Northwest Forest Worker Safety Review

News of regulations, research, developments, and coming events
compiled by the Pacific Northwest Agricultural Safety and Health Center

Issue 3 January 2005

Danger Tree Guidelines Updated

Newly written guidelines regarding reserve trees in Oregon and Washington are due out early in 2005. They are particularly timely given the large number of substantial fires lately. Both states have safety codes that deal with danger trees. The new guidelines will not replace the codes but will provide guidance on mitigation. The definition of and distinctions between hazard trees hasn't changed, but evaluating how to deal with the danger has. The emphasis is on trying to mitigate the situation without exposing a cutter to danger.

Rick Toupin, a regional logging engineer with the US Forest Service, is leading the rewriting effort, working with people from the Washington Department of Labor and Industries, Washington Contract Loggers Association, Oregon OSHA, Associated Oregon Loggers, Oregon Department of Transportation, Oregon Department of Forestry, Bureau of Land Management, US Forest Service, and Oregon State University.

Current guidelines for choosing reserve trees focus primarily on logging. The new guide is being rewritten to include tree planting and other nonlogging activities and to update the illustrations to include current harvesting practices.

Mike Lulay of Oregon OSHA says the changes "recognize that there are a lot more activities that happen in our forests than falling, bucking, and hauling timber. Maybe only a third or so of people working in the woods are connected with logging. These guidelines consider that lots of agencies have liabilities, and several of them have regulations. They bring the whole situation up-to-date and consistent with all the regulations, so you don't have to try to decide which regulation to follow."

For more information on *Guidelines for Selecting Reserve Trees*, contact:
Rick Toupin, US Forest Service, rtoupin@fs.fed.us, 503-808-2928.

Inside

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Editorial

Treating Stumps with Herbicides… Legally

***Paul Figueroa**, Investigator, Pesticide Compliance Program, Washington Department of Agriculture*

Sprouts from hardwood cut stumps can quickly gain dominance over newly planted seedlings and hinder reforestation. Treating these stumps after felling and before they sprout eliminates the need of having a separate crew back into the stand later to apply herbicides. A little extra work by the logger upfront saves the owner a larger expense down the road. It just makes good sense.

A common problem in the logging industry, especially with contractors, however, results from loggers illegally treating stumps with herbicides. To do so without breaking the law, loggers must be licensed applicators and follow herbicide safety requirements.

Timber owners and loggers need to understand that persons applying herbicides when they are not properly licensed are in violation of state agricultural licensing and pesticide application laws, labor and industry regulations under OSHA, and EPA Worker Protection Standard rules. Both the landowner and logger can be held liable for all such violations. These licensing and WPS rules are in place to protect the owner, the environment, and the worker from danger or problems.

Common herbicides used for stump treatments can be harmful if not used properly. Tordon® (picloram) and Garlon® (triclopyr) are commonly used for controlling big leaf maple stump sprouts. These chemicals are corrosive, and the labels require specific protective equipment for the exposed skin and the eyes. The usual gloves and eyewear worn by loggers do not adequately protect against these chemicals.

If loggers want to provide the service of treating stumps, they need to be licensed through their state department of agriculture. Contact the proper state authorities for technical assistance and help with licensing and training. In Washington contact: Paul Figueroa, 360-902-2068, pfigueroa@agr.wa.gov.

A Healthier and Safer Industry

This annual review is one way the PNASH Center contributes to improving the health and safety of forest workers in the Northwest. While PNASH publishes this review, we hope that employers and employees in the timber industry and health and safety professionals in and out of government agencies treat this publication as theirs.

We solicit your comments on how we might improve our effort. If you would like to submit a guest editorial on a forest safety issue, let us know. To add names to our distribution list, suggest ideas for future issues, or list events, please contact Marcy Harrington at 206-685-8962, 1-800-330-0827, or marcyw@u.washington.edu.

Best wishes for a safe 2005 from the folks at PNASH.

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is produced by the Pacific Northwest Agricultural Safety and Health Center (PNASH) at the University of Washington's School of Public Health and Community Medicine.

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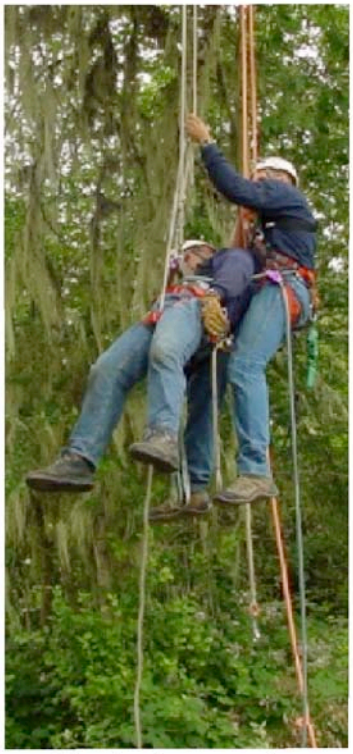
Climbing Options to Be Expanded, Clarified



Simulated rescue using climbing saddle.

Oregon safety regulations regarding tree climbing equipment are due to change, or at least be clarified, in the next year or two. The way the rules are currently written, the traditional belt and spur method is the only named means in the text of the rules. Other unnamed methods are allowed if they are "as effective." Ambiguity fills the vacuum and will be eliminated by the new guidelines.

Modern climbing techniques and devices, such as climbing saddles, have proven to be as effective as belts and spurs and make much better sense ergonomically. New regulations will draw from the USDA Forest Service *National Tree Climbing Guide*, recently revised and due to be reissued in early 2005. Rock climbing techniques and equipment developed around the world that can be adapted to logging are covered.

A new style climbing saddle from Sherrill Aborist Supply.

Region VI Forest Service employees have led the effort to establish climbing safety standards and policy, and the Guide is the culmination of those efforts. Jerry Berdeen, Regional Coordinator for the National Tree Climbing Program, stresses that "there are lots of people climbing trees beyond those limbing, topping, or rigging for a logging operation." He mentions cone picking, scion collection (for tree propagation), and controlled pollination as three tasks tree climbers commonly perform. The new guide is written with these climbers, as well as loggers, in mind.

Changes Proposed for Wildland Firefighter Regs

Oregon OSHA is completing the revision of the wildland firefighting requirements found in Division 7, Forest Activities, Subdivision N. It expects to conduct public hearings on the proposed changes in March or April, with implementation scheduled for June 2005.

The current rules make a distinction between loggers and professional wildland firefighters based on different training requirements. Those distinctions are gone in the new regulations, which will identify the jobs, address appropriate training, set provisions for emergency help, establish procedures and conditions for dealing with fires, and clarify responsibilities.

The proposed Oregon rules will set basic minimum standards for all wildland firefighters. Current interagency contracts require additional training beyond these minimum standards.

Top five standards violated Oregon OSHA logging inspections, 2003

- Personal protective equipment: chainsaws
- Material stored near pinch point
- Protective equipment maintenance
- First aid training
- Minimum first aid supplies

Source: Research & Analysis Section, Oregon Department of Consumer and Business Services, 11/04

Research

Synthetic Rope Is Research Success Story


OSU technician testing synthetic rope.

The term for translating research into practice is R2P, and an effort from Oregon is a dramatic R2P success story. Projects funded by about $450,000 in OR-OSHA's Worksite Redesign Grants have produced significant results. Researchers at Oregon State University have developed end connectors and terminations and tested and promoted synthetic rope as strong as steel wire rope at the same diameter, but weighing about 90% less. It is replacing wire rope in many logging and trucking applications and has demonstrated ergonomic improvements to workloads, strains, and fatigue in research trials. More than 100 firms are now using synthetic ropes.

The new rope can't be used everywhere steel rope can. You can't burn it over rocks, for instance. But the tremendous gain in productivity where it can be used more than repays the higher initial investment. Rigging is a good example. One person can rig tail trees and intermediate support trees in one trip carrying the rope in a backpack. A logger doesn't have to make five or six trips up and down a hillside, hauling heavy cable. This makes a huge difference for the worker in terms of ergonomics, safety, and productivity.

Dr. John Garland and his research colleagues of the Forest Engineering Department of Oregon State University and industry cooperators have made their five years of synthetic rope research available on the OR-OSHA Web site, www.orosha.org/grants/osuforest/osuoverview.html.

For more information contact: John Garland, Forest Engineering Department, Oregon State University, 233 Peavy Hall, Corvallis, OR 97331, 541-737-3128, john.garland@oregonstate.edu. Garland is continuing his research on new synthetic ropes and applications for the logging industry.

Wildland Firefighter Injury Study Completed

Fire season 2000 was one of the most serious in recent memory, with 122,827 fires burning a record 8,422,237 acres across the US. At the peak of the fires in the western states—on August 29, 2000—more than 28,400 people were involved in suppressing fires. Two of the largest of the fires that year—the Clear Creek fire in Idaho and the Valley Complex fire in Montana—together burned more than 570,000 acres.

In an effort to reduce wildland firefighter injury and illness, PNASH and the Blackbull Wildfire Services worked with the US Forest Service to study injuries recorded during those two large fires. The work, completed last spring, analyzed whether types of individuals, environmental factors, fatigue, and fitness levels affected the numbers and types of injuries.

The study recommended that:

- Even though all individuals working as firefighters must pass the Work Capacity Test at the "Arduous" level on a yearly basis, additional work hardening efforts such as those used by the Type 1 Interagency Hotshot Crews should be encouraged among all firefighters.
- Additional emphasis should be focused on the Incident Base Camp and the crews and support personnel working there.
- The injuries in the fire camp reflect a possible need to have a minimal fitness level for all individuals who go on fires in any capacity.
- Further research should be conducted in several areas, including examination of other large, long-duration fires, such as Oregon's 2002 Biscuit Fire.

For more information, contact: Dick Mangan, Principal, Blackbull Wildlife Services, Missoula, Montana, 406-543-0013, blackbull@bigsky.net. Mangan is also the 2004-2005 president of the International Association of Wildland Fire.

Partnerships to Reduce Injuries and Illnesses in Alaska Logging

New partnerships are being formed among Alaska's timber industry and its regulators. The Alaska Department of Labor and Workforce Development, Division of Labor Standards and Safety, Occupational Safety and Health Consultation and Training (AKOSH) is seeking partnerships among Alaska Forest Association (AFA) members, logging and sawmill companies, insurance companies, and timberland owners. The partners must adhere to progressive requirements for managing site safety and health. Safety programs will be established and maintained by approved employers. AKOSH consultation will verify that partnership requirements are met and program goals are being attained by providing free consultations and training sessions.

The project goals are to:

- Reduce injuries and illnesses in forest products operations in Alaska by developing partnerships with approved employers.
- Improve employer safety and health programs.
- Better use AKOSH resources through partnerships to reduce the need for enforcement visits while improving worker safety and health.
- Provide maximum leverage of resources by promoting more active employer action and responsibility in safety and health management.
- Promote a cooperative relationship among AFA members, insurance companies, logging and sawmill operators, land owners, and AKOSH.
- Enhance employee involvement in company safety and health.
- Reduce costs and efficiency losses related to injuries and illnesses.

In 2004, three companies began safety partnerships: White Spruce Enterprises Sawmill, Granite Mountain Alaska Lumber, and Tongass Cutting.

AKOSH invites others to join these industry leaders and to improve workplace safety and health in Alaska's forest and wood products industry. For more information, contact Phil McElroy 907-225-7098, or Cliff Hustead 907-269-4957 or toll-free in Alaska 800-656-4972, cliff_hustead@labor.state.ak.us.

OSHA Renews Partnership with Potlatch Corporation

Last year, the US Labor Department's Occupational Safety and Health Administration (OSHA) renewed its partnership with the Potlatch Corporation of Lewiston, Idaho, to improve worker safety and health in the logging industry.

OSHA health and safety partnerships are part of the department's ongoing efforts to improve the health and safety of workers through cooperative initiatives with companies and trade associations. The partnership renewal recognizes Potlatch Corporation's continued outstanding oversight of contract loggers under OSHA's Logging Partnership Project.

Although improvements in logging safety have been realized in recent years, logging remains among the nation's most dangerous occupations.

"Logging employers who practice sound safety and health management principles experience notable improvements in their safety performance," said Richard Terrill, OSHA's regional administrator in Seattle. "Potlatch is among the progressive owners of industrial timberland who have worked hard to improve logging safety among their contract logging workforce."

In November 2000, Potlatch became the first company in the Labor Department's Northwest Region to receive partnership status. OSHA has renewed the partnership after evaluating the company and finding that it continues to have a strong commitment to health and safety, including training and education, record keeping and hazard analysis, and other initiatives that protect the safety and well-being of its employees.

Since 2001, the Labor Department's Occupational Safety and Health Administration has created more than 80 partnerships to prevent accidents and promote job health and safety. OSHA is dedicated to saving lives, preventing injuries and illnesses, and protecting the health and safety of American workers. For more information, visit www.osha.gov and click on "cooperative programs."

Forest Safety Task Force Exercises Muscle in British Columbia

The decade between 1993 and 2002 saw 250 forest workers die in British Columbia and 31,783 suffer injuries. In July 2003, BC's Minister of Skills Development and Labour, Graham Bruce, established the Forest Safety Task Force to find practical solutions to this problem. The group released its report in February 2004, calling for immediate and fundamental change in BC's forest sector. The report provides a step-by-step action plan for tackling the unacceptable rates of death and serious injury in BC's forests.

"There isn't a log out there that's worth anybody getting killed over. We've got to replace the inevitability of being injured with the notion that all injuries are preventable. We have to look differently at everything."

- Keith Rush, Interior logging manager and an adviser to the Forest Safety Task Force

The task force brought together senior representatives from large forestry employers, contractors, fallers, and labor unions. It concluded that there are many reasons why the industry's high rates of serious injury and death have been resistant to change—including human, economic, and regulatory factors—but the most significant may be the lack of a safety culture.

The report states that attitudes and behaviors must change, and the industry as a whole must agree that all deaths and serious injuries are preventable. "The people we talked with said that forestry is an inherently dangerous business, that accidents just happen," said Doug Enns, chairman of the Workers' Compensation Board and task force chair. "While it's true that working in the woods can pose risks, that doesn't justify unsafe work practices. All the members of the task force firmly believe that each and every workplace accident is preventable."

The task force's 20 recommendations include:

- Developing a sectorwide safety accord that will guide changes in attitude, procedure, and operation, resulting in a new safety culture.
- Creating an industry-owned and operated health and safety infrastructure that would include prequalification and certification of forest companies, contractors, and independent operators.
- Developing uniform training and certification standards for workers.
- Providing financial incentives for firms that adopt and operate according to a sectorwide safety model.

To make the task force recommendations a reality, industry has formed an operational group, the BC Forest Safety Council (BCFSC). It has developed a plan of action with the larger forest community to gather feedback, work through the recommendations, and implement changes to make BC's forests safer places to work.

In November, the BCFSC and the Workers' Compensation Board announced the implementation of the Faller Training Standard and Certification Program. It will require mandatory testing and a skills demonstration by experienced fallers. (There are about 4,000 fallers working in BC.) All experienced fallers must be certified by July 31, 2005; the cost of certification will rise as that date approaches. Beginning in 2005, new fallers will have to undergo a comprehensive training program in order to become certified. Those fallers who have their certifications will also be required to renew them on a regular basis in order to ensure they can continue to operate safely.

A complete copy of the Forest Safety Task Force's report is available on the Forest Safety Task Force Web site, www.forestsafetybc.com.

A Study of Logger Fatalities, 1992-2000

Last year, Doug Scott, a mine safety specialist with the NIOSH Spokane Research Laboratory, reported on the work he did for his Master of Public Health degree (see *Injury Prevention*, 2004; 10(4): 239-43). Scott analyzed 780 logger fatalities for a nine-year period and found that:

- Tree fallers suffered nearly 63% of all fatalities.
- The region where the fatality occurred and the size of the employer were not significant factors affecting tree faller fatalities.
- The Northeast and Midwest regions showed a higher percentage of fatalities compared with the South and West.
- The logger fatality rate for 1992-2000 decreased slightly from 1980-88.
- Tree fallers continued to be the group of loggers suffering the highest fatality rate.

2003 Oregon Logging Deaths Rise as Overall Workplace Fatalities Fall

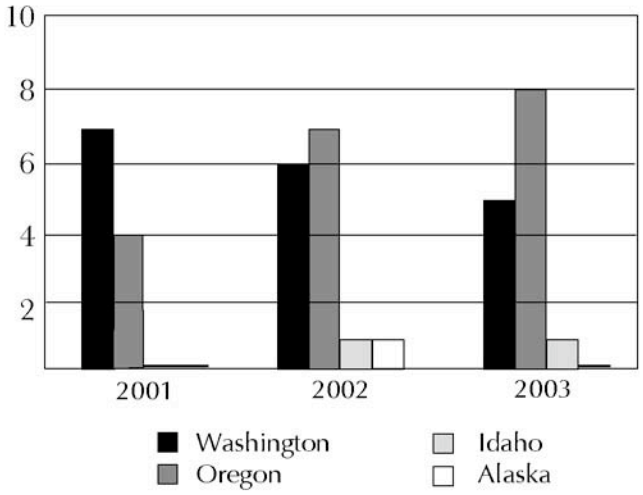
The Oregon Department of Consumer and Business Services reported that eight Oregon loggers died in 2003, marking the second consecutive year for increased fatalities. At the same time, Oregon's overall workplace fatality count dropped from 52 in 2002 to 41 in 2003 (the all-time low of 34 was set in 2001). The rise in logging deaths is striking because the logging workforce has declined so dramatically. The number of workers employed in logging fell from 13,000 in 1988 to 7,600 in 2002.

Workplace safety and industry analysts suggest that an aging workforce and an influx of inexperienced and untrained newcomers are factors in fatality rates. Three of the eight loggers who died had been on the job less than four months. At the other end, experience can breed overconfidence, and older workers have a lower survival rate following traumatic incidents. Four of the fatalities were at least 52 years old. What is clear is that a shrinking labor market means fewer qualified workers are available for employers to hire.

We're Number One Again, Dammit!

At 131.6 deaths per 100,000 workers, timber cutting has yet again proven to be the occupation with the highest fatality rate in the nation (the 2002 ratio was 118 per 100,000). According to the Department of Labor's annual Census of Fatal Occupational Injuries, 104 loggers lost their lives in 2003, the latest year for which complete statistics are available. This number is exactly the same as in 2002. More than 70% of the fatalities occurred when the victim was struck by a tree or branch.

Northwest Logging Fatalities, 2001-03



2005 Northwest Logging and Safety Events

January 15	Washington Logging Safety Conference St. Martin's College, Olympia, WA Washington Contract Loggers Association 800-422-0074
February 28 – March 3	Oregon Governor's Occupational Safety & Health Conference (GOSH) Theme: Advancing Industry Knowledge and Practices Portland, OR www.cbs.state.or.us/external/osha/conferences/index.html 503-378-3272
February 25-28	Oregon Logging Conference Theme: Today's Tools – Tomorrow's Healthy Forests Eugene, OR www.oregonloggingconf.com 800-595-9191
March 14-16	Alaska Governor's Safety and Health Conference Anchorage, AK www.labor.state.ak.us/lss/asac.htm 907-269-4922
September 13-16	Central Oregon Occupational Safety & Health Conference Eagle Crest Resort, Redmond, OR www.cbs.state.or.us/external/osha/conferences/index.html 503-378-3272
September 28-29	Washington State Governor's Safety and Health Conference Tacoma, WA www.lni.wa.gov/safety/traintools/govconf/default.asp
October 19-21	Southern Oregon Occupational Safety & Health Conference Smullin Center, Medford, OR www.cbs.state.or.us/external/osha/conferences.index.html 503-378-3272

Note: Additional courses are offered to members of state contract logging associations. Please contact your association for more information.

Logging Safety Information Resources

- National Timber Harvesting and Transportation Safety Foundation
  www.loggingsafety.com
  NEW VIDEO: Coaching the Professional Logger
- Logging Safety Research, NIOSH
  www.cdc.gov/niosh/injury/traumalog.html
- Logging Safety Recognition, Control, and Standards, OSHA
  www.osha-slc.gov/SLTC/logging/index.html
- Forestry Safety Topic Centre, British Columbia Workers' Compensation Board (BCWCB)
  http://forestry.healthandsafetycentre.org/s/Home.asp