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## Guidelines Part 26 - General requirements

G26.2-1 Inspections and investigations with respect to forestry operations

Issued March 30, 2004; Revised February 3, 2005

Section 26.2 of the *OHS Regulation* states:

The management of forestry operations must plan and conduct such operations in a manner consistent with this Regulation and with recognized safe work practices.

In August, 2003, the Minister of Skills Development & Labour established the Forest Safety Task Force, comprised of senior representatives of the forest industry, to examine ways of reducing fatalities and serious injuries in BC's forestry sector. The Final Report of the Task Force notes that:

WCB enforcement activities have tended to address the obligations and defaults of individual independent contractors and sub-contractors and have tended not to address the role of land owners and large tenure holders and prime contractors in ensuring the occupational health and safety of workers in forestry operations.

One of the recommendations of the Task Force is to:

Adapt the WCB compliance system to the new and evolving realities of working in the woods, emphasising prevention activities and focusing compliance efforts on the full forest operation from individual worker to tenure holder.

The WCB is committed to undertaking compliance efforts to support the objectives put forward by industry through the Task Force.

This guideline provides guidance to officers as well as stakeholders in the forest industry regarding accountability and responsibility for aspects of health and safety compliance in forestry operations. It discusses how the duties of owners, employers, workers, and prime contractors might apply to those involved in the forest industry, including the Ministry of Forests, licencees, contractors, subcontractors, and workers.

## **Background**

Most forestry in British Columbia takes place on publicly owned Crown lands managed by the province through the Ministry of Forests (MOF). The management of the forests and lands in which forestry operations take place is governed by a variety of legislation, including the *Forest Act* and the *Forest Practices Code of British Columbia Act* and regulations associated with these Acts.

Under this legislation, the MOF grants rights to harvest and market timber to licencees through a variety of types of licence, or tenure. These licences also place certain obligations on the licencees. In general the terms of the licence include detailed conditions relating to harvesting practices, forest management, road building, reforestation, firefighting, and the like. Certain terms are dictated by forestry legislation; certain terms are functions of MOF policy.

Historically, timber harvesting and related operations, particularly on the coast, were typically carried out directly by the licencee. In recent years, however, forest operations have evolved into a complex multi-layered mix of contractors, subcontractors, and independent operators. In the interior, the evolution has been less dramatic, as in that region operations have historically involved a wide variety of contractors, often provided for in the tenure provided to licencees.

There are many types of tenure created under the *Forest Act*. Common forms of licence include timber licences, tree farm licences, woodlot licences, timber sale licences, and forest licences. Many such licences, in particular forest licences, timber licences and tree farm licences, impose significant obligations on the licensee with respect to operational planning and forest management.

The MOF determines an Annual Allowable Cut (AAC) for a particular broad region of the province, called a Timber Supply Area, which area may include any number of licences, and provides specific authority to licencees to harvest certain areas included in their respective licence area through specific cutting permits.

Licencees tend to contract operations related to harvesting and forest management to subsidiary organizations or to third-party contractors. In particular, licencees will often contract with subsidiaries or third party contractors to oversee harvesting operations in specific areas (referred to as "blocks") within the cutting permit area. Such contractors (often referred to as "stump to dump " contractors) are often responsible for a wide range of operations with respect to a given cutting permit.

Those organizations, in turn, tend to contract out portions of the harvesting operations (such as falling, yarding, or timber transportation) within specific blocks to subcontractors (often referred to as "phase" contractors). Those subcontractors, in turn, may engage individuals such as fallers or equipment operators to perform specific tasks. These individuals might be employees under a contract of service or independent contractors, who also may engage other workers as employees or under contract.

All of these different organizations and individuals have responsibilities for health and safety in forestry operations.

### **Duty of Contracting Employers to Workers of Subcontractors**

Section 115(1)(a) of the *Workers' Compensation Act* states:

Every employer must

(a) ensure the health and safety of

(i) all workers working for that employer, and

(ii) any other workers present at a workplace at which that employer's work is being carried out . . .

It is important to note that section [115](#) requires that every employer must ensure not only the health and safety of its workers, but also the health and safety of "any other workers present at a workplace at which that employer's work is being carried out."

A given work activity is not necessarily merely the work of the direct employer of the workers carrying out the work. The work may also be considered to be the work of an employer that has engaged a contractor to carry out the work, as that employer will be deriving an economic benefit from having the work carried out.

With respect to forestry operations, the entire range of activities relating to timber harvesting, transportation, and forest management should be viewed as the licensee's work, as well as the work of the contractors and subcontractors performing the work. In turn, the entire range of harvesting activities which a stump to dump contractor has been contracted to administer should be considered that contractor's work. In this way, the work of a single hand faller, for example, may be considered the work of many entities up the contracting chain for the purposes of establishing the health and safety duties of that entity under s. [115\(1\)\(a\)\(ii\)](#).

Every contractor and subcontractor will have health and safety duties with respect to the worker and workplace where the work is carried out. The extent of that duty, and the manner in which it is discharged, will depend on the circumstances. Factors to be considered in assessing whether that duty has been discharged include:

- The degree of control exercised by the contracting employer over the contractor in other areas of its business. The degree of control should be evaluated by reviewing both the terms of the contract between the parties as well as the reality of the relationship;
- The extent to which the contracting employer knew or should have known of a hazard or situation of non-compliance created by the activities of its contractor. For example, where the contracting employer appoints an individual such as a contract supervisor to monitor compliance with the terms of contract, it may be reasonable to conclude that the contracting employer knew or should have known of a lack of compliance with health and safety requirements;
- Whether it is reasonable to expect the contracting employer to have undertaken safety precautions.

The extent to which an employer took into consideration occupational health and safety matters in structuring and administering its relationship with any contractor it engaged should also be examined.

In engaging a contractor, the contracting employer must take reasonable steps to ensure that the contractor is capable of discharging its health and safety obligations towards its workers and subcontractors, and take reasonable steps to monitor the contractor's safety performance and address any issues that arise. What monitoring activities are reasonable in the circumstances, ranging from receiving safety reports or reviewing administrative records through to direct inspections, will correlate generally to the degree of control the contracting employer exercises over and the monitoring of other aspects of the contractor's operations.

### **Duties of Entities Involved in Forestry Operations**

The following is intended to outline the possible duties of various entities involved in forestry operations. It is intended as an outline only: each circumstance will have to be evaluated on its own merits.

#### **1. Ministry of Forests (MOF)**

The MOF is an administrative department of the Crown and does not have a separate legal identity from the Crown. As the workplace for almost all forestry operations will be located on Crown lands, the MOF should be considered an owner of workplaces in which forestry operations are taking place.

The obligations of an owner are provided in section [119](#) of the *Act*, which states:

Every owner of a workplace must

- (a) provide and maintain the owner's land and premises that are being used as a workplace in a manner that ensures the health and safety of persons at or near the workplace,

(b) give to the employer or prime contractor at the workplace the information known to the owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the workplace, and

(c) comply with this Part, the regulations and any applicable orders.

MOF compliance with obligations in section [119\(a\)](#) to "provide and maintain ... lands and premises that are being used as a workplace in a manner that ensures health and safety" will to a great extent be shaped by the legislation governing the disposition of forest licences and the terms of the licence granted by MOF to the licensee. It should be noted that the MOF normally has a great deal of discretion to direct certain activities of forest operations under the terms of its licence and that MOF forestry policy may guide activities at the workplace.

For example, the MOF may itself construct, modify, or maintain forest service roads or it may permit the licensee to design and build forest roads. Failure of the MOF to adequately construct, modify, or maintain forest service roads should be considered as a violation of section [119\(a\)](#). Failure of the MOF to ensure licensees construct forest roads to safe road design criteria or the MOF's use of criteria that are in and of themselves unsafe may also be considered a violation of section [119\(a\)](#). While licensees would typically be responsible for road signage and the like, MOF road use policy, enacted through the directives of MOF district managers, could have an impact on safety of workers at the workplace.

With respect to the obligation in section [119\(b\)](#) to give "information... necessary to identify, eliminate or control hazards," the MOF should typically be expected to communicate to licensees, prime contractors, or any relevant employer in a licence area, information about any safety hazard it becomes aware of, or should have become aware of, particularly with respect to hazards encountered during the course of inspecting forestry operations to ensure that the terms of the forest licence and forestry legislation are being adhered to. In particular, the MOF should be expected to note and raise with licensees safety hazards such as degraded roads, washouts, obscured or inadequate signage, or other unsafe forestry practices that the MOF becomes aware of.

## **2. Licensee**

The licensee will typically be subject to occupational health and safety obligations in a variety of roles.

Section [123\(2\)](#) of the *Act* provides that "if a person has 2 or more functions ... in respect of one workplace, the person must meet the obligations of each function" - that is, if a company is both an employer and an owner, it must meet the obligations of each. Prevention Policy Item [D3-123/124-1](#) also provides that persons other than an employer "may be cited for violations of their statutory duties, even if the employer or another person has also failed in his or her responsibilities." For example, the fact that the prime contractor failed in its duty does not exonerate the owner from its obligations.

(a) Licencee as owner

The definition of *owner* in section [106](#) of the *Act* expands the commonly understood meaning to include a "licensee or occupier of any lands or premises used or to be used as a workplace" or "a person who acts for or on behalf of an owner as an agent or delegate." Accordingly, the licensee should in most circumstances be considered, in addition to the MOF, to be an owner of workplaces where forestry operations are undertaken.

It is possible, under the *Act*, to have more than one "owner" of a workplace. Policy Item [D3-123/124-1](#) provides that:

Section [124](#) of the *Act* permits persons who have the same duty under the *Act* or regulations to agree amongst themselves as to who should perform it. However, the Board is not bound by any agreements of this nature nor by whether the terms of the agreement are complied with or not complied with. The Board's only concern is that the duty in question be performed.

The Policy also provides:

The conditions set out in section [124](#) will be met if the health and safety objective of the duty in question is fully met by one person's compliance in the circumstances of the workplace. If performance by one person leaves health and safety risks that would be eliminated by others performing their duty, the others must also perform their duty.

In accordance with Policy Item [D3-119-1](#), Board officers should consider issuing orders to owners where the owner in question has knowledge and control over the workplace hazards in question. Among the factors to be considered in writing orders on owners are:

- *Knowledge*: whether the owner knew or should have known that the health and safety of the persons at or near the workplace would likely be harmed by the condition or use of the workplace and the extent of the harm, if it occurred, would be more than minor or trivial.

For example, where a hazard has been created due to inadequate road maintenance, most often the licensee should have known about the hazard, as licensees are, under most (but not all) tenures, obligated to maintain forest roads. Whether the MOF had also become aware of the hazard in the course of monitoring the licensee's compliance with forestry legislation should also be explored.

- *Control*: whether the owner had some control or influence over the safety of the workplace in that the owner could practicably have taken measures necessary to eliminate or reduce the risk or extent of the potential harm.

Typically, once the licence is granted, licencees will have more control over the workplace than MOF, and would be in a position to fulfill the duties as owner, though as noted above, the MOF will retain certain duties as owner.

- *Communication*: whether the owner possessed material information and failed to communicate all the material information in the owner's possession to the persons at or near the workplace, thus preventing them from taking measures to protect themselves.

For example, if there are specific hazards with respect to certain forest roads, such as areas with steep grades, dangerous curves, washouts, and other hazards the licencee knows or should know of, the licencee must take steps to make users aware of these hazards so the users may take measures to protect themselves.

(b) Licencee as prime contractor

Section [118](#) of the *Act* creates a requirement in a multiple-employer workplace to have a prime contractor for coordinating health and safety matters. Section 118 states:

(1) In this section:

**"multiple-employer workplace"** means a workplace where workers of 2 or more employers are working at the same time;

**"prime contractor"** means, in relation to a multiple-employer workplace,

(a) the directing contractor, employer or other person who enters into a written agreement with the owner of that workplace to be the prime contractor for the purposes of this Part, or

(b) if there is no agreement referred to in paragraph (a), the owner of the workplace.

(2) The prime contractor of a multiple-employer workplace must

(a) ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and

(b) do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with this Part and the regulations in respect of the workplace.

(3) Each employer of workers at a multiple-employer workplace must give to the prime contractor the name of the person the employer has designated to supervise the employer's workers at that workplace.

Section 106 of the *Act* defines "workplace" broadly. It states:

**"workplace"** means any place where a worker is or is likely to be engaged in any work and includes any vessel, vehicle or mobile equipment used by a worker in work.

In typical commercial or industrial operations, what constitutes the workplace is often self-evident, as the location is well defined. With respect to forestry operations, which involve a variety of activities undertaken by a range of contractors over a broad geographic area, identifying the workplace is less certain. Work locations may be undefined until the work is actually performed, and may be located anywhere within the licence area.

A forestry workplace will almost always be a multiple-employer workplace. Policy Item [D-3-118-1](#) provides that a multiple-employer workplace may exist even if workers of different employers are present at the same time working on *different* projects. In addition, the Policy provides that the phrase "at the same time" will be given a "fair large and liberal construction" in order to "best attain the objectives of [s. 118](#)." According to the Policy, "at the same time" means that workers of 2 or more employers are merely present in the workplace over "an appropriate interval" rather than at any precise point in time, and that the duration of the interval of time to be considered will depend upon the circumstances of the individual workplace. In addition, the Policy provides that it does not matter whether the workers of the different employers actually come into contact, as long as one employer's workers and their activities could well affect the health and safety of another employer's workers who come into the workplace at some other time.

Assessing what the workplace is for the purposes of establishing prime contractor obligations in the forestry industry will, in addition to the factors outlined in Policy [D-3-118-1](#), depend on:

- the degree to which the activities of one employer will impact the health and safety of workers of another employer in a given area;
- the degree to which a given area constitutes a single contiguous administrative unit;
- exclusivity of control over the given area;

The multiple employer workplace may, depending on the circumstances, be a single block, a cutting permit area, or, in certain situations where the above factors are present, an entire licence area.

Section [118\(1\)](#) provides that the prime contractor will be the owner, unless there is a specific agreement designating another person as prime contractor. As the owner with the greatest control over the workplace, it is appropriate that the licensee act as "default" prime contractor. Even though there may be a "stump to dump" contractor who may be a directing contractor over a broad portion of forestry operations, that contractor will not be the prime contractor unless there is a specific designation in a written agreement that the contractor will act as prime contractor for the purposes of coordinating occupational health and safety matters.

Also, in accordance with Policy Item [D3-118-1](#), there can be only one "prime contractor" at a workplace at any point in time. If an owner enters into more than one agreement purporting to create a "prime contractor" for the same period of time, the owner will be considered to be the prime contractor.

Under section [118\(2\)](#) of the *Act*, the prime contractor is responsible for coordinating activities relating to health and safety at the workplace. Coordination will extend to logistical matters relating to the work carried out by the employers at the workplace. The prime contractor of a forestry workplace must, as a function of this coordination role, perform a risk assessment to determine appropriate measures to eliminate or reduce hazards faced by workers in the area in question. The prime contractor is also responsible for establishing a system or process to ensure health and safety compliance. This may involve establishing a safety program as described in section [3.3](#) of the *OHS Regulation* with respect to the entire workplace, as well as making regular inspections of the workplace as contemplated by section [3.5](#) of the *OHS Regulation*. It may also involve the creation of a joint health and safety committee for the entire workplace.

In addition to the duties on prime contractors contained in the *Act*, the *OHS Regulation* provides for a specific obligation on a prime contractor. Section [26.4](#) requires the prime contractor to submit a notice of project of a forestry operation.

(c) Licencee as employer

The licensee may also have responsibility over the forestry workplace as an employer. The obligations of an employer are set out in section [115](#) of the *Act*, as discussed above.

It should also be noted that obligations contained in the *OHS Regulation* that are imposed on an employer may apply to the licensee in this context, as appropriate. In addition, many duties in [Part 26](#) of the *OHS Regulation*, while imposing specific obligations, do not impose duties on a specific party at the workplace, and may apply to the licensee as appropriate in the context.

In particular, section [26.2](#) of the *OHS Regulation* provides that the "management of forestry operations must plan and conduct such operations in a manner consistent with this Regulation and with recognized safe work practices." As described above, major licences impose obligations with respect to operational planning. The obligation extends to all areas proposed for harvest under the licence and with respect to all existing and proposed roads in the licence area.

In many circumstances, the licensee may be considered to be the "management" of forestry operations. "Plan and conduct" should include such obligations as:

- evaluating the risks the operations of contractors at one workplace within the licence area will impose risks on the workers at another, and, where necessary, coordinating those activities in order to ensure that health and safety of workers is not put at risk. For example, the prime contractor must evaluate the use of the

forest road system shared by contractors at the forestry workplace. The degree of coordination required, ranging from alerting contractors of the presence of other users to fuller traffic control measures, will depend on the risk of that shared use creating hazards for workers;

- monitoring the operations of contractors that they are meeting their health and safety obligations and are, in turn, monitoring the health and safety performance of their subcontractors. As noted above, where the contracting employer appoints a contract supervisor, that individual should monitor compliance with health and safety requirements as a function of his or her duties to monitor compliance with the terms of the contract.

### **3. "Stump to Dump" Contractors, "Phase" Contractors, and Subcontractors**

Each of the above entities will have the duties of an employer in section [115](#) of the *Act* towards its own workers and workers of other employers at the workplace. In particular, the above will have duties under section [115](#) of the *Act* to ensure not only the health and safety of its workers, but also the health and safety of "any other workers present at a workplace at which that employer's work is being carried out."

Each employer will also be responsible for having its own safety program, performing workplace inspections, and maintaining a joint occupational health and safety committee.

### **4. Workers**

Workers also have a responsibility for health and safety under section [116](#) of the *Act*, including taking "reasonable care to protect the worker's health and safety and the health and safety of other persons who may be affected by the worker's acts or omissions at work" and "carry out his or her work in accordance with established safe work procedures" as required by [Part 3](#) of the *Act* and the *OHS Regulation*.

In addition, workers must report "any contravention of this Part, the regulations or an applicable order of which the worker is aware" and "the existence of any other hazard, that the worker considers is likely to endanger the worker or any other person." Workers must also cooperate with any "person carrying out a duty under this Part or the regulations." The definition of "worker" includes independent operators who have elected to obtain personal option protection.


### **5. Directors**

It should be noted that in accordance with section [213](#) of the *Act*, a lack of compliance by a corporation could result in a prosecution of the corporation's directors, officers, or agents who permit or acquiesce in the contravention of [Part 3](#) of the *Act*, the *OHS Regulation*, or a Board order. In examining issues of non-compliance, Board officers should consider the role played by the individuals controlling a corporation in creating or turning a blind eye to the conditions of non-compliance.

## **Summary of Approach to Inspections and Investigations in Forestry Operations**

Generally, in undertaking investigations and inspections, Board officers are expected to look beyond the immediate issues of non-compliance and determine whether the particular incident of non-compliance represents an isolated incident attributable to the particular employer at a specific worksite or whether the incident is symptomatic of a failure of a duty of an entity higher up the contracting chain than the immediate employer. This may include issues such as a prime contractor's failure to coordinate the workplace, inadequacies of a contractor's safety program, or a failure of a contractor to undertake workplace inspections.

To effectively assess the violation, Board officers should consider the terms of the licence between the MOF and the licensee, review the various directives of the MOF to the licensee, and assess the directions of licensees to contractors and subcontractors. In addition, Board officers should consider how activities of contractors and subcontractors are dealt with in a given entity's safety program, whether the entity undertakes workplace inspections of worksites operated by contractors or subcontractors, and whether a contractor's approach to health and safety was considered in selecting the contractor.

G26.2-2 Planning log hauling operations for varying road grades 

Issued: September 28, 2005

### **Regulatory excerpt**

Section 26.2 of the *OHS Regulation* states:

The management of forestry operations must plan and conduct such operations in a manner consistent with this Regulation and with recognized safe work practices.

### **Purpose of guideline**

The purpose of this guideline is to provide direction about appropriate risk assessments that should be conducted in planning log hauling operations on varying road grades to ensure worker safety.

### **Risk assessment**

If log haul operations are to be conducted on road grades that exceed those listed in the Ministry of Forests' *Forest Road Engineering Guidebook*, a risk assessment should be conducted before any hauling is conducted. The risk assessment factors will depend on the grade of the road, namely:

1. *Grades 0 to 18% (18% for short pitches is the maximum listed in the Forest Road Engineering Guidebook)*

The following conditions should be in place to ensure log haul operations on these grades do not present a safety concern:

- The vehicle can be brought to a safe stop on the road surface and grade given the weather conditions at that time.

- The vehicles are properly maintained.
  - Speed is not excessive (excessive speed for this guideline is considered as speed above the design speed, above which the operator is not in adequate control of the vehicle, or speed above which the unit could not be brought to a safe stop given a single failure in the driveline).
  - Vehicle loads are within the limits of the equipment.
2. *Grades in excess of 18% (grades exceeding road grades listed in the Ministry of Forests' Forest Road Engineering Guidebook):*

There are many factors that contribute to safe operations on these grades, including: weather conditions; road surface friction; grade and horizontal alignment; side slope; velocity of the vehicle; load carried by the vehicles; size, style and condition of brakes; obstacles ahead; and location and size of drop-offs.

The employer must perform a risk assessment to ensure that the equipment being used is capable of performing in a safe manner given weather conditions at the time of log hauling. This assessment should include the following:

- specifications regarding the road surface condition;
- vehicle speed;
- length of pitch;
- road relief;
- curve radius; and
- comments on specific terrain hazards to negotiate.


The risk assessment should not rely solely on the fact that trucks or other equipment may have negotiated similar roads without incident during past operations.

The risk assessment should also address the situation where if an upset condition (such as adverse weather conditions or a failure in the driveline) were to occur, how that upset condition would be controlled or mitigated. The risk assessment needs to confirm that the vehicle or other equipment can be brought to a safe stop under the anticipated hauling or upset conditions. If hauling conditions fall outside the anticipated parameters of the risk assessment, a reassessment should be conducted before hauling continues.

A clear work procedure must be developed based upon the risk assessment described above and include specific instructions for all factors included in the risk assessment. In addition, the risk assessment should include instructions for correct brake adjustment, and if necessary, brake temperature checks. The risk assessment and subsequent work procedure should be discussed and agreed upon with the loading and hauling crews.

Once completed, the risk assessment must confirm that the vehicles or other equipment travelling on these slopes are capable of doing so safely before hauling operations begin.

## Guidelines Part 26 - Falling and bucking

G26.22 Faller training - application 

Issued September 28, 2005

### Regulatory excerpt

Sections 26.21 and 26.22 of the *OHS Regulation* state:

#### 26.21 Faller qualifications

- (1) An employer must not allow a worker to fall or buck trees until the worker has demonstrated to the employer that the worker is qualified.
- (2) To determine whether a worker is qualified to fall or buck trees, the employer must apply the standards of a training program that is acceptable to the Board.

#### 26.22 Faller training

- (1) A worker in a forestry operation must, before commencing work as a faller, receive training for falling that is acceptable to the Board.

...

### Purpose of guideline

Hand falling remains one of the most dangerous professions in British Columbia. It is crucial that fallers are trained in safe work practices so that they are able to recognize and eliminate or minimize hazards.

Since the enactment of the *OHS Regulation* in 1998, there has been no single reliable faller training course acceptable to the Board available to employers and workers. As a result, until the end of 2003 the requirement for training acceptable to the Board in section [26.22\(1\)](#) was subject to a series of vice-president Directives which suspended enforcement of this provision. These Directives are no longer in place, and therefore workers must now receive, or be deemed to have received in accordance with s. [26.22\(2\)](#), training acceptable to the Board in order to work as fallers.

This guideline sets out what training is acceptable to the Board for the purposes of s. [26.22\(1\)](#) of the *OHS Regulation*, and who is required to receive faller training.

### Who must receive training?

The faller training requirement in s. [26.22](#) applies to workers in a "forestry operation." Section [26.1](#) of the *OHS Regulation* states that a forestry operation "means a workplace where work is done in relation to silviculture or harvesting trees, including constructing the means of access and transporting the harvested trees to a facility where they are processed or from which they are exported." Workers who fall trees in such workplaces will have to be trained and certified in accordance with s. [26.22](#).

The Board considers work relating to "harvesting trees" to be any operations that are undertaken pursuant to a permit, license or other tenure or permission from the Ministry of Forests or other government agency. In particular, this includes any falling activity on

land designated as provincial forest, which includes Crown forest land, range land, or private land that is subject to a tree farm license, community forest agreement or a woodlot license. "Forestry operations" may also include any falling that is done on private land that is not subject to a timber tenure, provided that the harvesting is undertaken as part of an enterprise that has as a purpose falling trees for the purposes of selling or processing them to be made into merchantable wood products.

For greater certainty, the Board considers the training requirement to apply to any worker falling trees in the following operations:

- harvesting timber for processing or sale either pursuant to a license or permit from the Provincial Government, or on a private woodlot;
- falling trees in connection with forest fire fighting or fire prevention activities; and
- falling trees in connection with oil and gas exploration and site preparation, including seismic line falling.

### **Who is not required to receive training?**

Workers who exclusively fall trees that measure less than 15cm (6") diameter at 30cm (12") height need not be trained and certified in accordance with s. [26.22](#).

The Board does not consider s. [26.22](#) to apply to arborists, unless they are falling trees in connection with a forestry operation. Training requirements for arborists that fall trees near electrical equipment are covered in Part 19 of the *OHS Regulation*.

While workers who fall trees other than in connection with a "forestry operation" need not receive faller training under s. [26.22](#), such workers must still receive adequate training in accordance with s. [115](#) of the *Workers Compensation Act*.

### **Faller training**

To address the need for acceptable training, the Board, in conjunction with forest industry employer associations, representatives of organized labour and experienced hand fallers, has developed a faller training standard that meets the requirements of section [26.22](#).

The delivery of training meeting the B.C. Faller Training Standard is currently being administered by the [B.C. Forest Safety Council](#). The B.C. Forest Safety Council can be contacted at 1-877-324-1212.

The B.C. Faller Training Standard consists of two primary components. The first component addresses new faller training, and covers the selection and use of appropriate personal protective equipment, the maintenance and operation of falling equipment and tools, hazard recognition and control, and safe falling, bucking and limbing procedures. The second component involves a written exam and a practical field evaluation of the faller's falling abilities, which, if successfully completed, will result in the issuance of a certificate to the faller.

### **Experienced fallers**

Fallers with more than 2 years experience may be deemed to have received training acceptable to the Board in accordance with s. [26.22\(2\)](#) of the *OHS Regulation* by successfully challenging the B.C. Faller Training Standard. Experienced fallers may contact the B.C. Forest Safety Council for more information on challenging the Standard.

### **Other courses**

The Board recognizes that other training courses may be developed that may meet the requirements for acceptance under section [26.22\(1\)](#). The Board will review any proposed courses for acceptance to ensure consistency with the B.C. Faller Training Standard. Any new courses the Board identifies as acceptable under section [26.22\(1\)](#) will be added to this guideline for the information of workplace parties and prevention officers.

Persons wishing to have the Board consider an alternative course for acceptance under section [26.22\(1\)](#) may submit that course to the Board for review and evaluation. Please contact Board Certification Services at (604) 276-3090 for further information.


### **Employer's obligation to ensure training**

While the obligations in s. [26.22](#) regarding receiving training are imposed on workers in a forestry operation, employers should note their obligations under s. [26.21](#) of the *OHS Regulation*.

Employers are required, as part of the obligation in s. [26.21](#) to verify that fallers have received Board approved training. This can be done by ensuring that the faller possesses a valid faller training certificate or by enquiring with the B.C. Forest Safety Council.

In addition to verifying that the faller has received Board approved training, employers are required to ensure that fallers are able to fall safely the size and type of timber that the faller will encounter in the conditions (such as terrain) that will be present at the workplace. Faller experience should be documented in the log book issued to each faller as part of the training process. Reviewing this information will assist the employer to make an appropriate decision whether the faller is qualified for the conditions he or she will encounter.

## **Guidelines Part 26 - Hauling**

G26.65(3) Logging trucks pulling multiple trailers 

Issued May 17, 2006

### **Regulatory excerpt**

Sections 26.65(1) and (3) of the *OHS Regulation* states:

(1) For the protection of the driver, each logging truck must have, at the back of the cab, a substantial barrier that

(a) is at least 15 cm (6 in) higher than the cab, and

(b) is at least as wide as the cab.

...

(3) For the purposes of subsection (1), the barrier must be capable of withstanding a horizontal forward static load equal to 40% of the weight of the cargo being transported that may shift and contact the barrier, with this load uniformly distributed over the entire barrier.

### **Purpose of guideline**

This guideline provides direction on how to calculate the weight that may shift and contact the barrier to determine the strength of the barrier required under section 26.65(3).

### **Calculation of the weight of cargo being transported that may shift and contact the barrier**

Under section 26.65(3) of the *OHS Regulation*, a barrier must support a static load that is at least 40% of the weight of the cargo that could strike the barrier. In some cases the cargo being transported is on a second, and possibly a third trailer. Generally, in determining whether the weight of the trailers may shift and contact the barrier

- 100% of the load directly behind the bulkhead is considered to be able to shift and contact the barrier
- 50% of the second trailer's load is considered to be able to shift and contact the barrier
- 25% of the third trailer's load is considered to be able to shift and contact the barrier

### **Calculation of the strength of barrier required under s. 26.65(3)**

In order to calculate the strength of the barrier, barrier protection must withstand at least 40% of the load directly behind the driver, plus one half of 40% of the load in the next trailer, plus one quarter of 40% of the load in the next trailer.

**Note:** These calculations assume that the

- Load is uniformly distributed and there is not a point load
- Barriers are 1.8 meters or more in height
- Overall length of truck tractors and semi-trailers does not exceed the requirements of the *BC Commercial Transport Regulations*, B.C. Reg. 30/78 as amended

### **Example**

Consider a total load of 100 tons with 50 tons directly behind the barrier and 25 tons on each of two attached trailers. The barrier needs to have a horizontal static load rating of:  $0.4 \times 50 \text{ tons} + 0.4 \times 0.5 \times 25 \text{ tons} + 0.4 \times 0.25 \times 25 \text{ tons} = 27.5 \text{ tons}$

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**Regulatory excerpt**

Section 26.65(4) of the *OHS Regulation* states:

The barrier of the logging truck must be

- (a) designed, constructed and maintained so that it has no aperture large enough to permit any item of cargo to pass through it, and
- (b) installed in a manner acceptable to the Board to ensure that the rated capacity of the barrier is not diminished.

Section 4.3(2) of the *OHS Regulation* states:

Unless otherwise specified by this Regulation, the installation, inspection, testing, repair and maintenance of a tool, machine or piece of equipment must be carried out

- (a) in accordance with the manufacturer's instructions and any standard the tool, machine or piece of equipment is required to meet, or
- (b) as specified by a professional engineer.

**Purpose of guideline**

The purpose of this guideline is to provide direction about acceptable installation of a barrier on a logging truck under section 26.65(4)(b).

**Installation in a manner acceptable to WorkSafeBC**

WorkSafeBC considers any one of the following methods to be acceptable in meeting the requirements for installing a barrier of the logging truck under s. 26.65(4)(b):

1. One of
  - The barrier of the logging truck is installed in accordance with the manufacturer's instructions and any standard the barrier is required to meet (see s. 4.3(2)(a) of the *OHS Regulation*)
  - The barrier of the logging truck is installed as specified by a professional engineer (see s. 4.3(2)(b) of the *OHS Regulation*).

Note: The fasteners for attaching the barrier should be not less than grade 5 and not more than grade 8 quality.

2. The barrier of the logging truck carrying a load of logs weighing up to 84,000 lbs (38,100 kg) is installed so that each barrier will, at a minimum, be attached to the truck by the equivalent of two 7/8 or 1 inch UNF grade 8 bolts (rods) with substantial tie straps. This is preferable to the use of U-bolts. The fastener's torque

- must meet the manufacturer's specifications. Note: A spacer is often installed in the open section of the tractor C frame to help support the required torque.
3. The barrier of the logging truck carrying a load of logs weighing up to 84,000 lbs (38,100 kg) is installed so that each barrier will, at a minimum, be attached to the truck by the equivalent of one of the following:
    - a) six 3/4" grade 8 bolts on each side, three of which must be separated by approximately 5.5 inches starting from about 2 inches from the end at the front and rear of the 34-38" angle iron sill
    - b) two 1" grade 8 U-bolts with bottom plates on each side, one at the front and one at the rear of the 34-38" sill or sub frame
    - c) four 3/4" grade 8 bolts and one 1" grade 8 U-bolt on each side (U-bolt at the back towards the trailer), or
    - d) three 7/8" grade 8 U-bolts on each side (two U-bolts in the back and one at the front of the barrier)

Also, when attaching the barriers using U-bolts as described above

- The fastener's torque must meet the manufacturer's specifications, Note: A spacer is often installed in the open section of the tractor C frame to help support the required torque,
- The bend radius between the inside of the legs and the inside of the top of the bolt must be at least 3/4 inch, and
- The U-bolt must closely fit the clamped components to avoid corner bending.

Note: Under section 4.8(2)(b) of the *OHS Regulation*, if the barrier attachment system has been modified in a manner which will change its rated capacity or rated load, the rated capacity or rated load must be certified by a professional engineer. Unauthorized modification may lead to equipment failure and operator injury.