

KENTUCKY HAZ ALERT

To prevent tree trimming and removal fatalities, workers should:

- Perform a hazard assessment of the work area before starting work
- Appropriate personal equipment should be worn at all times while trimming or removing trees
- Determine the tree's felling direction. Address forward lean, back lean, and/or side lean issues
- All trees and limbs should be inspected for structural weakness before work commences
- Have an escape route planned

WORKERS KILLED DURING TREE TRIMMING / REMOVAL

From March 2010 through March 2011, four workers were killed as a direct result of being struck by a tree trunk or limb. Following are the case descriptions for the four worker deaths:

Case 1: A 25-year-old male was cutting a tree to sell as firewood. In the process of cutting the tree, the victim was fatally struck in the abdomen and chest.

Case 2: A 46-year-old male was trimming trees on a farm. The victim was struck by a limb while cutting branches from a tree. The victim was unconscious at the scene, and airlifted to a medical facility, where he died one day later.

Case 3: A 26-year-old male was removing trees for a coal company. The victim was working on a mountain with a 45 degree



grade. One tree was cut and began to fall. The tree kicked back while falling, striking the victim in the head. The victim was killed instantly, suffering skull and neck fractures.

Case 4: A 38-year-old male was trimming trees for a local power company. The victim was cutting down a cherry tree, apparently with a rotten core. The tree split and, for unknown reasons, the victim ran toward the tree. Part of the tree crushed the victim.

PERSONNEL SHOULD WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT WHILE PERFORMING TREE REMOVAL OR TRIMMING ACTIVITIES.

PERFORM A HAZARD ASSESSMENT OF THE WORK AREA BEFORE STARTING WORK

A jobsite hazard assessment should be part of an applicable written safety program based on ANSI standard Z133.1-2006, American National Standard

APPROPRIATE PERSONAL EQUIPMENT SHOULD BE WORN AT ALL TIMES WHILE TRIMMING OR REMOVING TREES

It is believed that the decedents were not wearing helmets in the above described incidents. OSHA standard 1910.135 states that head protection will be worn to protect workers from falling objects. ANSI standard Z89.1-2003 provides guidance on head protection for workers.

DETERMINE THE TREE'S FELLING DIRECTION. ADDRESS FORWARD LEAN, BACK LEAN, AND/OR SIDE LEAN ISSUES

Visualize the path of the tree. Try to avoid having the tree fall on other trees or objects. It's generally safer to have a tree fall in the direction it is leaning. If the tree leans too far, the butt of the tree can kick backward. Never stand in back of a tree as you are cutting. Fell a tree in a direction which will reduce rolling or sliding. A tree leaning away from the direction you intend it to fall is called back lean.

ALL TREES AND LIMBS SHOULD BE INSPECTED FOR STRUCTURAL WEAKNESS BEFORE WORK COMMENCES

Stem factors such as splits, cracks, wounds, decay, and tree species should be considered when performing tree trimming operations. Branch factors such as cracks, splits, decay, dead branches, and weak crotches should also be examined. As part of the inspection, a pull test should be performed: the arborist sets a climbing line in the tree and pulls on the tree from all different directions to observe movement.

HAVE AN ESCAPE ROUTE PLANNED

You may have to make a decision in a split second. Always plan your escape route in advance. Never turn your back on a falling tree. Move away from the tree at 45 degrees from the line of the fall. Do not approach the tree. Make sure your escape path is clear of debris. If there is no clear escape path, work with professionals who deal with hazardous tree removal.

References:

1. NIOSH Alert: Preventing Falls and Electrocutions During Tree Trimming, DHHS publication 92-106.
2. Kentucky FACE Report #09KY059– Arborist Dies After Fall From Tree.
3. Kane, B. Pre-climb tree hazard assessment. Tree Care Industry April 2006.

Resources:

1. OSHA Quick Card: Tree Trimming & Removal Safety Tips. <http://www.osha.gov/Publications/3301-10-05-english-06-27-2007.html>
2. Fatal Injuries Among Landscape Services Workers. <http://www.cdc.gov/niosh/docs/2008-144/pdfs/2008-144.pdf>
3. Tree Care Industry Association. Tree Care Industry Association 136 Harvey Road, Suite 101, Londonderry, NH 03053, phone: 603-314-5380 603-314-5380 or Toll-free: 800-733-2622 800-733-2622

For more information, contact:

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<http://www.kiprc.uky.edu/face.html>

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