves removing dozens of trees over a long distance that are within 10 feet of the power lines. The employees are line-clearance tree trimmers, removing the trees by cutting them at the stump. What standards would apply in this scenario?*

Based on the method of removal, the employer would be required to comply with the *Logging operations* standard (plus applicable General Industry Standards). Moreover, since the trees are within 10 feet of the electric power lines, the *Electric power generation, transmission, and distribution* standard (if the employees are line-clearance tree trimmers or qualified employees) or §1910.333 (if the employees are unqualified employees), whichever is applicable, also would apply to address the electrical hazards associated with the tree removal operation.