

## TREE TRIMMING OPERATIONS, 16VAC25-73

### 16VAC25-73-90. Work procedures.

#### E. Tree removal.

1. Before beginning any tree removal operation, the chain-saw operator and/or crew leader shall carefully consider all relevant factors pertaining to the tree and site and shall take appropriate actions to ensure a safe removal operation. The following factors shall be considered:

- a. The area surrounding the tree to be removed, including nearby trees;
- b. Species and shape of the tree;
- c. Lean of the tree;
- d. Loose limbs, chunks, or other overhead material;
- e. Wind force and direction;
- f. Decayed or weak spots throughout the tree (be aware of additional hazards if these conditions exist in the hinge area);
- g. Location and means to protect other persons, property, and electrical conductors;
- h. Size and terrain characteristics or limitations of the work area; and
- i. Evidence of bees or wildlife habitation in the tree.

2. Work plans for removal operations shall be communicated to all workers in a job briefing before commencing work.

3. Workers not directly involved in the removal operation shall be clear of the work area, beyond the length of the tree, unless a team of workers is necessary to remove a particular tree.

4. A planned escape route for all workers shall be prepared before cutting any standing tree or trunk. The preferred escape route is 45 degrees on either side of a line drawn opposite the intended direction of the fall. Obstructions shall be cleared along the escape path. The chain-saw operator shall use this path for egress once the cut has been completed.

5. When it is necessary to shorten or remove branches before removing the tree, the arborist shall determine whether the tree can withstand the strain of the lowering procedures. If not, other means of removing the tree shall be considered and used.

6. The crew leader shall determine the number of workers necessary for tree removal operations.

7. The crew leader shall develop a work plan so that operations do not conflict with each other, thereby creating a hazard.

8. Climbing spurs shall have gaffs of a type and length compatible for the tree being climbed.

9. Wedges, block and tackle, rope, wire cable (except where an electrical hazard exists), or other appropriate devices shall be used when there is a danger that the tree or trees being removed may fall in the wrong direction or damage property. All limbs shall be removed to a height and width sufficient to allow the tree to fall clear of any wires and other objects in the vicinity.

10. Tackle blocks and pulleys and connecting links shall be inspected immediately before use and removed from service if found to be defective.

## TREE TRIMMING OPERATIONS, 16VAC25-73

### 16VAC25-73-90. Work procedures., CONTINUED.

#### E. Tree removal, CONTINUED.

11. Workers returning to the work area shall not enter until the chain-saw operator has acknowledged that it is safe to do so.

12. When a pull line is being used, workers involved in removing a tree or trunk shall be clear by a minimum of one tree length.

13. All workers other than the one engaged in manual land-clearing operations shall be at least two tree lengths away from the tree or trunk being removed. This requirement does not apply in the presence of site restrictions, such as waterways or cliffs. Other arborists/workers shall be beyond the trees' striking range and at a distance as close to twice the tree's height as possible.

**NOTE:** This regulation does not apply to tree removal activities where the primary objective is land clearing in preparation for construction, real estate development, or other related activities, unless directly supervised by a certified arborist. Such activities are covered by 16VAC25-90-1910.266.

14. Notches shall be used on all trees and trunks greater than five inches (12.7 cm) in diameter at breast height.

15. Notches and back cuts shall be made at a height that enables the chain-saw operator to safely begin the cut, control the tree or trunk, and have freedom of movement for escape:

- a. The notch cut used shall be a conventional notch, an open-face notch, or a Humboldt notch.
- b. Notches shall be 45 degrees or greater and large enough to guide the fall of the tree or trunk to prevent splitting.
- c. Notch depth shall not exceed one-third the diameter of the tree.
- d. The back cut shall not penetrate into the predetermined hinge area.

16. With a conventional notch/Humboldt notch, the back cut shall be 1 to 2 inches (2.5 to 5 cm) above the apex of the notch to provide a platform to prevent kickback of the tree or trunk. For an open-face notch (more than 70 degrees), the back cut shall be at the same level as the apex of the notch.

17. The two cuts that form the notch shall not cross at the point where they meet.

18. Before making the back cut, there shall be a command such as "stand clear" from the arborist operating the chain saw and a response such as "all clear" from the workers supporting the removal operation. Pre-arranged, two-way hand signals may also be used in accordance with subdivision B 1 of this section. Only designated persons shall give such signals. All workers in the vicinity shall be out of range when the tree or trunk falls. Visual contact shall be maintained with the tree or trunk until it is on the ground.

19. When the back cut has been completed, the chain-saw operator shall immediately move a safe distance away from the tree or trunk using the planned escape route.

20. Workers shall not approach mechanical tree removal or mechanical re-clearing operations, such as with a rotary or flail mower, until the operator has acknowledged that it is safe to do so.