

that "saves" the tree but also initiates decay processes may cause that tree to become a hazard to property and people later. This could occur, for example after improper filling of a cavity.

In the end, what is done will depend mostly on the wishes of the tree owner; but in many cases, the tree owner depends on the professional tree expert. And the tree expert should depend on research for sound information. Researchers in turn must be aware of the literature and constantly on the alert to treatments that could harm, rather than help, the tree.

### Literature Cited

- Campbell, W.A. 1939. Damage from increment borings. Bur. Plant Ind. Civ. Conserv. Corps Rep. 6 p.
- Clark, F.B. 1966. *Increment borers cause serious degrade in black walnut*. J. For. 12: 814.
- Collins, J.F. 1934. Treatment and care of tree wounds. U.S. Dep. Agric. Farmers' Bull. 1726. 38 p.
- Hepting, G.H., E.R. Roth, and B. Sleeth. 1949. *Discolorations and decay from increment borings*. J. For. 47: 366-370.
- Houston, D.R. 1971. *Discoloration and decay in red maple and yellow birch: reduction through wound treatment*. For. Sci. 17: 402-406.
- Lorenz, R. 1944. *Discolorations and decay resulting from increment borings in hardwoods*. J. For. 42: 37-43.
- Marshall, R.P. 1932. *Some experimental treatments of shade tree wounds*. N.J. Fed. Shade Tree Comm., Shade Tree 5: 3 p.
- Marshall, R. 1935. *Scientific aspects of handling tree cavities*. Nat. Shade Tree Conf. Proc. 11: 51-55.
- Marshall, R.P. 1951. Care of damaged shade trees. U.S. Dep. Agric. Farmers' Bull. 1896. 34 p.
- Marshall, R., and Alma Waterman. 1948. Common diseases of important shade trees. U.S. Dep. Agric. Farmers' Bull. 1897. 53 p.
- May, C., and J. Palmer. 1959a. *Effects of asphalt varnish fungicide mixtures on growth in pure culture of some fungi that cause decay in trees*. Plant Dis. Rep. 43: 955-959.
- May, C., and J. Palmer. 1959b. *Effect of selected fungicide asphalt mixtures on the growth of Ceratocystis flmbriata f. platani*. Plant Dis. Rep. 43: 565-566.
- Neely, D. 1970. *Healing of wounds on trees*. Am. J. Hort. Sci. 95: 536-540.
- Shigo, . *Some new ideas in tree care*. J. Arboric. 1:234-237.
- Toole, E.R., and J.L. Gammage. 1959. *Damage from increment borings in bottomland hardwoods*. J. For. 57: 909-911.

Northeastern Forest Experiment Station  
Forest Service, U.S. Dep. Agriculture,  
Upper Darby, Pennsylvania

---

## SAFETY AND PRECAUTIONS AROUND OVERHEAD WIRES AND UNDERGROUND CABLES<sup>1</sup>

by Richard E. Abbott

The Occupational Safety and Health Act of 1970 (Williams-Steiger Act), Public Law 91-569, became effective April 28, 1971. Very few pieces of legislation have affected so many people, employers and others, in its efforts to achieve safer and healthier work places throughout the nation and to preserve our human resources. Every employer engaged in a business affecting commerce is required to furnish a place of employment free from recognized hazards that are likely to cause death or physical harm.

The term "employer" does not include federal, state or local government employers.

The Secretary of Labor is required to promulgate mandatory federal safety and health requirements applicable to all employers.

Three types of safety standards are provided for in the act:

**1. Interim Standards (Section 6A).** Congress recognized that development of safety and health standards for all industries is a tremendous undertaking. Consequently, to implement the legislation for two years until April 18, 1973, the Secretary of Labor could adopt existing national consensus safety and health standards and established federal standards by publishing in the Federal Register without going through hearings and review procedures. American National Standards Institute (ANSI) and National Fire Protection Association are examples of recognized national consensus standard-writing organizations.

---

1. Presented at the annual conference of The International Society of Arboriculture in St. Louis, Missouri in August 1976.

These existing OSHA regulations (former national consensus standards) have been criticized for lack of clarity, over-regulation irrelevant to worker safety (including incorporation of requirements for protection of the general public and property—both outside OSHA's scope), conflicts, and unnecessary specifications.

They have placed an undue burden on the small businessman.

Criticism has come from industry, labor, Congress, OSHA Review Commission and OSHA enforcement personnel as well.

#### WHAT WENT WRONG?

Many of the national consensus standards adopted under Section 6A were out of date, irrelevant, ambiguous, and were written only as guidelines with no consideration that they would ever become safety regulation laws of the land.

We are all familiar with the fiascos, split toilet seats, ice in the drinking water, etc. The national consensus-standard writing organizations must share the blame for not keeping their standards current.

**2. Permanent Standards (Section 6B).** Ordinarily, the Secretary of Labor will appoint an Advisory Committee, receive their recommendations, publish them in the Federal Register, and allow a 30-day comment period or a request for a public hearing.

These standards must be based on research, demonstrations, experiments, latest scientific data, feasibility and experience.

It is estimated by OSHA standard development officials that up to two years may be required to follow all the review, comment and hearing procedures. At a meeting with OSHA officials in Washington on May 27 and 28, 1976, it was indicated that OSHA can have the latest National Electric Safety Code in effect for only one year. This code is revised every three years. For OSHA to adopt it requires two years of hearings.

Congress, in establishing section 6B, severely restricted the options available to OSHA and provided a long, involved, tedious comment, hearing and review process.

Truly, an unworkable procedure has been specified! Legislative action is necessary to streamline and simplify standard development procedures if OSHA is ever to respond effectively.

**3. Emergency Temporary Standards** are established when necessary to protect employees from the dangers of exposure to toxic agents or substances, physical harm or new hazards. These must be replaced by permanent standards developed under the Section 6B procedures (hearing, comment and review) as soon as possible.

Special criteria are established for setting permanent standards dealing with toxic material or harmful physical agents. In some cases, a permanent standard must require the use of labels or other warnings to alert employees to danger and proper methods of use or exposure.

OSHA is inaugurating a new procedure to revise certain of its safety standards to make them more relevant. This procedure was announced in the Federal Register on April 23, 1976. It is designed to expand the opportunity for industry, labor and public to participate at the earliest stages of OSHA's decision-making process. Walking-Working Surfaces (Ladders) Docket D is being developed under the new procedures. Meetings for interested parties to comment were held in San Diego, Chicago, New Orleans and New York City during June and July.

Before issuing a new safety standard now, OSHA must prepare for the Federal Office of Management and Budget an "inflation impact" statement.

#### **Where is the Arboricultural Industry Today and What is in the Future?**

ANSI Z-133.1 "Safety Standards for Tree Pruning, Trimming, Repairing or Removal: and the Equipment Used for Such Operations" was developed by a committee representing all segments of the arboricultural industry under procedure established by the American National Standards Institute.

Portions of Z133.1 were adopted under the "Telecommunications" Safety and Health Standard 29 CFR Part 1910—Federal Register Volume 38, No. 166, August 28, 1973.

A voluntary committee under the auspices of OSHA is developing a standard for operation and maintenance work on overhead electric lines. This committee has representation from Edison Electric Institute, International Brotherhood of Electrical Workers, Utility Workers of America,

National Electrical Contractors Association, telephone industry, governmental power systems, REA's, etc.

Portions of Z133.1 as they relate to work around energized conductors, brush chippers, chippers, sprayers and related equipment, stump cutters, power saws, back-pack power units and personal climbing equipment are included in the standard. This will supplement the portions already included under the "Telecommunications" Part 1910.

The standard ½ inch, 3 or 4 strand first grade manila climbing rope with a nominal breaking strength of 2,385 lbs. is specified under personal climbing equipment. This reduction in breaking strength from 2,650 lbs. to 2,385 is based on a reduction in rating by the Rope Institute.

Z133.1 should be modified to comply with the reduced nominal breaking strength of the ½ inch manila rope.

OSHA, at the May meeting, identified the following safety standard development priority areas:

A. Agriculture (personal protective equipment, power and portable power tools and field sanitation)

B. Construction safety

I would anticipate that regulations developed in these areas will affect our industry. OSHA has indicated these regulations are due by late this year or early next year.

Mobile Aerial Devices, Diggers-Derricks Council (MADDDC), has recently established standards for signs on aerial devices to protect the manufacturers from product liability litigation. MADDDC members feel product liability claims can force them out of business.

The wording, size and design of these signs has caused considerable concern in the utility industry.

An Edison Electric Institute committee met with the MADDDC group and their counsel and reached a compromise on the signs installed on aerial devices for them. However, this doesn't apply to the tree contractor.

Some utilities have objected to tree contractors aerial devices working on their property with these signs.

Robert Felix, Executive Secretary, National Arborist Association, is contacting the EEI group to determine if the variance can be adapted to the line clearing contractors' aerial devices also.

Utilities owning underground facilities in many states are establishing special telephone numbers to call before doing any digging in the vicinity of underground facilities. Some states have gone a step farther and established regulations requiring notification of gas, water, telephone, etc., two or more days prior to doing any digging.

The Z133.1 Committee is prepared to assist any tree company or individual on the interpretation of that safety standard. A subcommittee of the group has testified on behalf of a tree company cited by OSHA enforcement people for not wearing new nylon ballistic leggings while running a chain saw. If you have an unrealistic OSHA citation, contact either the International Society of Arboriculture, National Arborists Association or Z133.1 Committee Chairmen and they will assist you if possible, provided you are unjustly cited by OSHA.

*The Davey Tree Expert Company  
Kent, Ohio*

---

## ABSTRACT

Anonymous. 1976. **Detecting/controlling tree diseases and pests: ornamental crabapples.** Grounds Maintenance 11(6): 42, 45-47, 50-51.

Among the most useful and least troublesome of flowering trees, ornamental crabapples include at least 200 named varieties with new types being added each year. Common insect pests and diseases of crabapple are described along with their controls. In addition, tables list spray programs which can be used to combat these problems. However, most of the insects and diseases listed do not cause serious damage every year, and it is not necessary to spray annually for their control.