FREP

REPORT SUMMARY #15

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WORKER SAFETY IMPACTS ASSOCIATED WITH LEGISLATION, POLICY, PLANNING AND IMPLEMENTATION OF FOREST HARVESTING ACTIVITIES IN BRITISH COLUMBIA

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In 2005, a high number of fatalities and serious injuries occurred in British Columbia's forest sector. Of the 50 fatality claims accepted by WorkSafeBC for this sector,[1] 33 deaths were recorded in the forestry and log-hauling categories. In response, the Forests and Range Practices Advisory Committee requested that the Forest and Range Evaluation Program (FREP) conduct an evaluation project to investigate some of the reasons behind these deaths and injuries.

This report summary presents a brief overview of the evaluation project's methodology, findings, and recommendations.

PROJECT OVERVIEW

A FREP project team examined the planning and design of partial cutting, wildlife tree retention, and forest road building in British Columbia to accomplish the following three objectives:

1. Identify and evaluate the causes of any impacts on worker safety related to these activities.

2. Identify whether the *Forest and Range Practices Act (FRPA)* or other legislation mandates unsafe practices or restricts the ability to implement safe practices.
3. Identify planning practices to eliminate or minimize the known safety-related impacts of these activities for potential inclusion in an Industry Recognized Practices (IRP) safety-planning handbook.

The project team used a three-pronged approach to meet these objectives. First, an analysis of a WorkSafeBC database describing accepted injury claims was undertaken to provide context and guide the development of the evaluation project. Second, a safety survey was developed for distribution to forestry workers. Third, Ministry of Forests and Range (MFR) policy specialists conducted an analysis of relevant legislation and regulations pertaining to worker-identified safety-related issues.

1 Sector claims include those fatalities and injuries recorded in the forestry, wood and paper products, and log-hauling categories.

The FREP Mission:
To be a world leader in resource stewardship monitoring and effectiveness evaluations; providing the science-based information needed for decision-making and continuous improvement of British Columbia's forest and range practices, policies and legislation.
http://www.for.gov.bc.ca/hfp/frep/index.htm

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RESULTS

The WorkSafeBC database analysis provided a snapshot of prevalent safety issues over a 6-year period. The database contained descriptions of more than 12 000 forest-sector accidents with accepted injury claims from 2000 to 2005. Analysis of these claims showed that fallers sustained the highest rate of serious injury (6.8%). The data also revealed a generally declining annual number of injuries, from 2704 accepted claims in 2000 to 1698 claims in 2005; however, the percentage of serious injuries reported over this period increased, particularly in the falling and transport categories.

The project team developed a survey format to obtain responses from forest industry workers about many specific issues that commonly affect worker safety including: cutblock design and layout; road design, construction and maintenance; and policy and legislation. The email distribution to forest planners through the Association of BC Forest Professionals yielded 509 respondents, a sample size estimated by BC Stats as accurate to within ± 4.4%. Forest operations workers completed 261 surveys, a sample size estimated by BC Stats as accurate to within ± 6.1%. In total, 770 forest industry workers ("planners" and "loggers") responded to the surveys.

Although the forest planners and loggers felt that forest policy and legislation played a somewhat negative role in worker safety, both groups agreed that the primary causes of accidents and injuries were more often related to production pressures, fatigue, lack of training, and lack of experience (see Figure 1). In addition, when asked about the level of communication between forest planners and operations workers, survey participants' responses revealed that little direct communication occurred. Almost all respondents felt that improved communications, and greater knowledge of the others' work, would greatly improve worker safety.

In the policy realm, respondents' most frequently articulated concerns involved a perceived lack of flexibility for workers to adjust block boundaries or leave unsafe areas unharvested, and the inability to achieve safety-related appraisal cost allowances. When MFR legislation and policy specialists reviewed these concerns, the analysis indicated that *FRPA* did not appear to create any direct barriers to safety; issues were more related to inconsistent implementation of the policy by both industry and government staff rather than the policy itself.

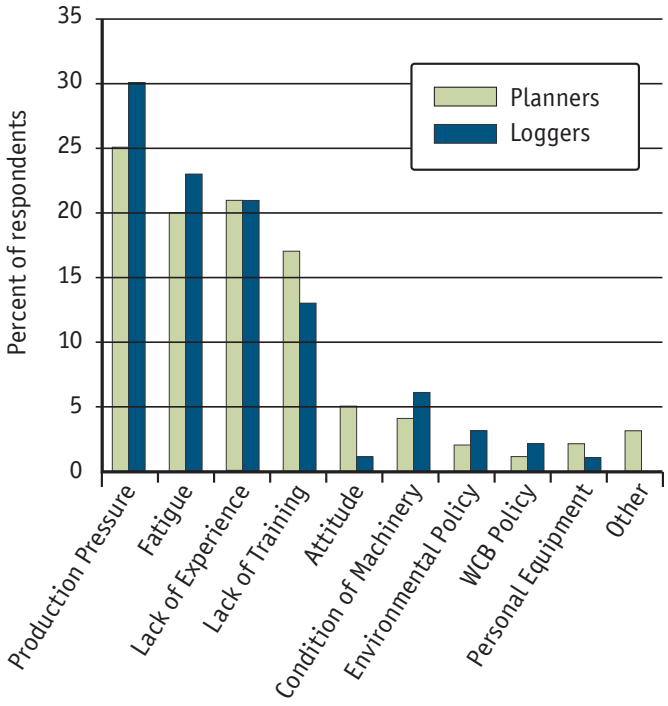

Figure 1. Survey respondents' ranking of the factors perceived to negatively affect worker safety

This apparent difference in observations between the survey respondents and the MFR policy specialists underscores the timing of survey administration during the transitional environment that surrounded implementation of *FRPA*. It is likely that some survey participants based question responses on their experiences with the previous Forest Practices Code (FPC) rather than on management under *FRPA*. The difference in observations does, however, highlight a need for enhanced communication of current policy to forest industry planners and workers, and government staff.

To meet the third project objective, survey participants were asked to identify specific practices that were either in use or that should be used to improve worker safety. Survey participants contributed 80 specific suggestions. Following further refinement through discussion with specialists, these responses could form the basis of a "best practices" handbook.

Recommendations

Several other important safety initiatives have either been completed or started, including several Coroners' Inquests, the Auditor General's Report on forest worker safety, and the MFR commitment to develop a comprehensive Action Plan for Forest Worker Safety. In light of these safety-related initiatives, the findings of this evaluation project represented just one component of a large and complex process.

The following recommended activities draw on both the forest industry workers' responses to the safety surveys and the policy analysis undertaken for this evaluation project:

- A training and communication program for planners, forest workers, and government staff to improve their understanding of legislative and regulatory requirements, and the human, engineering, and equipment limitations present during harvesting operations.
- Annual forums, such as peer-to-peer workshops, to involve government, professional bodies, and industry associations in the sharing and discussion of safety information.
- A review of the methods used to communicate cutting permit and appraisal policy and procedures to both licensees and government staff.
- Regular pre-harvest safety meetings between planners, supervisors, and loggers to provide opportunities for continuous improvement of practices.
- Co-operative development of "road use agreements" for licensees operating on shared roads or road networks to enhance safety by ensuring adequate road maintenance.

The Joint Practices Board should consider the following recommendations, which aim to aid the Association of BC Forest Professionals and the Association of Professional Engineers and Geoscientists of British Columbia in developing guidelines for forest roads:

- Describe professional responsibilities and accountabilities for the design, construction, safety standards, and maintenance of forest roads;
- Include a section on relevant policy that incorporates limitations and opportunities for flexibility; and
- Include the "best safety practice" recommendations identified by planners and loggers in the safety surveys.

Finally, to determine whether the province's safety record is improving, it is imperative that the forest sector, including industry, government agencies, WorkSafeBC, and the BC Forest Safety Council, work collaboratively in developing an information system that will clearly establish baseline safety data. This system will ensure that the appropriate information is gathered, evaluated, and freely shared in a timely manner to continually improve safety performance for everyone using British Columbia's forest resources.

More Information

For additional information on FREP, please refer to our website at: *http://www.for.gov.bc.ca/hfp/frep/index.htm*

FREP Forest & Range Evaluation Program

The FREP Report Summary is a regular publication of the Forest and Range Evaluation Program designed to inform stakeholders on program development and implementation, and report on the results of evaluation projects.