PART 1: DEFINITIONS

1.1 In this Occupational Health and Safety Regulation:

"hazard area" **means an area in a workplace where a hazard exists, or is created, due to a condition in the area or the activities conducted in it;**

Explanatory note

The term "hazard area" is used in various sections in the *Occupational Health and Safety Regulation ("OHSR")* but is not defined anywhere. The new definition of this term under Part 1 of the *OHSR* will add clarity wherever it is used.

In response to feedback received, the definition of "hazard area" has been amended from the public hearing draft by adding "or is created" to indicate the hazard may exist or arise in future from the conditions or activities in the area.

PART 4: GENERAL CONDITIONS

ILLUMINATION

Illumination levels

4.65 (1) ~~Except as provided in subsections (2) and (3), and in section 4.69~~, **Except as otherwise provided in this section and section 4.69,** an employer must provide and maintain minimum illumination levels to ensure safe working conditions, safe passage and the identification of hazards or obstructions as follows:

(a) 22 lux (2 fc) in areas of low activity, such as parking lots, building exteriors**, outside areas** and basement areas housing machinery, but which are not regular task areas;

(b) 54 lux (5 fc) in areas of high activity, such as frequently used walkways and building access and egress points.

(1.1) Cap lamps or other local sources of illumination acceptable to the Board must be used if the light intensity in a work area is less than 22 lux (2 fc) and it is impracticable to provide illumination by any other means.

(2) For tasks which require the ability to distinguish detail an employer must provide and maintain illumination as required by Table 4-1.

(3) For work processes which require lower illumination levels than those specified in subsections (1) and (2), such as photographic darkrooms, fish hatching rooms and poultry catching operations, the employer may use other effective means to ensure the safety of workers.

Explanatory Note

Section 26.20, Night Operations, has been removed from Part 26 as this topic is covered by sections 4.64 to 4.69 of Part 4. However, those sections in Part 4 do not address illumination in outdoor areas such as forestry operations and make no provision for the use of cap lamps or other sources of acceptable illumination where it is impracticable to provide the lowest levels of illumination allowed by the Regulation.

Therefore provisions have been added to section 4.65 in Part 4 in order to address illumination in outdoor areas and to allow for the use of cap lamps or other acceptable sources of illumination. The new subsection 1.1 above contains the same illumination standard as section 26.20 which it will replace. The term “cap lamps”, which is commonly used in the mining industry, includes head lamps.

PART 26: ~~FORESTRY OPERATIONS~~ FORESTRY OPERATIONS AND SIMILAR ACTIVITIES

DEFINITIONS

Definitions **26.1** In this Part:

"active falling area" means the area within a 2 tree length radius of where a faller or mechanized falling equipment is located and equipped so as to be able to fall timber;

"backspar" means a tree rigged up at the back end of a work area to support a skyline;

"binder" means a wire~~ rope~~, **synthetic rope, chain or other device that is** secured by a cinch~~,~~ **and** placed around logs on a logging truck or trailer to prevent the ~~load~~ **logs** from spilling;

"bucker" means a worker who cuts up trees on the ground;

"bunk" means the bottom section of the cradle assembly on a logging truck or trailer onto which logs are placed;

"butt rigging" means a system of swivels, shackles, links and hooks which connect the haulback and mainlines and to which chokers are fastened;

~~*"cable clip"*~~ ~~means a u-bolt cable connector;~~

"cable logging" means a yarding system employing winches, blocks and cables;

"dangerous tree" ~~includes any tree that is hazardous to workers because of location or lean, physical damage, overhead hazards, deterioration of the limbs, stem or root system, or a combination of these;~~ **means a tree that is a hazard to a worker due to**

(a) its location or lean,
(b) its physical damage,
(c) overhead conditions,
(d) deterioration of its limbs, stem or root system, or
(e) any combination of the conditions in paragraphs (a) to (d);

"faller" means a worker who **manually** falls trees;

"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;

"haulback" means the cable used to outhaul the rigging or grapple when yarding;

"high lead" means a cable logging system in which running line lead blocks are placed on a lift tree **or on a mobile yarder** to provide lift to the logs during yarding;

"holding wood" **means the hinge of wood left uncut between the back of the undercut and the backcut;**

"intermediate spar" means a tree used to elevate a skyline between the yarder and the backspar in a multispan skyline system;

"landing"	~~means the area where the yarder or loader is placed, and logs are yarded or skidded for sorting and preparing for transport;~~ **means the area to which logs are** **(a) yarded or skidded for sorting, and** **(b) prepared for transportation;**
"lift tree"	means a tree rigged to support running lines;
"log transporter"	**means any of the following used to transport logs on roads:** **(a) a truck;** **(b) a trailer;** **(c) a truck and trailer assembly;**
"mainline"	means the cable used to yard logs;
"mobile yarder"	means a logging machine mounted on wheels, tracks or skids, incorporating a vertical or inclined spar, tower or boom used in a skyline, slackline, modified slackline, high lead, or grapple ~~overhead~~ cable logging system;
"molly hogan"	means a single strand of wire rope rolled into a circle with 6 complete wraps that may be used as a temporary method of connecting the eye splices of 2 lines of the same size or in pin shackles to replace the cotter pin;
"multiple-employer workplace"	**has the same meaning as in section 118 of the *Workers Compensation Act;***
"prime contractor"	**has the same meaning as in section 118 of the *Workers Compensation Act;***
"sapling"	**means an immature tree that ordinarily would not be harvested;**
"skidding"	means moving logs by the use of mobile equipment that travels while the logs are being dragged;
"skyline"	means a cable on a yarder that supplies lift for yarding lines, blocks, rigging, carriage and logs;
"slackline"	means a skyline that can be tensioned at the operator's discretion;
"spar"	means a tree or mast on which rigging is hung for a cable logging system;
"strawline"	means a small diameter cable used in rigging up or moving larger cables or blocks;
"turn"	means one or more logs that are skidded or yarded to the landing at one time;
"yarding"	means moving logs by the use of mobile or other equipment that does not travel while the logs are being moved.

Explanatory Note

"**FORESTRY OPERATIONS AND SIMILAR ACTIVITIES**"

The title of Part 26 has been changed from "Forestry Operations" to "Forestry Operations and Similar Activities", in order to clarify that this Part applies to more than just forestry operations. Stakeholders indicated they were unclear about the scope of Part 26.

There are some sections in Part 26 that apply only to forestry operations, while others apply to certain activities whether or not they are part of a forestry operation. For example, section 26.2, on Planning and Conducting, applies only to forestry operations, because the section says "All aspects of a forestry operation must be planned and conducted ….". However, section 26.21, on Faller Qualifications, applies to all falling and associated bucking activities, whether or not they are part of a forestry operation,

because the section does not say “in a forestry operation”.

To determine which activities are covered by each section, it is necessary to look at the wording of the section. If a section refers to “a forestry operation”, then the obligations set out in that section apply only to forestry operations. However, if a section does not refer to “a forestry operation”, the obligations in that section are not limited to forestry operations and apply to the activities described in that section.

Sections that are limited to forestry operations include sections 26.1.1, 26.1.2, 26.2, 26.3, 26.4, 26.5, 26.7, 26.7.2, 26.22. 26.22.1, and so on.

Sections that are not limited to forestry operations include sections 26.3.1, 26.7.1, 26.8, 26.10, 26.11, 26.13, 26.21, 26.23, 26.24, 26.25, and so on.

The new title for Part 26 does not introduce any new obligations into this Part, as various sections in Part 26 have always applied to the activities described whether or not they were part of a forestry operation. This expanded title merely provides more notice about the broad scope of Part 26.

Definitions

“*binder*” – the amendment allows for the use of materials other than wire.

“*cable clip”* – this definition is being deleted as the requirements for cable fastenings are found in Part 15 and the references to “cable clip” have been removed from Part 26.

“*dangerous tree”* – the definition has not been changed but merely reorganized for clarity.

“*faller*” – the amendment makes the definition consistent with the amendments to section 26.21, which distinguish between manual and mechanized falling.

“*high lead*” – the amendment expands the definition to recognize other methods used in the industry.

“*holding wood*” – this new term is being added and defined for clarity, as it is used elsewhere in Part 26.

“*landing*” – the amendment changes the definition as, in contemporary yarding and loading operations, the yarder and loader may not be located on the landing.

“*log transporter”* – this definition has been added to Part 26 as this term is used in various sections in Part 26 but is not defined.

“multiple-employer workplace” – this definition has been added since the public hearing, as this phrase is used in Part 26. It is merely a reference to the definition in the *Act,* and does not introduce anything new.

“*mobile yarder*” – the amendment removes the redundant word “overhead”.

“prime contractor” – this definition has been added since the public hearing, as this phrase is used in Part 26. It is merely a reference to the definition in the *Act,* and does not introduce anything new.

“*sapling*” – this term has been added and defined for clarity, as it is used in section 26.11.

GENERAL REQUIREMENTS

Prime contractor requirements for forestry operations

26.1.1 If the owner of a forestry operation enters into an agreement referred to in section 118 (1) of the Act designating a person to be the prime contractor for a workplace, the owner must ensure that

(a) the person designated

(i) is qualified to be the prime contractor in respect of that workplace, and

(ii) has the authority necessary to fulfill the responsibilities of prime contractor under the Act, including, without limitation, authority over any employer, worker or other person who may be carrying out the work of the owner at the workplace, and

(b) not more than one person holds the designation of prime contractor for that workplace at any given time.

Explanatory Note

Section 118 of the *Workers Compensation Act* says there must be a prime contractor in multiple-employer workplaces to coordinate health and safety and establish a system to ensure compliance with Part 3 of the *Act* and this Regulation. If the owner does not have a written contract with someone else to be the prime contractor, then section 118 says the owner is the prime contractor. Thus, there is always a prime contractor in a multiple-employer workplace. The prime contractor has very important responsibilities in multiple-employer workplaces.

A recent Coroner's inquest into the death of a faller heard evidence that the prime contractor in that case was not qualified to perform the duties set out in section 118. As a result, this section will require the owner of a forestry operation (who is usually the licensee) to ensure the prime contractor is "qualified" to perform the duties of a prime contractor. The term "qualified" is defined in Part 1 of the Regulation as: *"means being knowledgeable of the work, the hazards involved, and the means to control the hazards, by reason of education, training, experience or a combination thereof."*

To address concerns raised earlier by stakeholders, further requirements were added prior to the public hearing to address the authority of the prime contractor and to set out the limit of one prime contractor for a workplace. If an owner (or licensee) fails to appoint a prime contractor who meets all the requirements of this section, then the owner (or licensee) will be the prime contractor by default.

During the public hearing, stakeholders said it would not be possible for the owner (including a licensee) to give the prime contractor authority over people with whom the owner has no legal relationship. Subsection (a)(ii) above has been amended to reflect that concern – so that the prime contractor is expected to have authority only over people who contract, directly or indirectly, with the owner (licensee).

Also during the public hearing, stakeholders said an owner may appoint more than one prime contractor for a workplace but for different time periods, and questioned whether that would be contrary to this section. This issue is dealt with in Guideline G26.2-1 which says there can be only one prime contractor at a workplace "at any point in time"; however, a similar clarification has now been added to this section.

Stakeholders also raised questions at the public hearing about how this section would apply to forestry roads where there are multiple users and multiple licensees (owners). Policy D3-119 and Guideline G26.2-1 address situations of multiple or overlapping owners, and no amendment has been made to section 26.1.1 on that point.

Earlier stakeholders had questioned why these provisions would apply only to forestry operations, as prime contractors exist in other industries, such as construction. The reason for that is the forest industry has one of the highest fatality rates of all the high risk industries and is under review now. The other industries are not being reviewed at this time. Based on the information from the Coroner's inquest and

from stakeholders, these new provisions will increase safety in the forest industry. They may also increase safety in other industries, and that will be considered later when those other industries are under review.

Multiple-employer workplace	**26.1.2**	**(1)**	**This section applies to a multiple-employer workplace in a forestry operation.**
		(2)	**Before starting any activity that is likely to create a hazard for an independent operator or a worker of another employer, the person intending to carry out the activity must notify the prime contractor.**

Explanatory Note

This new section in Part 26 is similar to the requirements set out in Parts 20.3(1) for Construction and 23.4(1) for Oil and Gas. In these industries, often there are workers of different employers working in the same area at the same time. This new requirement will assist prime contractors in forestry operations to coordinate health and safety activities at multiple-employer workplaces, as required by section 118 of the *Act*. It requires people to notify the prime contractor of any activity that is likely to create a hazard for other workers or employers at the workplace. This will allow the prime contractor to coordinate the health and safety aspects of those activities, if necessary, – as required by the *Act*.

The section includes a reference to "an independent operator" because independent operators who obtain a POP account are considered "workers" but they have no employer. This section provides the same protection and puts the same duty on those workers as it does on other workers who have employers.

In response to feedback received during the public hearing, subsection (2) has been amended to say it is the person "carrying out the activity" that must give notice, rather than the person "planning" it, as the person planning it may be quite removed from the workplace.

The subsection was further amended after the public hearing by removing the reference to giving notice to the "owner". This change in wording has no change in effect, as it merely reflects section 118 of the *Act* which says, in a multiple-employer workplace, if the owner does not appoint someone to be the prime contractor, then the owner is the prime contractor of the forestry operation by default. Thus, there is always a prime contactor in a multiple-employer workplace.

Planning and conducting a forestry operation

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

(1) The owner of a forestry operation must ensure that all activities of the forestry operation are both planned and conducted in a manner consistent with this Regulation and with safe work practices acceptable to the Board.

(2) Every person who has knowledge and control of any particular activity in a forestry operation must ensure that the activity is both planned and conducted in a manner consistent with this Regulation and with safe work practices acceptable to the Board.

(3) The planning required under this section must

(a) include identification of any work activities or conditions at the workplace where there is a known or reasonably foreseeable risk to workers,
(b) be completed before work commences on the relevant activity, and
(c) be documented at the time of planning.

(4) If, after any planning referred to in subsection (3), there is a change in the workplace circumstances, including the work activities and the conditions of the workplace, and the change poses or creates a known or reasonably foreseeable risk to workers that was not previously identified, then

(a) the plan must be amended to identify and address the risk and provide for the health and safety of the workers at the workplace, and
(b) the amendment must be documented as soon as is practicable.

Explanatory Note

The general intent of this section is to build on the existing section 26.2 to emphasize the need for foresight in planning forestry operations. Forestry is inherently a hazardous activity. One important way to control those hazards is through careful planning. This requires anticipating what could happen before it happens, and then making a plan to eliminate or minimize the risks. This section will require a record of that planning, so that officers can ensure it is being done as required.

This section will provide flexibility to allow for innovation in the forest industry by replacing the requirement for "recognized safe work practices" with "safe work practices acceptable to the Board". This will allow new work practices to be accepted as safe even though a new practice has not been previously "recognized" as safe as required under the current subsection (1).

In response to feedback received at the public hearing, subsection (1) has been amended to make the owner (who is usually the licensee) solely responsible for overall planning. Stakeholders said the scope of subsection (1) was too broad when it applied to everyone with knowledge and control.

The same change was not made to subsection (2) as the conduct of individual activities is an appropriate area for shared responsibility for safety. This will require each person with knowledge and control of a particular activity to pay attention to safety – either by being involved personally in the activity or by ensuring there is another qualified person who is personally involved and responsible for safety. The duty "to ensure" means a person needs to take all

reasonable steps to make sure the activity is being conducted safely. This does not allow a person to just merely assume an activity is being done safely. If there is an injury or fatality, every person who had knowledge and control of the particular activity that resulted in the injury or fatality will need to be able to explain what he or she did to ensure the activity was being conducted safely and in accordance with the Regulation. Owners, including licensees, main contractors and subcontractors may all have sufficient knowledge and control of the particular activities being conducted by individual forestry workers to be considered responsible under this section.

Also since the public hearing, subsection (4) has been amended to indicate changes to plans need to be formally amended and documented only when they affect the risk to workers. This was changed as stakeholders pointed out that plans can change frequently and informally with no change in risk to workers.

Finally, the previous requirement for making the information available to a Board officer has been deleted since the public hearing, as stakeholders pointed out this obligation is covered by section 179(3)(g) of the *Act*.

Stakeholders earlier raised a question about how long the documentation must be kept - under this section and other sections as well. They say it should not be an indefinite time period. They also raised questions about how requests for a copy of documentation must be made, how soon the records must be produced, and whether any fees can be charged for copying requested records. All of those issues raise a level of detail that is more properly dealt with by Board guidelines, rather than in the Regulation.

Training **26.3** (1) ~~Workers in a forestry operation must receive training, appropriate to their duties, that is acceptable to the Board.~~ **Every worker in a forestry operation must receive the training necessary to safely perform the worker's duties.**

(2) The requirements of subsection (1) are deemed to have been met with regard to duties of a type performed before April 15, 1998 if

(a) the worker performed the duties regularly for at least 2 years prior to that date, and

(b) the duties performed were documented by April 15, 1999.

(3) ~~The measures taken to comply with subsections (1) and (2) must be documented in a manner acceptable to the Board and a copy must, upon request, be made available to the worker concerned or an officer.~~ **Records must be kept, in a form and manner acceptable to the Board, of the training provided in subsection (1).**

(4) On request of a worker, a copy of the records under subsection (3) that pertain to the worker must be provided to the worker.

Explanatory Note

The obligation for training appropriate to the duties has always been in Part 26. The section will now limit that obligation to training related to safe performance, as some stakeholders said the section was too broad as it covered all job training. They said the Board's role should be limited to safety. In hazardous jobs, such as in the forest industry, it is often difficult to separate job training from safety. If a person does not use a piece of forestry equipment properly, it can create significant safety issues for the equipment operator and others. However, the Board does not intend to regulate training if there are no related safety issues. Therefore, the intent of the section has been clarified. This does not mean that job training and safety are two different things, or that safety is something "extra". They are part of the same process, and will be looked at in that way.

In response to feedback received during the public hearing, subsection (1) has been amended slightly to clarify the obligation as being "the training necessary to safely perform" a worker's duties. Also during the public hearing, some stakeholders said this subsection duplicates section 115(2)(e) of the *Act.* However, section 115 of the *Act* is referring to duties of "employers", whereas this section is broader in its scope, as the forest industry has many "one-man" subcontractors who have no effective "employer" for the purposes of health and safety. This section will make owners, including licensees, main contractors and subcontractors responsible to ensure workers are properly trained, even if that person is not the "employer" of the worker. This will require each person in the contracting chain to take reasonable steps in this regard.

Also in response to feedback at the public hearing, the requirement of training "acceptable to the Board" has been deleted, as it did not appear necessary.

The training required under this section will be the training necessary for the safe performance of the particular duties. That will vary depending on the degree of risk of injury or disease in the work. If a person is performing duties that have little or no risk of injury, the training required by this section will be much less than if the person is performing duties with a significant risk of injury. For some duties, a particular course or certification may be required, depending on the nature of the risk and what formal training is available. For other duties, minimal or informal training or instruction may be sufficient.

The details about what must be included in the training records was removed from this section in order to create flexibility, as stakeholders said that different types of training or experience would require different types of records. The Board may decide to provide more information through guidelines about what type of records are suitable for different types of training or experience.

Forest operation fire fighting

26.3.1

(1) Workers in a forestry operation who fight a forest fire must be

(a) trained in their fire fighting duties in accordance with a standard acceptable to the Board, and
(b) physically capable of performing their duties safely and effectively.

(2) Training must be provided annually to every worker who is required to fight forest fires and records must be kept of the training provided to each worker.

(3) Except under emergency conditions, a worker who is fighting a forest fire must wear

(a) long pants and a long sleeved shirt made of cotton, wool, denim or flame resistant material, or
(b) other protective clothing appropriate to the hazards to which the worker may be exposed.

Explanatory Note

This section moves section 26.19 to this location so that two sections on training (26.3 and 26.19 re-numbered as 26.3.1) are located together in Part 26.

In response to feedback received during the public hearing, subsection (1) has been amended so that this section now applies only to workers in forestry operations, and not to professional fire fighters, who have their own training programs and requirements.

Earlier, subsection (3)(b) was added in order to create more flexibility about the clothing that can be worn by forest fire fighters.

Notice of project **26.4**

~~(1) Before commencing a forestry operation, other than a silviculture operation that will last 5 working days or less at a workplace, notice of the operation must be sent to the nearest Board office in writing, or in another manner acceptable to the Board,~~

~~(a) by the employer, or~~

~~(b) if the operation involves workers of more than one employer, or workers and independent operators, by the owner or the person engaged by the owner to be the prime contractor.~~

~~(2) The notice required under subsection (1) must identify the~~

~~(a) location of the operation,~~

~~(b) name of the owner or licensee of the trees,~~

~~(c) name of the person conducting the operation,~~

~~(d) type of work to be performed,~~

~~(e) type of equipment to be used, and~~

~~(f) procedures to be used if trees are to be harvested by commercial thinning, selective logging, individual tree selection or other similar methods.~~

~~[Amended by B.C. Reg. 185/99.]~~

(1) This section

(a) applies to a workplace in a forestry operation where the work is expected to last more than 5 working days, but

(b) does not apply where the work is limited to

(i) timber cruising,

(ii) forestry road or cutblock layout, or

(iii) surveying.

(2) Not more than 30 days and not fewer than 24 hours before the start of work at a workplace, the owner for whom the work is being done must ensure that a notice of project is provided to the nearest Board office.

(3) If it is necessary to do immediate work in order to prevent injury to workers or damage to property, work on the project may commence immediately, and the owner for whom the work is being done must ensure that a notice of project is provided to the nearest Board office at the earliest possible time.

(4) A notice of project under subsection (2) or (3) must be provided in a form and manner acceptable to the Board.

Explanatory Note

A notice of project informs the Board that work is about to start so that the Board will know where and when people are working and can plan a site visit if necessary. It is not realistic for the Board to inspect operations of very short duration in one location, and thus the 5 day exemption to all forestry work. As many stakeholders noted during the public hearing, there was an error in how the 5 day exemption was stated – that has now been corrected.

Also in response to feedback received during the public hearing, certain activities have been removed from the application of this section in (1)(b), as those activities do not give rise to the need for an

inspection by WorkSafeBC, and hence there is no need for a notice of project.

Currently some notices of project are vague about the start date and may be received months in advance of the actual start date, so the Board is unable to determine when work will actually commence. Subsection (2) will require notices of project to be provided in a timely manner, to assist the Board in being able to inspect work activities at forestry operations.

Also, subsection (2) requires that notices of project "must be provided to the nearest Board office" in order to clarify that the notice of project must be communicated to the Board before work commences and not merely put in the mail the day before, as that gives the Board no opportunity to plan an early site visit.

In response to feedback during the public hearing, an exception has been added as subsection (3) to deal with emergency situations

Subsection (4) requires a notice in "a form and manner acceptable to the Board" so that this information will be provided to the Board in a standard form that includes all the relevant information. The standard form is available online at www.worksafeBC.com and can be submitted electronically or by paper copy. .

Some stakeholders said it would be onerous to file a notice of project every month for ongoing work; however, that is not the intent of this section. If the same work continues for more than 30 days, it would not be necessary to file a new notice of project, provided the required information about the work was accurately set out in the original notice of project. However, if the work stops for a significant period of time, it will be necessary to file a new notice of project before the work starts up again. It is important to keep in mind the purpose of this section – the notice of project must accurately inform the Board about where and when certain work is being carried out so that the Board can conduct a timely site visit.

Initial safety meeting **26.5**

~~(1) A crew safety meeting must be held before commencing work in a new area.~~

~~(2) At the crew safety meeting, the workers to be employed in the area must be informed of potential hazards.~~

~~**Note:** Part 19 (Electrical Safety) provides requirements for work if there are power lines or other energized electrical equipment in the work area.~~

(1) In this section, "new work location" means a work location in a forestry operation where the crew of workers has not previously worked.

(2) Before a crew of workers starts work in a new work location, a crew safety meeting must be held to inform the workers of any known or reasonably foreseeable risks in that location and the actions to be taken to eliminate or minimize those risks.

(3) If a worker did not attend the crew safety meeting under subsection (2) for a new work location, before starting work in that location, the worker must receive a safety orientation that covers any known or reasonably foreseeable risks in that location and the actions taken to eliminate or minimize those risks.

(4) Records must be kept of the crew safety meetings and safety orientations provided under subsections (2) and (3).

Explanatory Note

The amendments to this section are to ensure safety meetings are held at appropriate times and to ensure all forestry workers at the site receive a safety orientation. This would apply to all people working at forestry workplaces, including operators of log transporters who should receive a safety orientation covering matters that are relevant to them.

This section requires crew safety meetings, and individual safety orientations for forestry workers who did not attend the crew safety meeting. It is common in forestry operations for work to be phased and, thus, some of the workers may miss the initial safety meeting because they have different start dates or for other reasons. This section will require everyone to attend a safety meeting or safety orientation before they start work at a site.

The safety meetings and orientations must deal with known or reasonably foreseeable risks – which will require an assessment of possible future risks.

As safety is a significant concern in this industry, subsection (4) will require that records of safety meetings and orientations be maintained to help ensure that proper safety instruction has been provided to all workers at each location.

During the public hearing, various questions were raised about the application of this section. However, no amendments were made as those matters can all be dealt with by policy or guideline.

General Note on "Passive" language

Part 26 contains a mixture of what may be called "passive" and "active" language. This section (26.5) and many other sections in Part 26 are written in "passive" language. "Passive" language means a section does not state who is responsible for compliance with the obligations in that section, but leaves that issue to be determined by the circumstances. For example, sections 26.5, 26.7, 26.7.2, 26.8, 26.10, 26.11, 26.12.1, 26.12.2, 26.13, 26.13.1, 26.13.2, 26.13.3, 26.14.1, 26.14.2, 26.14.3, and 26.16 do not identify any specific person as the person responsible for compliance with the obligations set out in those

sections. On the other hand, some sections are written in a more "active" style, as they specify who is responsible under the section. Examples of the "active" style include sections 26.1.1, 26.1.2, 26.2, 26.4 (2), and 26.22.1 (2). Most other Parts of this Regulation and most of the health and safety legislation in other provinces also use a mixture of "passive" and "active" language. Thus, this is a very common approach.

Some stakeholders said they do not like "passive" language as they feel every section should set out clearly who is responsible for compliance with the obligation contained in that section. However, because the structure of the forest industry (and many other industries) has become more complex, usually it is more useful to look at factors such as knowledge and control, rather than just titles such as "employer" or "worker", to determine who should be responsible for a particular obligation.

In the past, large integrated forest companies obtained a licence to harvest trees in a particular area, and much if not all of the work done under that licence was done by employees or "workers" of the one large forest company. This work included building the roads to get access to the trees, falling, bucking, skidding, yarding, loading and transporting the logs. From the perspective of the Workers Compensation Board, often there was only one large employer and its workers at a forestry operation workplace. Thus, the health and safety obligations applied to that one employer and its workers.

Now, there is much more contracting-out in the industry. This has resulted in a much more fractured and complex structure. One person or company may obtain the licence to harvest trees in a particular area, and then contract the actual harvesting to another person or company. That person then may subcontract various aspects of the project to different subcontractors, so the road building, falling, skidding, loading and transportation may all be done by different subcontractors.

These subcontractors may be small companies with employees, or possibly "independent operators". Independent operators who register with the Board are considered "workers" under the Workers Compensation Act, but they have no "employer" as they are working under a contract for services. Thus it is meaningless to impose obligations on the "employer" of such a person, as there is no "employer".

In a recent Coroner's inquest into the death of a faller, there was evidence that the prime contractor and most of the fallers in that operation each worked for their own separate one-man incorporated companies. Thus, in effect, each faller was his own employer. It is very difficult to develop effective health and safety regulations, if the obligations apply only to these very small employers where, in reality, the employer and the worker are the same person. It could have the effect of requiring a worker to supervise himself or herself, which would do little or nothing to promote safety.

This fractured workplace structure in the forest industry complicates the issue of who should be responsible for obligations such as planning, training, coordination, and supervision. The use of "passive language" in a number of sections puts responsibility for compliance on the person who has knowledge and control, rather than the person who has the title of "employer" or "worker", as those titles may not reflect who has the necessary capacity and control to be responsible for health and safety. Guideline G26.2-1 "Inspections and investigations with respect to forestry operations" describes the various workplace parties and their roles, and the factors of knowledge and control.

~~**Working alone** **26.6** The well-being of a worker working alone or in isolation in a forestry operation must be checked in accordance with the requirements of Part 4 (General Conditions).~~

Explanatory Note

This section will be deleted as the topic of working alone is covered by Part 4, specifically sections 4.20.1 to 4.22 and 4.23 of the *OHSR*.

~~Personal protective equipment~~ Highly visible clothing

26.7 (1) ~~Workers must wear highly visible outer clothing meeting the requirements of Part 8 (Personal Protective Clothing and Equipment) when~~**Highly visible outer clothing that meets the requirements of Part 8 must be worn by a worker in a forestry operation if**

(a) ~~they~~**the worker** may be endangered by **any** moving equipment **or line**,

(b) ~~their~~**the worker's** location must be routinely checked, or

(c) ~~they are~~**the worker is** involved in harvesting trees at night.

(2) Safety headgear worn **by a worker** in a forestry operation must be ~~of~~ **a** high visibility ~~orange or red~~ colour **that contrasts with the background against which the worker is working**.

~~(3) Repealed. [B.C. Reg. 312/2003.]~~
~~<See section 8.21 of the OHS Regulation.>~~

~~[Amended by B.C. Reg. 312/2003.]~~

Explanatory Note

The reference to "or line" was added in subsection (1)(a) to resolve a difference of opinion that sometimes arises at forestry worksites about whether moving yarding lines are included in "equipment". From a safety perspective, lines and equipment present the same risk of injury to people working nearby.

Also, in subsection (2) the requirement that headgear must be either orange or red was replaced with a less prescriptive requirement that headgear must contrast with the background.

During the public hearing, some stakeholders said this section duplicates sections 8.24 and 8.25 in Part 8. However, no amendment was made as, in contrast to Part 8, subsection (1) above deals with more than just risks from mobile equipment as it also concerns the need to locate or check on workers who are working alone or at night, and subsection (2) addresses safety "headgear" rather than just "apparel".

Climbing equipment **26.7.1**

(1) In this section, "climber" means a worker who climbs trees or wooden spars at the workplace.

(2) Unless a climber uses other equipment acceptable to the Board, a climber must use

(a) a safety belt,
(b) a climbing rope or strap, and
(c) climbing spurs.

(3) If a climber must disconnect the climbing rope or strap in order to move by an obstacle, the climber must use a second climbing rope or strap to ensure continuous protection while passing the obstacle.

(4) Before a climber begins a climbing activity, a written climber rescue plan must be developed and communicated to all persons associated with the climbing activity.

(5) If a climber rescue plan requires another climber,

(a) a duplicate set of climbing equipment must be available for immediate use at the climbing work site, and
(b) the other climber must be available to carry out any required rescue.

(6) If there is a possibility of a climbing rope or strap being severed in the conditions present at a climbing work site, then

(a) the rope or strap must be made of material that cannot be severed, or
(b) the climber must use a second climbing rope or strap.

(7) Climbing equipment must be maintained in good order.

(8) A climber must inspect the climbing equipment before each use to ensure it is in good order.

Explanatory Note

This section relocates these requirements from section 26.36 to this location to make it clear they apply to all situations where workers climb trees and not just to yarding operations;

Subsection (2) refers to "other equipment acceptable to the Board" for added flexibility – this will mean, for example, arborists will not have to use spurs if that is harmful to the tree and, instead, they can use other equipment if the Board is satisfied it will provide a comparable level of safety.

Previously this section made some provision for rescue, by requiring duplicate climbing equipment, but said nothing more about being prepared for a rescue situation. There is little point in having duplicate equipment if there is no one to use it and no rescue plan. Therefore, the section will now require a written rescue plan and, where required, a second climber. This will provide a more complete set of requirements about planning for rescues in these situations. The section will also relax the current requirement that says there must always be duplicate climbing equipment available in these situations. This change will allow for other means of rescue, but those means will need to be set out in the written rescue plan. For example, if the written rescue plan involves the use of a bucket truck, a duplicate set of climbing equipment is not required.

The old section 26.36(7) was deleted as it refers to a process, riding on a passline, that is no longer practiced in this industry.

Weather conditions	**26.7.2**	**When weather conditions create a hazard for a worker in a forestry operation, additional precautions must be taken as necessary for the safe conduct of the work.**

Explanatory Note

This is not a new requirement but, rather, the requirements in section 26.17 have been moved to this new location so they come within the General Requirements sub-part of Part 26.

Cutting cables	**26.8**	A hammer or axe must not be used to cut wire rope, unless designed for that purpose.
Chainsaw training	**26.9**	Repealed. [B.C. Reg. 312/2003.] <See section 26.3 of the OHS Regulation.>
Metal in saw logs	**26.10**	A spike, drift bolt, nail, or any other metal must not be left in any recoverable log.

Explanatory Note

There are no changes to these three sections.

Dangerous trees **26.11**

~~(1) If work in a forestry operation will expose a worker to a dangerous tree, the tree must be removed.~~

~~(2) Trees that will interfere with rig-up, the movement of lines and equipment, or that could be pushed or pulled into the work area must be removed.~~

~~(3) Saplings over 6 m (20 ft) tall, in an area where cable logging is being done, must be removed before yarding commences.~~

~~(4) If it is not practicable to comply with subsection (3), such as during partial cutting operations, alternative work methods or procedures which minimize the risk to workers may be used, and the work must be directed by a supervisor who has, as far as practicable, controlled the danger to any worker.~~

~~(5) Any dangerous tree, regardless of height, located within an active hand falling or cable logging operation must not interfere with safe falling or yarding practices, and if it does interfere, it must be removed.~~

~~(6) A dangerous tree in a forestry operation may be left standing during operations other than construction or harvesting if~~

~~(a) no significant ground vibrations are likely to be produced,~~
~~(b) no work will be done within reach of the tree when wind speed exceeds 20 km/h (12 mph), and~~
~~(c) a tree assessor who has completed a training program acceptable to the Board determines that the tree will not be dangerous to workers during the planned activity.~~

~~(7) If tree planting is to be done in an area that has more than 500 dangerous trees per hectare, the Board may approve a request to work without removing all the dangerous trees if, before work commences,~~

~~(a) a representative sample of the dangerous trees is assessed by a tree assessor who has completed a training program acceptable to the Board,~~
~~(b) any findings of the assessment as to the removal of dangerous trees or other trees are implemented, and~~
~~(c) no silviculture is done within reach of dangerous trees when wind speed exceeds 20 km/h (12 mph).~~

~~**Note:** Subsection (7) normally applies to forested areas where trees have been killed or damaged by fire, insects or disease.~~

(1) If it is known or reasonably foreseeable that work will expose a worker to a dangerous tree,

(a) the tree must be felled, or

(b) a risk assessment of the tree must be undertaken by a person who has completed a training program acceptable to the Board.

(2) If a risk assessment under subsection (1) determines that a tree poses a risk to a worker, the recommendations made in the risk assessment for eliminating or minimizing the risk must be implemented before the work referred to in that subsection starts.

(3) Despite subsections (1) and (2), if work in a forestry operation is to be carried out in an area that has more than 500 dangerous trees per hectare, the Board may approve a request to work without felling or assessing all the dangerous trees if, before the work starts,

(a) a person who has completed a training program acceptable to the Board conducts a risk assessment of a representative sample of the dangerous trees, and

(b) any recommendations made in the risk assessment for eliminating or minimizing the risks are implemented.

Explanatory Note

The present wording of 26.11 makes reference to a number of different hazards presented by trees standing in forestry operations. It refers to "dangerous" trees as defined in section 26.1. These trees constitute a hazard primarily because of the condition of the tree. The section also refers to the potential hazards of live trees which normally would not constitute a hazard to persons unless pulled or pushed over by equipment. The provisions dealing with dangerous trees from those dealing with trees that might become hazards due to logging activities have been separated.

The current section also has a provision for the evaluation of danger trees that applies only to tree planting operations to deal with dead or dying trees that are desirable for wildlife habitat. This provision has been extended to other forestry activities as well.

The subsections (1) and (2) deal with "dangerous trees" and provide some flexibility in deciding how to eliminate or minimize the risk. They would replace the requirements found in the current subsections (1), (5) and (6).

The new subsection (3) uses the same threshold of "more than 500 dangerous trees per hectare" that is set out in the current subsection (7) for determining when it is necessary to assess only a representative sample of the trees rather than every tree. Subsection (3) then removes the limitation relating to "tree planting" so this provision now applies to all activities in a forestry operation. Finally, subsection (3) applies the same approach to assessing the risk as in subsections (1) and (2).

The requirements contained in the current subsections (2), (3), and (4) are moved to the new section 26.39.1 to separate dangerous trees from other trees that may become a hazard.

This section was amended following the public hearing to allow for "reasonably foreseeable" exposure to cover issues where surveyors and cruisers are simply walking through virgin standing timber where there is very low risk of disturbance.

Vehicle load limits	**26.12**	Repealed. [B.C. Reg. 312/2003.] <See section 4.3 of the OHS Regulation.>

Explanatory Note

This provision that limited vehicle loads to the limits specified by the manufacturer or certified by a professional engineer was repealed in 2003.

PART 26: FORESTRY OPERATIONS

EQUIPMENT OPERATION

Explanatory Note

a new sub-part is created to address equipment operation. Forestry operations have become increasingly mechanized. This requires increased attention to protection for equipment operators and for people working in close proximity to these large, mobile pieces of equipment.

Equipment capabilities	**26.12.1**	**(1)**	**Any equipment designed for a specific function in a forestry operation or adapted for use in a forestry operation must be capable of performing safely the functions for which it is being used.**
		(2)	**The requirements of subsection (1) are met if the equipment is used**
			(a) in accordance with the manufacturer's instructions,
			(b) as specified by a professional engineer, or
			(c) in a manner acceptable to the Board.

Explanatory Note

Equipment capabilities are becoming an issue as innovative logging methods require that machinery and equipment originally designed for one function be adapted to another. An example of this is a backhoe adapted to steep side hill mechanical falling, hoe chucking or processing. Operators often ignore the need for the use of single rather than double or triple grouser pads for work on steep, slippery side hills. An investigation into a recent accident involving a log transporter concluded that the compensator system on the reach of the trailer had been modified. The modification was not in accordance with the manufacturer's instructions and the subsequent failure of the reach caused the accident. This section would require equipment to be used as designed or as subsequently approved by an independent source or in a manner acceptable to the Board.

Radio controlled equipment	**26.12.2**	**In a forestry operation, any equipment that is controlled by a remote control device must be equipped with a "fail safe" or "stop" mechanism that becomes operational if the remote control device fails.**

Explanatory Note

This is not a new requirement but, rather, moves the current section 26.35 to this location to include it under the new sub-part "Equipment operation". The language in section 26.35 has been changed slightly including the removal of the word "radio" to allow for the use of any "remote control" devices, to recognize changes in technology.

Non-slip floors and controls	**26.13**	~~If an equipment operator or helper is required to wear caulked footwear because of the nature of the work duties, then the floors, steps, and operating foot controls of the equipment being used must have a surface cover which provides an effective grip for the caulks.~~ **Foot controls, floors, steps and similar surfaces where workers in a forestry operation walk or stand must be constructed of, or covered with, a non-slip material suitable for the footwear worn.**

Explanatory Note

Although this section is primarily focused on eliminating the slipping hazard on steel decks when caulk boots are worn, it has been expanded to deal with all types of footwear and to include all workers, in addition to the equipment operator or helper, who may need to access equipment.

Equipment operator protections

26.13.1 (1) Protective guards must be provided and used on a self-loading log transporter or similar equipment unless

(a) it is not practicable to do so, and
(b) the absence of guards does not pose a hazard to the equipment operator.

(2) The heel bar on the operator's side of the loader boom of a self-loading log transporter must be equipped with a deflector shelf and must not be used for heeling logs.

(3) If pushing or pulling the boom too far on logging equipment could cause the backstop to crush the equipment operator's cab, boom stops must be installed on the equipment.

Explanatory Note

These are not new requirements. Subsections (1) and (2) are found in the current section 26.70 and subsection (3) is found in the current section 26.32. These three requirements have been moved to this location under the new "Equipment operation" sub-part as they all deal with Operator protection. There are some minor wording changes for clarity that do not change the meaning of the current section.

Maintaining operator vision	**26.13.2**	**Log handling equipment must not be moved with a load lifted higher than is necessary to provide unobstructed vision for the equipment operator.**

Explanatory Note

Section 26.60 “Log Handling Equipment” has been moved here, with a minor change in wording, to be included in the new “Equipment operation” sub-part.

Mobile yarders **26.13.3**

(1) A mobile yarder must have a permanently attached, legible and easily visible sign provided by the equipment manufacturer or a professional engineer that includes the following:

- **(a) the name of the manufacturer and the date of manufacture of the yarder, unless this information cannot be determined;**
- **(b) the model and serial number of the yarder, unless this information cannot be determined;**
- **(c) if the yarder is designed for skyline, slackline or modified slackline systems, the maximum and minimum size of skyline, mainline and haulback that must be used;**
- **(d) the maximum diameter of the mainline of the yarder;**
- **(e) if required for the yarder, the minimum size, number and placement of guylines;**
- **(f) if required for the yarder, the placement and number of outriggers;**
- **(g) the permissible yarding angles of the yarder;**
- **(h) the auxiliary equipment that may be safely attached to the yarder.**

(2) Subsection (1) is satisfied if the information is available at the workplace where the mobile yarder is located.

(3) A mobile yarder must be rigged and used in accordance with the information provided in subsection (1) (c) to (h).

(4) A mobile yarder must not be moved with the spar or tower in the vertical operating position unless the stability of the equipment can be maintained.

(5) Multiple throttle controls on a mobile yarder must be arranged to prevent the simultaneous operation of 2 or more controls.

(6) A mobile yarder and its attached equipment must be inspected frequently and at least as often as specified in the equipment manufacturer's instructions.

(7) Manufacturer's manuals for a mobile yarder must be available, at the workplace where the yarder is located, to the following persons:

- **(a) the yarder operator;**
- **(b) any person maintaining the yarder.**

Explanatory Note

This is not a new section as most of the requirements are already contained in the current section 26.33. That section has been moved here to be included in the new "Equipment operation" sub-part. There are a few changes to the section. Subsection (2) is new and provides flexibility as there are reports that, sometimes, people steal the signs that are attached to equipment. Subsection (6) adds a requirement for inspection as recommended by the manufacturer. In subsection (7) requires manuals to be available to the people using and servicing the machine.

Subsections (1)(a) and (b) allow for the use of the yarder if the name of the manufacture, date of manufacture, the model or the serial number of the yarder is not known and cannot be determined.

Equipment clearance **26.14**

~~(1) A minimum space of 60 cm (2 ft) must be maintained between the swinging portion of mobile equipment and any obstacle adjacent to the equipment.~~

~~(2) A worker must obtain permission from the equipment operator before proceeding through the operating radius of the equipment.~~

~~(3) An equipment operator must obtain permission from workers in the area before entering or proceeding through a work area where equipment movement could create a hazard to workers.~~

Explanatory Note

This section has been amended by removing subsection (1) as this is covered in Part 16.

Subsection (2) has been moved to the new section 26.14.1 (3) dealing with “Hazard area” and subsection (3) to the new section 26.14.2 (3) dealing with “Safe work area”.

Hazard area of logging equipment	**26.14.1**	**(1) A hazard area created by the operation of logging equipment must be identified.** **(2) Every hazard area identified under subsection (1) must be communicated to all workers in close proximity to the operating logging equipment and to the hazard area.** **(3) A worker must not enter into or proceed on foot through a hazard area referred to in subsection (1) unless the equipment operator first gives permission to the worker in a clear and unmistakable manner.**

Explanatory Note

This new section recognizes the inherent risks of equipment used in mechanical harvesting and processing. Much of this equipment is large, fast, powerful and noisy. Some of this equipment picks up large trees or logs and moves them around quickly. Operators cannot see or keep an eye on everyone else at the worksite. People on the ground cannot always anticipate where the machinery or its load will go next. This has resulted in a number of serious injuries and fatalities.

This section requires planning to reduce these inherent risks. It requires the “hazard area” of all equipment to be identified. In Part 1.1 there is a new definition for “hazard area”. This information must be communicated to other people working in the area. Those people are required to stay out of the hazard area, unless they get permission in a clear and unmistakable manner. If this is followed, it should avoid collisions between logging equipment and their loads with people working in close proximity. This section should be read together with the next section – 26.14.2 on safe work areas.

Designated safe work area	**26.14.2**	**(1) A safe work area must be designated for workers on foot in close proximity to any operating logging equipment.** **(2) The boundaries of a safe work area designated under subsection (1) must be communicated to all workers within and in close proximity to the safe work area.** **(3) No equipment may enter into or proceed through a safe work area unless** **(a) the equipment operator first obtains permission in a clear and unmistakable manner from all of the workers in that safe work area or from the supervisor of those workers, and** **(b) those workers take a safe position.**

Explanatory Note

This section has a similar goal as the previous section – to eliminate or minimize the risk to workers from nearby equipment. It requires appropriate planning to eliminate contact between logging equipment and people working in the area. Section 26.14.1 provides a hazard area around equipment. This section provides a safe area for people working close to logging equipment. Equipment must to stay out of this safe area except when the operator gets clear and unmistakable permission to enter.

Traffic control **26.14.3** **If vehicles on a road in a forestry operation are required to drive through a hazard area identified in section 26.14.1 or through a safe work area designated in section 26.14.2, effective traffic control appropriate to the hazard must be implemented.**

Explanatory Note

This section adds to the two previous sections. It recognizes certain activities will overlap in a forestry workplace and, sometimes, vehicles must travel through the hazard area of other equipment or through safe work areas. There have been several incidents reported where vehicles transporting workers have been damaged by contact with logs or operating equipment. This section requires consideration of whether there is likely to be vehicle traffic through these areas and, if so, to implement appropriate measures to control the risk.

This section differs from Part 18 (Traffic Control) in that Part 18 primarily protects workers in a work zone from the hazards of traffic. This section not only protects workers from traffic, but addresses protection of vehicles usually carrying workers of other employers from the hazards of the work process if the vehicles travel through a forestry work area on a roadway. For example, if a grapple yarding operation is set up on a roadway and crews working farther up the road must travel through the hazard area of the equipment or the designated safe area for workers of the grapple yarding operation to reach their work area, appropriate traffic control must be used.

~~**Log pile heights**~~	~~**26.15**~~	~~Log piles must not be higher than the safe operating reach of equipment being used to handle the logs.~~

Explanatory Note

This section has been moved to section 26.56 (4) “Work area arrangement” which is located in the sub-part on “Forestry Work Areas”. There is no change in wording.

Slope limitations **26.16** (1) Repealed. [B.C. Reg. 312/2003.]

(2) ~~If the manufacturer's maximum slope operating stability limit for equipment is not known, written procedures that have been developed specifically for the worksite to ensure machine stability must be followed when the equipment is used on slopes.~~ **If the manufacturer's maximum slope operating stability limit for logging equipment is known, the equipment must be operated within that limit**.

(3) ~~If the manufacturer's information and information under subsection (2) is not available, the following limits apply.~~ **If the manufacturer's maximum slope operating stability limit for logging equipment is not known, the equipment must be operated within the following limits:**

(a) a rubber tired skidder must not be operated on a slope which exceeds 35%;
(b) a crawler tractor, feller buncher, excavator and other similar equipment must not be operated on a slope which exceeds 40%;
(c) any other forestry equipment specifically designed for use on a steep slope must not be operated on a slope which exceeds 50%.

(4) Despite subsections (2) and (3), but subject to subsection (5), logging equipment may be operated beyond the maximum slope operating stability limits specified in those subsections if

(a) a qualified person conducts a risk assessment of that operation, and
(b) written safe work practices acceptable to the Board are developed and implemented to ensure the equipment's stability during operation.

(5) Despite anything in this section, logging equipment must not be operated in a particular location or manner if its stability cannot be assured during that operation.

[Amended by B.C. Reg. 312/2003.]

<See also section 4.3 of the OHS Regulation.>

Explanatory Note

This section combines the current sections 26.16 and 26.54, as they both concern operating equipment on slopes. There are some changes in wording and organization from the original sections.

The over-riding requirement here is the need to ensure equipment stability for the safety of the operator and any other workers in the area. That is expressed in subsection (5). Subject to that requirement, the other sections require adherence to the manufacturer's specifications, if known, or set out other slope limits if the manufacturer's limits are not known, and then provide an exception to those limits in subsection (4). Subsection (4) requires a risk assessment by a qualified person and safe work procedures acceptable to the Board. The term "qualified" is defined in Part 1 as being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof.

These sections will cover all logging equipment, including hoe forwarders and danglehead processors. Like all other equipment, they are subject to subsection (5).

~~**Weather conditions**~~	~~**26.17**~~	~~When weather conditions create hazards to workers, additional precautions must be taken as necessary for the safe conduct of the work.~~
Landslides/ avalanches	**26.18**	In a forestry operation where there may be a risk of a landslide or avalanche (a) the risk must be assessed in accordance with a standard acceptable to the Board, (b) if a risk is found to be present, written safe work procedures must be developed meeting the requirements of the standard, and (c) workers must be educated in the safe work procedures.

Explanatory Note

The requirements of 26.17 were moved to 26.7.2.

It had been proposal to delete section 26.18 and have this topic covered by the proposed new section 4.1.1 in Part 4 on Terrain Stability Assessment. However, based on feedback at the public hearing, further stakeholder consultation is required on section 4.1.1. Therefore, section 26.18 has now been added back into Part 26 in order to deal with the issue of landslides and avalanches, until work is completed on section 4.1.1.

~~**Forest fire fighting**~~	~~**26.19**~~	~~(1) Before fighting a forest fire, workers must be trained in their fire fighting duties in accordance with a standard acceptable to the Board, and be physically capable of performing their duties safely and effectively.~~ ~~(2) Workers required to fight forest fires must be retrained annually.~~ ~~(3) The employer must keep training records for each worker required to fight fires.~~ ~~(4) Except under emergency conditions, a worker engaged in firefighting must wear pants and a long sleeved shirt of cotton, wool, denim or flame resistant material.~~

Explanatory Note

The requirements in this section were moved to section 26.3.1 so that it is next to section 26.3 which is also about training.

~~**Night operations**~~ ~~**26.20**~~

~~(1) Repealed. [B.C. Reg. 312/2003.]~~

~~(2) If a forestry operation is conducted at night the sources of illumination provided under Part 4 (General Conditions) must be located and directed so that shadows and glare are minimized.~~

~~(3) Cap lamps or other local sources of illumination acceptable to the Board must be used if~~

~~(a) the light intensity in a work area is less than 22 lux (2 ft candles), and~~

~~(b) it is impracticable to provide illumination by any other means.~~

~~[Amended by B.C. Reg. 312/2003.]~~

~~<See also Part 4 (General Conditions – Illumination) of the OHS Regulation.>~~

Explanatory Note

This section has been deleted and a corresponding provision has been added to Part 4, which already deals with illumination. The changes to Part 4.65 will reflect the provisions found in the current subsection (3) above.

~~FALLING AND BUCKING~~MANUAL FALLING AND BUCKING

Application **26.20.1** **Sections 26.21 to 26.29 apply only to manual falling and bucking activities.**

Explanatory Note

This sub-part has been renamed “Manual Falling and Bucking” to distinguish the requirements contained in this sub-part from the requirements specific to mechanical falling which will be covered in the new sections 26.29.1 – 26.29.4, under the new sub-part on “Mechanical Falling”.

Faller qualifications **26.21** (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~~ **A worker must not fall trees or be permitted to fall trees, or conduct or be permitted to conduct bucking activities associated with falling trees, unless**

(a) the worker is qualified to do so to a standard acceptable to the Board, and
(b) the work being performed is within the documented and demonstrated capabilities of that worker.

(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~~ **Subsection (1) (a) does not apply to a worker who is in a falling or bucking training program that is acceptable to the Board.**

Explanatory Note

It is important to note that this section is not specific to forestry operations and would apply to all workers required to fall trees regardless of the industry. WorkSafeBC considers the "B.C. Faller Training Standard" as acceptable for fallers in the forestry and oil and gas sectors. Other standards may be appropriate for other sectors depending on specific circumstances. For example in forestry operations, fallers are normally expected to work independently and with a level of supervision appropriate to the risks of a production falling operation. A worker in another sector may not require as rigorous a standard of qualification in situations where there are higher levels of supervision and lower exposure to risk. In any case, the standard of qualification must be acceptable to the Board.

The exemption in subsection (2) is necessary so that people can fall trees while they are training as a faller.

This section was amended from the draft proposed for stakeholder consultation by removing the reference to bucking. It was felt the reference to bucking may inadvertently require the qualification of landing buckers or other workers who use chainsaws but do not fall trees. Following the public hearings the reference to bucking was put back in, but clarification added to limit the reference to those activities associated with the falling activity.

Forestry operation faller training **26.22**

(1) ~~A worker in a forestry operation must, before commencing work as a faller, receive training for falling that is acceptable to the Board.~~ **A worker may not work as a faller in a forestry operation unless the worker receives training for falling that is acceptable to the Board and is certified in writing as a competent faller under this section.**

(2) ~~The requirements of subsection (1) are deemed to have been met if~~ **Without limiting subsection (1), faller training must include the following:**

(a) ~~the worker has performed falling duties regularly for at least 2 years before April 15, 1998, and~~**taking basic training in falling trees by working one-on-one with a qualified faller or trainer for a period of not less than 30 days;**

(b) ~~the worker's falling activity is evaluated at the workplace and the worker is certified as a competent faller by a qualified supervisor or trainer, and~~**in the presence of a qualified supervisor or trainer, taking a written or oral examination on falling;**

(c) ~~the worker passes a written or oral examination on falling in the presence of a qualified trainer.~~**after completion of basic training under paragraph (a) and passing the examination under paragraph (b), working as a trainee faller under the close supervision of a qualified faller or trainer for a minimum period specified in subsection (3).**

(3) ~~Unless subsection (2) applies, a faller's training must include~~ **The required minimum supervision period in subsection (2) (c) is**

(a) ~~a period of basic training in falling trees, of a minimum of 30 days working, one on one, with a qualified faller or trainer~~ **180 days**, **or**

(b) ~~a written or oral examination on falling in the presence of a qualified trainer, and~~ **a shorter period as determined by a qualified supervisor or trainer, if the supervisor or trainer is satisfied that the worker is competent to perform the tasks of a faller.**

~~(c) after passing the examination, working as a trainee faller under the close supervision of a qualified faller or trainer for a period of 180 days, or for a lesser period if the person supervising is satisfied the worker is competent.~~

(4) The person supervising ~~the faller's training must~~**a trainee faller under subsection (2) (c) must**

(a) ~~keep weekly records of the trainee's progress, and~~ **evaluate the trainee's work on a weekly basis,**

(b) ~~certify in writing that the trainee is competent~~ **keep records of all evaluations done in respect of the trainee, and**

(c) **if, at the end of the training period, the trainee's falling activity meets a standard acceptable to the Board, verify in writing that the trainee has demonstrated the competence necessary for certification under subsection (5)**

(5) ~~The training required under subsections (1) to (3) must be documented in a manner acceptable to the Board, and a copy of the documents must be made available to the worker concerned or an officer, upon request.~~ **If all of the requirements of subsections (1), (2) and (4) are satisfied in respect of a worker who is a trainee faller, a person acceptable to the Board may certify in writing that the worker is a competent faller.**

(6) A record of the training that is taken under this section must be maintained and kept in a form and manner acceptable to the Board and a copy of that record must be made available to an officer or the trainee to whom the record pertains.

(7) Subsection (2) does not apply to a worker who satisfies all of the following requirements:

- **(a) the worker has performed falling duties regularly for at least 2 years before the evaluation under paragraph (b) of this subsection takes place;**
- **(b) the worker's falling activity is evaluated by a qualified supervisor or trainer and it meets a standard acceptable to the Board;**
- **(c) in the presence of a qualified supervisor or trainer, the worker passes a written or oral examination on falling;**
- **(d) the worker is certified in writing as a competent faller by a person acceptable to the Board.**

(8) For the purposes of subsection (7) (b), the qualified supervisor or trainer must

- **(a) keep a record of the evaluation, and**
- **(b) verify in writing that the worker has demonstrated the competence necessary for certification under subsection (7) (d).**

Explanatory Note

This section has been reworded with no change in intent. The requirements of the subsections have been re-ordered to reflect the change in focus from the certification of existing fallers to the training and certification of new fallers. Provision has been retained in subsections (7) and (8) to certify experienced fallers.

Following the public hearings subsection (4.1) was added to explicitly define the certification process. This process was implicit in the application of this section.

Falling supervisors for forestry operations

26.22.1 **(1) A qualified supervisor must be designated for all falling and associated bucking activities in a forestry operation.**

(2) The supervisor designated under subsection (1) must

(a) ensure that the falling and bucking activities are planned and conducted in accordance with this Regulation,
(b) inspect the workplace of each faller at time intervals appropriate to the risks, and
(c) keep a record of every inspection conducted under paragraph (b).

(3) The supervisor designated under subsection (1) must not undertake or be assigned activities which interfere with performance of the supervisor's duties under subsection (2).

Explanatory Note

Lack of supervision and direction has been cited as a significant contributing factor in numerous fatal and serious injury investigations involving fallers. Although some hand falling is conducted in interior forestry operations, the majority of the timber in coastal operations is hand felled. Historically, the bulk of the coastal forestry sector operated in what could be described as a traditional corporate structure. Infrastructure was normally in place to ensure health and safety requirements were met, including provision for supervision. The traditional falling supervisor in coastal operations was known as a "bullbucker". The bullbucker was usually an experienced faller and was responsible for the planning, coordination and oversight of all falling activities.

Over the past decade the coastal forestry sector has evolved into a hierarchical structure of several layers of contractors and subcontractors interposed between the licensee and the persons actually engaged in falling operations. These fallers may be workers or independent operators. The layers of contractors and subcontractors may be employers or independent operators. The traditional falling supervisor or bullbucker essentially disappeared. Many falling contractors however, employ supervisors to oversee the work of falling subcontractors. If the fallers are independent operators however, there is no obligation under the *Act* or *OHSR* to do so.

This amendment engenders the role of this critical workplace party in regulation.

The jury in a recent coroner's inquest recommended daily supervision of fallers, including minimum inspectional intervals, shorter intervals where unsafe work practices have been noted. The appropriate level of supervision is inversely proportional to the training, experience and workmanship of the person being supervised. Subsection 2(b) allows for an assessment of the risks, considering training, experience and workmanship leading to the appropriate level of supervision. For example an experienced, certified faller who consistently demonstrates good falling practices would require less attention than a new faller or a faller who is known to demonstrate poor falling practices.

Stakeholder feedback questioned what is meant by requiring the falling supervisor to be "qualified". This term is defined in Part 1. It means *being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof*. In most cases, the falling supervisor will be an experienced qualified faller. There may be other cases, however where other persons may meet the definition of "qualified". For example, an experienced contractor in the interior hiring a single manual faller to fall trees that could not be reached by a feller buncher may, through education, training and experience, be qualified to supervise the faller.

Stakeholders raised questions about the meaning of subsection (3) which requires that the supervisor must not undertake or be assigned activities which will interfere with supervisory duties. The application

of this subsection will vary depending on the circumstances. In some cases the supervisor will be responsible for a small enough number of fallers that the supervisor may be able to undertake other work and still fulfill the requirements of subsection (2). In other circumstances the number of fallers may require a full-time supervisor.

The reference to “acceptable to the Board” was removed following the public hearings. It was felt that this statement was redundant as the regulation provides for safe falling procedures.

Procedures for falling and bucking **26.23** ~~(1) The employer must ensure that fallers and buckers follow written work procedures that include safe work practices for~~ **In this section and in section 26.24, "brushing" means the striking of a standing tree by a tree being felled if the strike is a direct blow or a glancing blow of sufficient force to cause one or more branches to break at or near the stem of the standing tree.**

~~(a) minimum and maximum distances between fallers and other workers,~~
~~(b) controlling the fall of trees and dangerous trees,~~
~~(c) bucking,~~
~~(d) using lines and jacks to fall trees, if required,~~
~~(e) summoning and rendering assistance to deal with a difficulty or emergency, and~~
~~(f) ensuring each faller's well-being at least every half hour and at the end of the work shift.~~

(2) Fallers and buckers associated with the falling activities must be provided with and follow written safe work practices acceptable to the Board for the type of work activity they perform, including procedures for the following:

(a) establishing minimum and maximum distances between fallers and other workers;
(b) planning and constructing escape routes;
(c) controlling the fall of trees;
(d) minimizing unnecessary brushing;
(e) dealing with dangerous trees;
(f) bucking trees and logs;
(g) using mechanical assistance to fall trees;
(h) summoning and rendering assistance to manage a falling difficulty or to deal with an emergency;
(i) conducting special or innovative harvesting techniques;
(j) ensuring the well-being of each faller at least every half hour and at the end of the work shift.

Explanatory Note

This section merely copies the existing section with some wording changes and additions. A recent coroner's inquest into the death of a faller heard evidence that the faller had no escape route and was dealing with a special situation, and the faller working closest to him had difficulty locating the fatally injured faller and summoning assistance.

Many fatal and serious injury investigations involving fallers have determined that the failure to have adequate escape routes, unnecessary brushing and dangerous trees have contributed to the accidents. These matters have been added to this list of procedural issues that must be addressed in the safe work procedures. Along with this is a definition for "brushing". As well, a requirement was added to have safe work procedures for special or innovative harvesting techniques, which would include falling uphill and single stem harvesting, as these activities can be very hazardous unless safe work procedures are developed in advance.

Responsibilities ~~of fallers and buckers~~ for falling and bucking

26.24 (1) ~~Before a tree is felled, a faller or an operator of a mechanized falling machine must ensure that all workers are clear of the area within a circle centred on, and having a radius not less than twice the height of the tree.~~ **Subject to section 26.29 (3), before a tree is felled, all workers must be clear of the area within a 2 tree-length radius of the tree.**

(2) ~~Before falling or bucking commences, the faller or bucker must ensure that obstructions to falling or bucking are cleared, and a safe escape route to a predetermined safe positions is prepared.~~ **Before falling or bucking starts, all obstructions to the activity must be cleared and a safe escape route to a predetermined safe position must be prepared.**

(3) A tree must not be felled if it could strike any stationary or running line of any operational equipment.

(4) If it is necessary to pack or shovel snow to reduce stump height, the depth of the depression at the base of the tree must not exceed 45 cm (18 in).

(5) ~~When falling a tree, the faller must ensure that~~**The falling of a tree must be conducted in accordance with the following procedures:**

(a) ~~a sufficient undercut is used,~~ **a sufficient undercut must be used;**

(b) ~~the undercut is complete and cleaned out,~~ **the undercut must be complete and cleaned out;**

(c) ~~sufficient holding wood is maintained,~~ **sufficient holding wood must be maintained;**

(d) ~~the backcut is higher than the undercut to provide a step on the stump,~~ **the backcut must be higher than the undercut to provide a step on the stump;**

(e) ~~wedging tools are immediately available and, unless the tree has a pronounced favourable lean, wedges are set, and~~ **wedging tools must be immediately available and, unless the tree has a pronounced favourable lean, wedges must be set.**

~~(f) the tree being felled does not unnecessarily brush standing trees.~~

(5.1) When a tree is being felled, the tree must not brush standing trees if that can be avoided.

(6) ~~A faller may only use one tree to cause other partially cut trees to fall in succession if~~ **A tree must not be used to cause another partially cut tree to fall in succession unless**

(a) ~~this procedure is being used~~ **it is necessary to do so** to overcome a specific falling difficulty~~or hazard~~, **and**

(b) ~~a wedge is driven into the backcut of each cut tree, and~~ **the succession falling is done in accordance with subsection (6.1).**

(c) ~~only those trees necessary to deal with the falling difficulty are cut up~~.

(6.1) The following apply for the purposes of subsection (6):

(a) only one tree may be used to cause another partially cut tree to fall in succession;

(b) only those trees necessary to deal with the falling difficulty referred to in subsection (6) are partially cut;
(c) a wedge is driven into the backcut of each partially cut tree.

(7) When a tree starts to fall, the faller **and any other worker present** must move quickly to a predetermined safe position, at least 3 m (10 ft) away from the base of the tree where possible, and take cover if available.

(8) ~~A bucker must ensure that all workers are clear of the hazardous area before a tree or log is bucked.~~ **All workers must be clear of the hazard area before a tree or log is bucked.**

Explanatory Note

Most of this current section is unchanged although there is some re-wording. The only significant change is to use more general or "passive" language, for the reasons set out in the General Note that follows section 26.5. This change provides flexibility and allow a determination as to which of the workplace parties is accountable for the obligation in the circumstances.

For example, the existing subsection (1) places the obligation solely on the faller to ensure that all workers are clear of the active falling area. Under certain conditions another worker could enter the active falling area without the knowledge of the faller. The language would allow other worksite parties to be held accountable for that worker's entry into the active falling area. This could be the worker himself, the worker's supervisor or any other person directing the worker's activities, depending on the circumstances.

The reference to mechanized falling in subsection (1) has been removed as this will be dealt with in the new section 26.29.4 which is located in the new sub-part on Mechanical Falling.

The amendment to subsection (7) recognizes that section 26.29 allows other people to be present at the base of the tree.

Dangerous trees and logs **26.25** (1) Falling or bucking must not be started if

(a) a tree or log is in a ~~dangerous~~ condition **that**, **if felled or bucked in that condition, the tree or log would pose a reasonably foreseeable risk to a worker**, or

(b) ~~there is reason to doubt that the cut can be completed.~~**it appears that the tree cannot be completely felled or the bucking cut cannot be completed, as the case may be.**

(2) ~~If a tree is not completely felled~~, **If for any reason a partially cut tree cannot be completely felled and must be bypassed or left unattended, then the following apply:**

(a) ~~the faller or the operator of a mechanized falling machine must clearly mark the tree, discontinue work in the hazardous area, alert any workers who may enter the danger area, and notify the immediate supervisor, and~~ **the tree must be clearly marked;**

(b) ~~the supervisor must notify all workers who might be endangered, and must take appropriate measures to ensure that the tree is safely felled before other work is undertaken in the hazardous area.~~ **work, other than that necessary to complete the falling of the tree, must stop in the hazard area until the tree is felled;**

(c) any worker who could enter the hazard area must be alerted to the hazard;

(d) the supervisor for that falling activity must be notified.

(3) ~~If a bucking cut is incomplete,~~ **The supervisor referred to in subsection (2) (d) must ensure that**

(a) ~~the bucker must immediately cut or mark a distinct cross on the top of each end of the log, and must notify the immediate supervisor at the end of the work day~~ **all workers at risk are notified**, and

(b) ~~the supervisor must notify the yarding or skidding crew~~ **the tree is safely felled before other work is undertaken in the hazard area**.

(4) If a bucking cut cannot be completed and the partially bucked log must be bypassed or left unattended, then the following apply:

(a) if possible, a distinct cross must immediately be cut or marked on the top of each end of the log;

(b) the supervisor for the bucking activity must be notified at the end of the work day;

(c) the supervisor for the bucking activity must notify all workers at risk.

(5) Subsections (2) to (4) do not apply if the incomplete falling or bucking is part of a planned process in which safe work practices acceptable to the Board are implemented.

Explanatory Note

Section 26.25 (1)(a) represents a prohibition of conventional falling or bucking methods if a log or tree is in a condition that the worker is at risk if these methods are used. Normally, non-conventional methods such as blasting the tree or log are used to deal with the problem.

As in the previous section and for the same reasons, subsections (2) and (3) are more general as the reference to faller or bucker as the workplace party accountable for these obligations has been removed.

As well, the reference to mechanized falling in subsection (2) (a) has been removed as this is dealt with in the new section 26.29.3 on Mechanical Falling.

This section deals with situations where, due to a falling difficulty, a tree cannot be felled or a log completely bucked and must be bypassed or left unattended, and the condition of the tree or log could constitute a hazard to other workers in the area or to workers who could be reasonably foreseen to enter the area. These may include surveyors, engineering crews, grade, yarding crews etc.

Subsection (5) is an exception to these procedures where the tree is not completely felled as part of a planned process and safe work procedures are implemented.

Falling dangerous trees

26.26 (1) Where practicable, dangerous trees must be felled

(a) progressively with the falling of other timber but before falling adjacent live trees, and
(b) into open areas.

(2) When falling a dangerous tree,

(a) dangerous bark must be removed, where practicable,
(b) stump height must, in the judgment of the faller, allow maximum visibility and freedom of action,
(c) the tree must be felled in the direction of lean whenever possible, and the undercut must be as deep as necessary to minimize the use of wedges and resulting vibration,
(d) pushing with a green tree must only be undertaken to overcome a falling difficulty, and
(e) wedging over must be used only if there is no alternative, and after a careful assessment of the ability of the dangerous tree to withstand wedging.

(3) If conventional methods cannot be safely employed ~~to remove~~**to fall** a dangerous tree, blasting or other acceptable methods must be used.

(4) Falling, bucking or limbing activities must not be undertaken in an area made hazardous by a ~~leaning~~ dangerous tree, or a dangerous tree which has been brushed by a felled tree, until the dangerous tree has been felled.

Explanatory Note

No significant changes to this section.

Location of fallers **26.27** (1) ~~Fallers and buckers must not work in a location where they or other workers will be endangered.~~ **Fallers and buckers must not work in a location where they or other workers could be endangered by that work.**

(2) ~~A faller must not fall a tree in a normally inaccessible area if the faller's safety depends on a lifeline or similar device and the faller does not have the ability to move to a safe position.~~ **If an elevation or steep slope poses a risk to a faller, the faller must be provided with and use an appropriate fall protection system.**

(3) ~~Subsection (2) does not preclude the use of a lifeline to prevent slipping or falling.~~ **Any fall protection provided under subsection (2) must not impede the ability of the faller to move to a predetermined safe position as required in section 26.24 (7).**

(4) A faller must not work in a location where the faller is supported solely by a lifeline and harness.

Explanatory Note

Subsections (2) and (3) are amended to set out more clearly the requirements that apply when there is a risk of falling from an elevation or down a slope.

Summoning assistance	**26.28**	(1) Qualified assistance must be readily available to fallers in case of difficulty, emergency or injury.
		(2) Fallers and buckers must have an effective means to summon assistance.

Explanatory Note

No changes.

Entry to falling area **26.29**

(1) ~~Only workers with associated duties may enter an active falling area.~~ **Only a worker with duties associated with the falling activity may enter an active falling area.**

(2) Before entering the active falling area, workers must notify the faller or bucker and wait until advised by the faller or bucker that it is safe to enter.

(3) ~~A worker, other than the faller, may be at the base of a tree being felled if the worker is~~ **A worker, in addition to the faller, may be at the base of a tree being felled if the worker is**

(a) ~~a supervisor or manager controlling the operation,~~ **supervising or directing the falling activity,**

(b) training as a faller, or

(c) required to assist the faller to overcome a specific falling difficulty.

Explanatory Note

There are no changes to the intent of this section.

MECHANICAL FALLING

Explanatory Note

This new sub-part is created to distinguish the requirements specific to mechanical falling from the requirements specific to manual falling.

Application	**26.29.1**	**Sections 26.29.2 to 26.29.5 apply only to mechanical falling activities.**
Limits on use of mechanical harvester	**26.29.2**	**A mechanical harvester must not be used to fell a tree if** **(a) the tree is in a condition that, if felled in that condition, it would pose a reasonably foreseeable risk to the harvester operator, or** **(b) the mechanical harvester is not capable of falling the tree safely.**
Incomplete falling cuts	**26.29.3**	**(1) If a partially cut tree cannot be completely felled by a mechanical harvester and must be bypassed or left unattended, the following apply:** **(a) the tree must be clearly marked;** **(b) work, other than that necessary to complete the falling of the tree, must stop in the hazard area until the tree is felled;** **(c) any worker who could enter the hazard area must be alerted to the hazard;** **(d) the person responsible for the direction and control of the mechanical harvesting activity must be notified.** **(2) The person referred to in subsection (1) (d) must ensure that** **(a) all workers at risk are notified, and** **(b) the tree is safely felled before other work is undertaken in the hazard area.** **(3) Subsection (1) does not apply if incomplete falling is part of a planned process in which safe work practices acceptable to the Board are implemented.**
Hazard area	**26.29.4**	**(1) Only a worker with duties associated with a mechanical falling activity may enter the active falling area.** **(2) Before a tree is felled by a mechanical harvester, all workers and equipment, other than the equipment operator and the harvesting equipment, must be clear of the area within a 2 tree-length radius of the tree.**
No additional hazards	**26.29.5**	**Mechanical falling activities must be conducted in a manner that does not create any additional hazard for workers conducting subsequent work activities.**

Explanatory Note

Section 26.29 (2)(a) is a prohibition of mechanical falling if a tree is in a condition that the operator is at risk if the tree is felled in the normal manner. Normally, non-conventional methods such as blasting the tree are used to deal with the problem.

Section 26.29.2(b) is intended to address the capabilities of the mechanical harvester to safely fall the tree.

Section 26.29.3 deals with situations where, due to a mechanical falling difficulty, a tree cannot be felled and is bypassed or left unattended, and the condition of the tree could constitute a hazard to other workers in the area or to workers who could be reasonably foreseen to enter the area. These may include surveyors, engineering crews, grade, yarding crews etc.

Subsection 26.29.3 (3) is an exception to these procedures where the tree is not completely felled as part

of a planned process and safe work procedures are implemented.

Section 26.29.5 has been added to address situations where conditions created by mechanical falling operations do not pose a risk to the mechanical harvester operator but will pose a future risk to other workers such as manual fallers or ground skidding crews.

TRAFFIC CONTROL FOR FALLING OPERATIONS

Traffic control **26.30** If**, in any type of falling activity,** a tree being felled may create a hazard to a user of a ~~traveled~~ road, ~~adequate~~ **effective** traffic control must be used to stop or control approaching traffic.

Explanatory Note

This section applies to both mechanical falling and manual falling operations.

This section differs from Part 18 (Traffic Control) in that Part 18 primarily protects workers in a work zone from the hazards of traffic. This section addresses protection of vehicles usually carrying workers of other employers from the hazards of the work process if the vehicles travel through an area made hazardous due to falling activity.

YARDING ~~AND SKIDDING~~

Equipment construction	**26.31**	Repealed. [B.C. Reg. 312/2003.] <See sections 4.2, 4.3, and 4.8 of the OHS Regulation.>
~~**Operator protection**~~	~~**26.32**~~	~~Boom stops must be installed on equipment if pushing or pulling the boom too far back may cause the backstop to crush the operator's cab.~~

Explanatory Note

This sub-part has been re-named and the requirements specific to high lead yarding have been separated from those specific to skidding. The latter requirements are addressed in another sub-part beginning at section 26.53.

Section 26.32 has been moved to section 26.13.1 to be included in the “Equipment operation” sub-part. It has been re-worded there for clarity but with no change in meaning.

Mobile yarders **26.33** ~~(1) A mobile yarder must not be used unless a legible and easily visible sign provided by the manufacturer or a professional engineer is permanently attached, showing,~~

~~(a) the name of the manufacturer, and date of manufacture,~~

~~(b) the model and serial number,~~

~~(c) if the yarder is designed for skyline, slackline, or modified slackline systems, the maximum and minimum size of skyline, mainline, and haulback that can be used,~~

~~(d) the maximum diameter of the mainline,~~

~~(e) the minimum size, number and placement of guylines, if required,~~

~~(f) the placement and number of outriggers, if required,~~

~~(g) the permissible yarding angles, and~~

~~(h) auxiliary equipment that may be safely attached.~~

~~(2) A mobile yarder must be rigged and used according to the information included on the sign required by subsection (1).~~

~~(3) A mobile yarder must not be moved with the spar or tower in the vertical operating position unless the stability of the equipment can be maintained.~~

~~(4) Multiple throttle controls on a mobile yarder must be arranged to preclude the simultaneous operation of 2 or more controls.~~

~~(5) Each mobile yarder and attached equipment must be inspected frequently.~~

~~(6) Manufacturer's manuals must be provided and inspection and maintenance must be done as required by Part 14 (Cranes and Hoists).~~

~~[Amended by B.C. Reg. 312/2003.]~~

~~<See also section 4.3 of the OHS Regulation.>~~

Explanatory Note

Section 26.32 has been moved to new section 26.13.3 in the “Equipment operation” sub-part, with some changes in wording that are explained there.

Application **26.33.1** **Sections 26.34 to 26.55 apply only to forestry operations.**

Explanatory Note

The application of the yarding and skidding subpart has been limited to forestry operations to avoid any conflict with Part 15 (Rigging).

Signalling **26.34** (1) Only a designated worker may signal for the movement of cable yarding equipment, but any worker may signal to stop cable yarding equipment, and that signal must be obeyed promptly.

(2) The worker designated to signal the yarder operator must

(a) not be otherwise occupied while the equipment is in motion, and

(b) not signal for the movement of the equipment until assured that no workers are endangered within the area for which the designated worker is responsible.

(3) The signals for rigging movement must be clearly discernible to the equipment operator, and to all workers who could be endangered by the movement of the equipment.

(4) A worker who directs or operates equipment, or who could be endangered by the movement of equipment, must be familiar with the meaning of the signals.

(5) The equipment operator must stop the equipment if a signal is not clearly understood.

(6) ~~If voice signals are used, the equipment must not be moved until the equipment operator has repeated the voice signal by means understandable to all workers who might be endangered.~~ **If voice signals are being used that cannot be heard by workers who could be endangered by the movement of equipment, the equipment operator must not move the equipment until the operator has given a signal by means understandable to all those workers.**

(6.1) If voice signals are being used to direct the operation of a grapple yarder, the signals specified in Table 26-8 must be used.

(7) If non-verbal signals, such as whistles and hand signals are used to direct the operation of equipment, the signals specified in Tables 26-1 to 26-7 must be used.

(8) When audible signals are being used concurrently to direct the operation of more than one piece of equipment, the signal tones must be differentiated to clearly identify intended movement of each machine.

(9) Signalling devices must be tested at the start of each shift in a way that ensures that equipment will not be moved in response to the test.

(10) Defective signalling devices that might cause a hazard to workers must not be used, and repairs, alterations, or adjustments to signalling devices must be performed by a qualified person.

(11) A radio signalling device used to direct the movement of logging equipment must be designed, maintained and operated in accordance with a standard acceptable to the Board.

(12) Any signalling system using radio frequency transmission must operate on a frequency and at a transmission power assigned and coordinated ~~by the Board.~~ **by a person acceptable to the Board.**

Explanatory Note

This section has few changes from the original. Subsection (6) was amended for clarity and subsection

was amended(12) as the Board currently performs this function but, in future, may decide to have this done by someone outside the Board.

Radio controlled machines	**26.35**	~~Equipment, including a yarder or a wheeled or tracked log skidder, which is controlled by radio remote control devices must be equipped with "fail safe" or "stop" devices that will become effective if the radio control device fails.~~

Explanatory Note

This section has been moved to section 26.12.2 in the new “Equipment operation” sub-part. There is a minor change in wording that is explained there.

Climbing equipment **26.36**

~~(1) A worker climbing a tree or a wooden spar must use a safety belt, climbing rope or strap, and climbing spurs meeting the requirements of Part 11 (Fall Protection).~~

~~(2) If a worker climbing a tree must disconnect the climbing rope or strap in order to move by an obstacle, a second climbing rope or strap must be used to ensure continuous protection while passing the obstacle.~~

~~(3) When climbing equipment is in use, a duplicate set of equipment must be available for immediate use at the site.~~

~~(4) If there is danger of the climbing rope or strap being severed, it must be made of wire rope or a rope with wire core construction.~~

~~(5) When a chain saw is being used, the climbing rope or strap must be made of material that cannot be severed by the saw, or a second climbing rope or strap must be used.~~

~~(6) Climbing equipment must be maintained in good order, and inspected by the worker before each use.~~

~~(7) When a worker is on a steel spar the worker must use a full body harness which has a lanyard anchored to the spar as required by Part 11 (Fall Protection), except when riding on a passline as specified in section 26.37 to thread lines, oil blocks, or to inspect rigging.~~

Explanatory Note

This section has been moved to 26.7.1 so that it is clear it applies to all situations where workers climb trees and not just related to yarding activities.

Hoisting workers **26.37** ~~(1) A passline used for hoisting a worker as permitted by section 26.36 (7) must be~~

~~(a) fitted with links or rings, as guards to prevent the worker from being drawn into the blocks,~~
~~(b) inspected before use and replaced if not in good condition,~~
~~(c) free from knots except for splices at the terminals,~~
~~(d) of sufficient length to maintain at least 3 wraps on the hoisting drum, and~~
~~(e) secured against accidental disengagement at the points of connection.~~

~~(2) Repealed. [B.C. Reg. 420/2004.]~~

~~(3) While a worker is being hoisted, another worker must be designated to ensure that the hoisting line is spooled onto the hoisting line drum according to recognized industry standards, and a hand or foot must not be used to guide the rope onto the drum.~~

~~(4) When a worker is suspended from a hoisting line, another worker must be designated to give signals to the hoist operator and must be~~

~~(a) otherwise unoccupied,~~
~~(b) clearly visible to the worker suspended from the hoisting line and the equipment operator, and~~
~~(c) clear of hazards from falling, flying or thrown objects.~~

Explanatory Note

This section has been deleted as hoisting workers on passlines is no longer practiced in this industry. Part 11 addresses working at heights.

Riding on rigging **26.38** (1) ~~Except as permitted in subsection (2), a worker must not be transported on any cable system unless it is necessary and authorized for inspection or maintenance.~~ **Subject to subsection (2), a worker must not be transported on any cable system unless**

(a) the system is authorized for use in a rescue, an emergency, an inspection or maintenance and it is being used for that purpose,
(b) all other means for transportation are impracticable, and
(c) the system is capable of withstanding the loads and stresses to be placed on it.

(2) ~~Subsection (1) does not apply if the system is designed for the purpose of the transport of workers and meets a standard acceptable to the Board.~~ **Subsection (1) does not apply if the system is designed**

(a) by a professional engineer, and
(b) for the purpose of the transport of workers.

Explanatory Note

This section was expanded to recognize that, under additional circumstances, it may be necessary to transport persons on a logging cable system. The changes to subsection (1) above will clarify when this can be done.

Following the public hearing the term “standard acceptable to the Board” was deleted in favour of a requirement that the system be designed by a professional engineer. This is not a significant change, as the Board did not have a standard for this activity and would have required the system to be designed by an engineer. Thus, this wording change merely states explicitly what was implicit previously.

~~**Location of workers**~~**Safe location**	**26.39**	(1) ~~A worker must not remain within~~ **A worker must not be positioned within** the bight of any running line under tension, nor in a position where the worker could be struck by a line were it to break or come loose, or be tightened **if slack**.
		(2) A worker must be positioned in the clear to avoid being exposed to moving logs, saplings, root wads, chunks, rigging or other material.
		(3) A worker must ~~keep~~ **be positioned** clear of rigging which is stopped by an obstruction until the rigging has been slackened to reduce the hazard.
		(4) Despite subsection (1), a worker may enter the bight of a slack line to deal with an obstruction or set chokers.
		(5) If a worker enters the bight of a running line pursuant to subsection (4), the rigging must not be tightened until a clear go-ahead signal has been given by the worker.

Explanatory Note

The wording in this section was made more general so the obligation could apply to anyone who is responsible, including the worker, supervisor, etc.

Based on feedback from the public hearing, subsections (4) and (5) have been added. Sub-section 26.39(1) prohibits a worker from entering the bight of a slack line. Stakeholders say work in this area is commonplace and not inherently hazardous as long as all lines remain slack. Thus, following the public hearing, sections (4) and (5) were added to provide for the conduct of this activity in a safe manner.

Removal of potential hazards to rigging	**26.39.1**	**(1) A tree must be felled if the tree could** **(a) interfere with rig-up or with movement of lines and yarding equipment, or** **(b) be pushed or pulled into an area where a worker is working.** **(2) Saplings over 6 m (20 ft.) tall that** **(a) are located in an area to be yarded, and** **(b) constitute a reasonably foreseeable risk to workers.** **must be felled before yarding activity begins.** **(3) If it is not practicable to comply with subsection (2), safe work practices acceptable to the Board that eliminate or minimize the risk to workers in the forestry operation may be used if these safe work practices are directed by a supervisor.**

Explanatory Note

After the public hearing, this section was moved from 26.11.1. This section deals with trees that are not inherently "dangerous" but may become a hazard due to other activities such as yarding operations that are occurring in the same area. It replaces the current subsections 26.11(2), (3) and (4).

In response to feedback received during the public hearing, subsection (2) has been amended to clarify that saplings do not need to be removed if there is no foreseeable risk to workers. Stakeholders said it was too broad to require all saplings to be removed without regard to risk.

Anchors **26.40** (1) A standing tree may be used for anchoring lines or fastening blocks only if

(a) a suitable stump is not available, and

(b) the tree is effectively tied back to another anchor, except that a secondary anchor tree need not be tied back.

(1.1) A standing tree must not be used to anchor guylines if a worker would be endangered were the tree to be pulled over.

(2) A stump or tree must not be used as an anchor for a line or for fastening a block until it has been determined that it is suitable for use as an anchor, and it must be inspected daily to determine that it remains suitable for continued use.

(2.1) An anchor to which a haulback block is attached must have a notch of sufficient depth to retain the strap or must provide equivalent security by other effective means.

~~(3) A guyline must be secured to its anchor stump by~~

~~(a) a notch of sufficient depth to retain the wrapping lines, or by other means providing equivalent security, and~~
~~(b) sleeve shackles, knob and bell, screwy hooks or line clamps compatible with the guyline size, and~~
~~(c) a minimum of 2 1/2 wraps about the anchor if spikes are used.~~

~~(4) If spikes are used to secure a guyline to an anchor stump, there must be at least~~

~~(a) 8 spikes in the first wrap, 3 spikes in the second wrap and 8 spikes in the last wrap if the guyline is attached to the yarder, or~~
~~(b) 3 spikes in the last wrap if the guyline is attached to a back spar.~~

(5) If a log, pipe or other apparatus buried in the ground is used to anchor a guyline or skyline, the method and equipment used must be acceptable to the Board and

(a) the guyline or skyline must not be directly attached to the anchor,

(b) a suitable strap or line of equal size and strength to the guyline or skyline with eyes in each end must be used, with one wrap around the anchor, and both eyes attached to the guyline or skyline with a shackle, and

(c) the eye connection of the anchor strap must be visible for inspection.

(6) ~~Artificial earth anchors must be installed and used in accordance with their design specifications and manufacturer's recommendations or a standard acceptable to the Board.~~ **Any anchor system not otherwise referred to in this section must be used in accordance with**

(a) its design specifications and manufacturer's recommendations, or

(b) if those specifications or recommendations are not known, a method acceptable to the Board.

~~(7) Rock bolt, wire rope and steel pin anchors must be grouted and installed, tested and maintained in accordance with the anchor manufacturer's recommendations or a standard acceptable to the Board.~~

(8) If an anchor system has 2 or more legs, bridle blocks of adequate strength must be used to distribute the load equally.

[Amended by B.C. Reg. 253/2001.]

Explanatory Note

This section was amended by adding subsection (2.1) to ensure that a stump which retains the haulback anchor cable or strap is sufficiently notched or other precautions are taken to ensure the strap does not slip off the stump.

Subsections (3) and (4) were moved to section 26.41 as they deal mainly with “guylines”.

Subsections (6) and (7) were combined by using more general language. There is no change in the actual requirements.

Guylines **26.41** (1) Guylines for a mobile yarder must be positioned

(a) as specified by the manufacturer, or

(b) ~~as shown in Figure 26-1 according to the number of guylines used.~~ **in a manner acceptable to the Board.**

(2) Guylines must be rigged to provide a 45 degree or larger angle between the guyline and a line drawn plumb through the guyline fairlead.

(3) If it is not practicable to comply with subsection (1) or (2), or if suitable anchors are not available, additional steps must be taken to ensure the stability of the yarder.

(4) Guylines must be attached to the supported structure by guyline shackles, or other fastenings providing equivalent security.

(5) Safety devices with breaking strength at least equal to that of the guylines must be installed at the top of mobile spars to prevent guylines or their assemblies from falling.

(6) Guylines over a travelled road must be rigged to clear all traffic, or if this is not practicable,

(a) the guylines must be conspicuously marked, and

(b) signs warning of limited clearance must be posted on the road.

(7) A guyline must be secured to its anchor stump in the following manner:

(a) a notch of sufficient depth, or another means of equivalent security, must be used to retain the wrapping lines;

(b) sleeve shackles, knob and bell, screwy hooks or line clamps compatible with the guyline size must be used.

(8) If spikes are used to secure a guyline to an anchor stump, there must be at least

(a) 8 spikes in the first wrap, 3 spikes in the second wrap and 8 spikes in the last wrap if the guyline is attached to the yarder, or

(b) 3 spikes in the last wrap if the guyline is attached to a back spar.

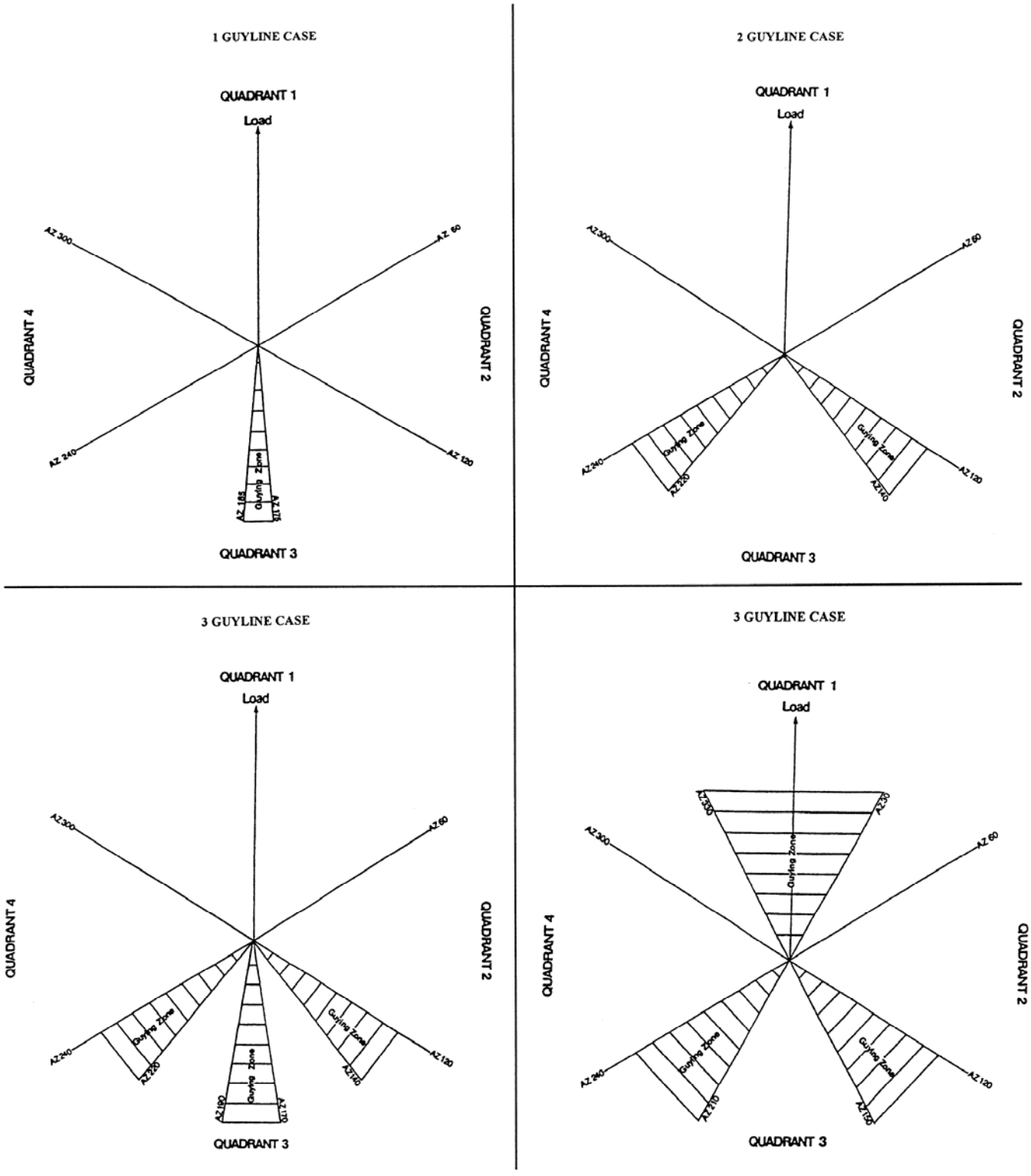
(9) If spikes are used to secure a guyline to an anchor stump, there must be a minimum of 2 ½ wraps of the guyline around the anchor stump.

Explanatory Note

Subsections 26.40 (3) and (4) were moved to this section as new subsections (7), (8) and (9), as they deal mainly with guylines which is the focus of this section. There is a slight change in the wording for clarity but no change in meaning.

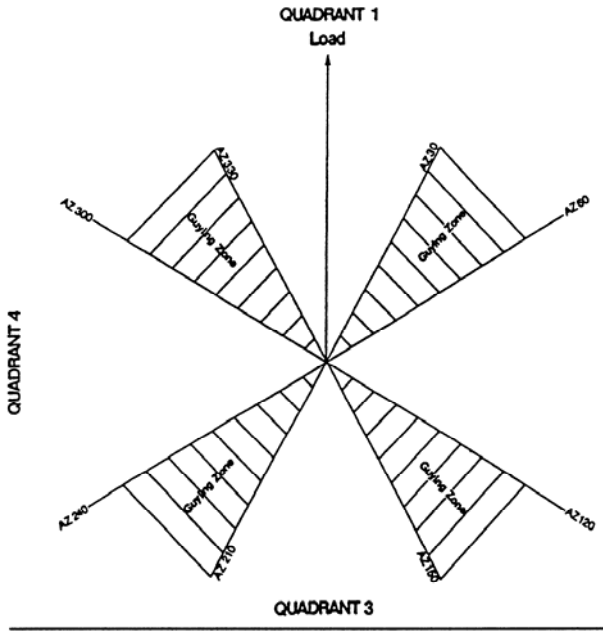
Figure 26.1 has been deleted as this type of detail more appropriately belongs in a Board guideline or publication. Consequently, section 26.41(1) (b) was amended to refer to a standard acceptable to the Board.

~~Figure 26-1: Positioning guylines for mobile yarders~~

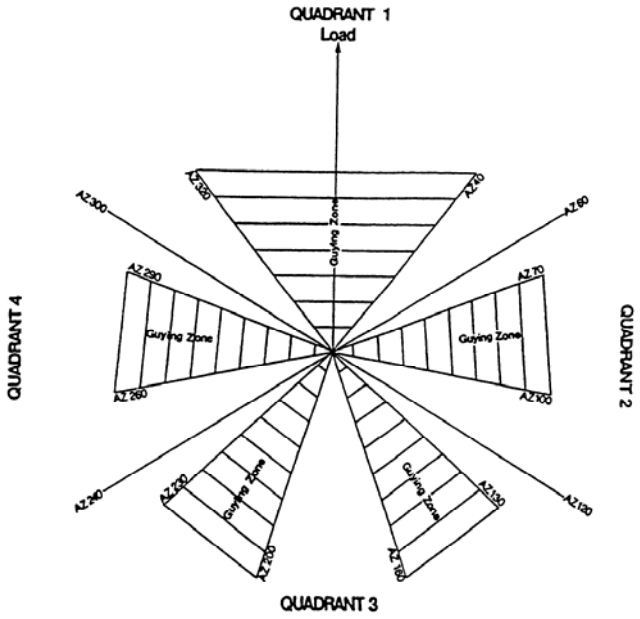


~~Figure 26-1: Positioning guylines for mobile yarders (cont'd.)~~

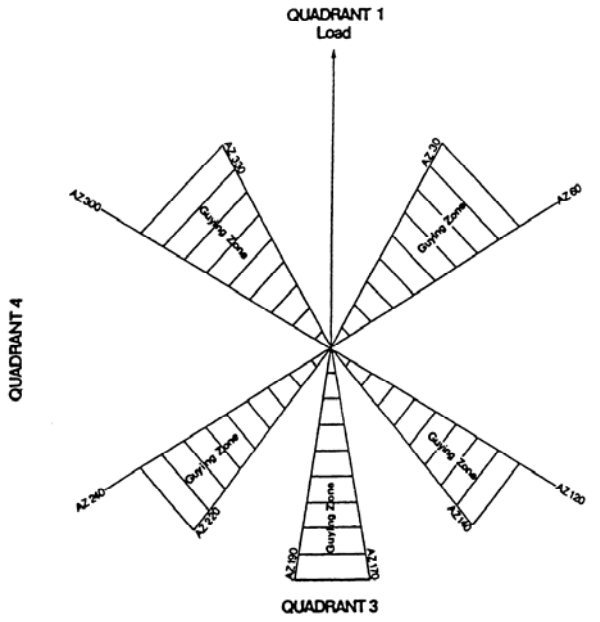
4 GUYLINE CASE



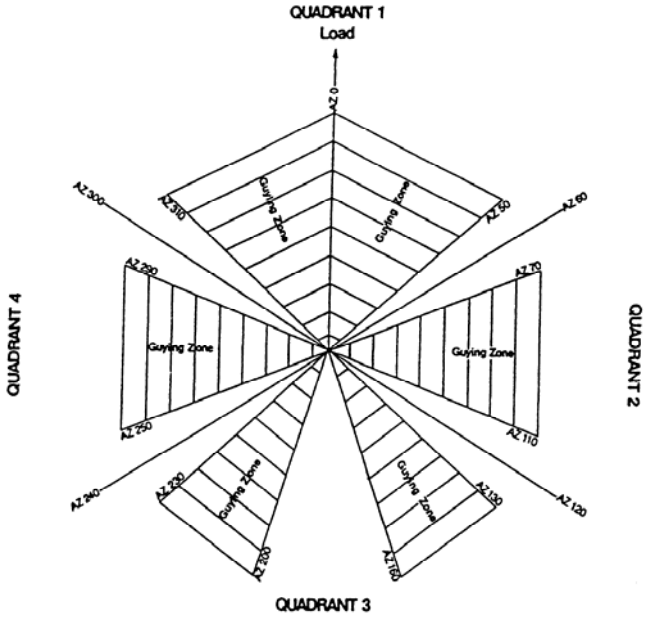
5 GUYLINE CASE



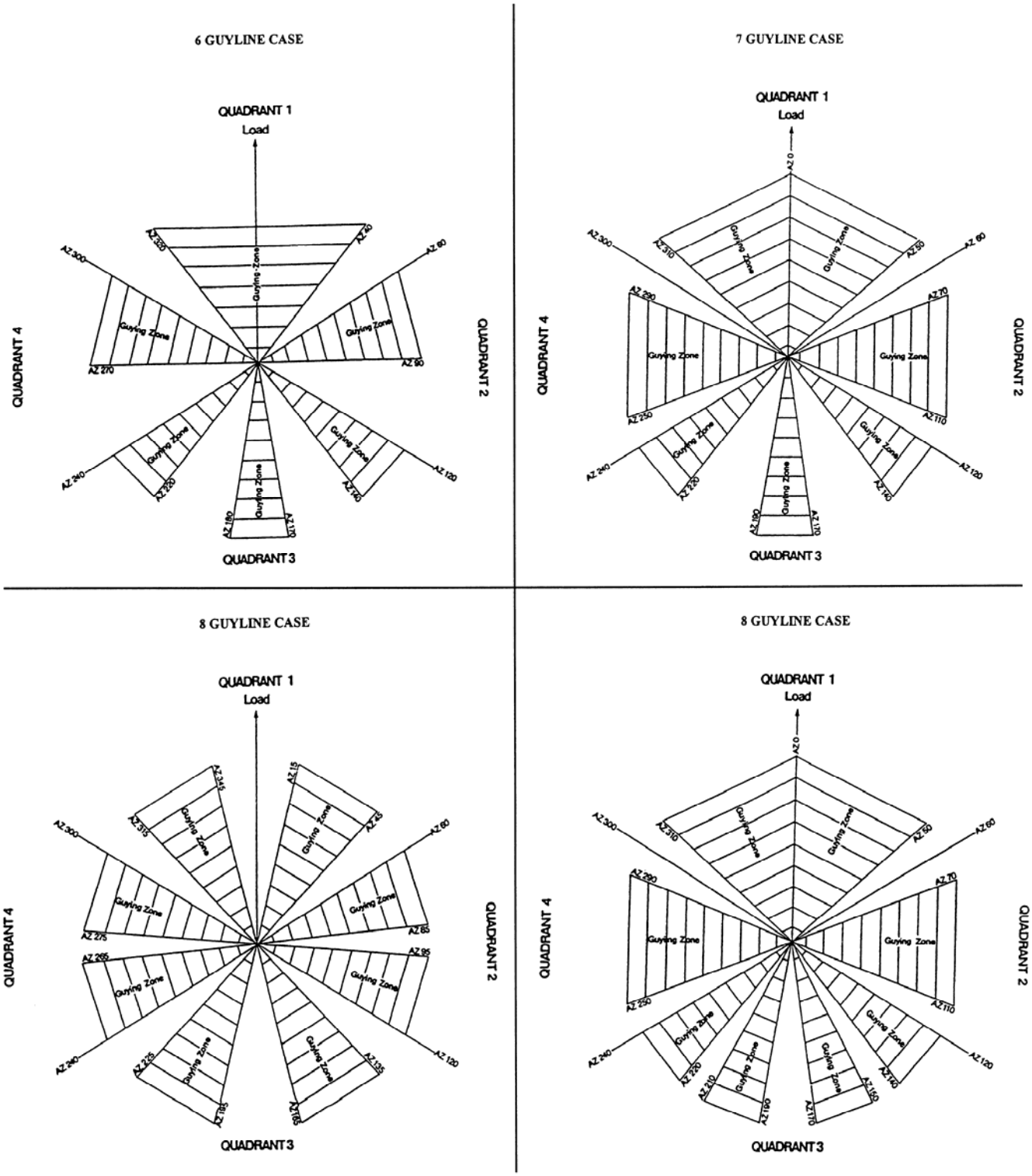
5 GUYLINE CASE



6 GUYLINE CASE



~~Figure 26-1: Positioning guylines for mobile yarders (cont'd.)~~



Explanatory Note

Fig 26.1 was removed.

Rigging **26.42** (1) Rigging must be of a type and size for which the equipment is designed.

(2) Lines, blocks, and yarding and loading equipment must be rigged in accordance with accepted industry standards.

(3) Shackle pins on stationary lines must be secured with molly hogans or other acceptable means to prevent accidental dislodgment.

(4) Molly hogans must not be used to connect skylines, loading rigging, or any stationary lines.

(5) Screw pin shackles used on running lines must be tightened securely and routinely inspected.

(6) Rigging must be inspected at regular and frequent intervals by a qualified worker.

Explanatory Note

There are no changes to this section.

~~**Hanging**~~ **Supporting blocks**	**26.43**	~~Straps for supporting blocks must be made from new wire rope or manufactured from synthetic fibre material and rigged to withstand the applied loads.~~ **Straps for supporting blocks must** **(a) be made from wire rope or synthetic fibre material, and** **(b) be of sufficient size and condition to withstand the maximum anticipated loads.**

Explanatory Note

Subsection (a) was amended to remove the reference to “new” as it is overly prescriptive.

Subsection (b) was clarified so that the straps must be capable of withstanding the loads.

Winches **26.44** (1) When properly anchored to a winch, the minimum number of wraps of cable left on a winch drum must be

(a) for skylines, $1^{1}/_{2}$ layers, and

(b) for other types of logging equipment, 3 complete wraps.

(2) Subsection (1) does not apply to a skidding winch mounted on ground-based skidding equipment.

Explanatory Note

There are no changes to this section.

Prohibition of knots **26.45** A knot must not be used in any winch line or other rigging, except

(a) to effect temporary repair in the event of line breakage, or

(b) for tag lines on grapple log loaders or for hooks on strawline eyes.

Explanatory Note

There are no changes to this section.

Skyline anchors

26.46 (1) A skyline must be anchored to

(a) a stump or to a suitable manufactured anchor,

(b) the base of a standing tree if the tree is tied back to a secondary anchor, or

(c) a suitable piece of mobile equipment.

(2) A skyline must be secured to an anchor by

(a) a choker using a large sleeve-type knockout pin shackle or an approved safety pin-type shackle over the skyline with the pin through the eye,

(b) a strap acceptable to the Board, with both eyes hung in a shackle and the knockout pin or safety pin through the eye of the skyline, or

(c) ~~a cable clip system acceptable to the Board~~ **a wire rope clip system meeting the requirements of Part 15.**

(3) If anchor stumps in standing timber are used for slackline or other skyline operations, the skyline must be prevented from striking trees in the area, or the trees must be felled.

Explanatory Note

The reference to “cable clip” was replaced with “wire rope clip” to be consistent with Part 15. The standard acceptable to the Board is set out in Part 15 (Rigging).

Skyline extensions

26.47 If a skyline extension is used

(a) the breaking strength of the extension must be greater than or equal to that of the skyline,

(b) the extension must not alter the safe capacity of the tower**,** and

(c) if the carriage runs over it, the extension must be attached by a regular long splice or by a flush pin straight side shackle connecting the 2 eyes.

Explanatory Note

No changes

Skyline spars **26.48** (1) Each skyline spar must be of adequate strength.

(2) An intermediate spar must be used in a manner acceptable to the Board.

(3) ~~A backspar that is hazardous to top or is among standing trees need not be topped if workers will not enter the area made dangerous by the use of the tree when the skyline is loaded.~~ **Backspars must be topped unless workers are prohibited from entering the hazard area created when the skyline is loaded.**

Explanatory Note

Subsection (3) was re-worded to make the obligation clear.

Skyline rigging

26.49 (1) When rigged in a backspar, a skyline must be anchored no more than 8° off-line from the rearward projection of the skyline.

(2) If a suitable anchor cannot be found to comply with subsection (1), another suitable anchor may be used provided that the backspar is stabilized by extra guylines.

(3) The rearward projection of the skyline must

(a) not be considered a guyline, and

(b) not make an angle greater than 50° measured from the horizontal as it leaves the backspar unless approved by a professional engineer.

(4) The method used to support a skyline at a backspar or intermediate spar must provide adequate support and protection for the line.

(5) A skyline must not be fastened directly to a backspar.

Explanatory Note

No changes.

Backspar guylines **26.50** (1) A tree used as a backspar must be guyed with a sufficient number of guylines to ensure that the tree is adequately supported.

(2) If spikes are used to anchor a backspar guyline

(a) the guyline must have at least 2½ wraps around the stump, and

(b) three spikes must be placed in sound wood on the last wrap.

~~(3) If cable clips are used to anchor a backspar guyline, they must be secured in accordance with acceptable rigging practice.~~

Explanatory Note

The reference to “cable clips” has been. The “acceptable rigging practice” is stipulated in Part 15 (Rigging).

Lift trees **26.51** ~~A lift tree need not be topped or guyed provided it is of adequate strength and the lines run through tail hold block(s) located so as to minimize stress on the lift tree, and tail hold(s) are rigged and located so that if the lift tree were to be pulled over workers would not be endangered.~~ **A lift tree must be topped or guyed unless**

(a) the tree is of adequate strength to withstand the loads that are placed on it during yarding activities,

(b) the lines run through tail-hold blocks located so as to minimize stress on the tree, and

(c) tail-holds are rigged and located to prevent a worker from being endangered if the tree is pulled over.

Explanatory Note

This section was amended so it now clearly states that lift trees must be topped or guyed unless certain conditions are met. These are the same exceptions that are contained in the current section. Thus, it will not always be necessary to top a lift tree.

Corridor logging	**26.52**	~~When corridor logging is carried out, the corridor must be cleared to a standard acceptable to the Board.~~

Explanatory Note

This section has been removed. This is one of many innovative practices that can be covered by Section 26.2.

SKIDDING

Explanatory Note

This sub-part has been created to distinguish the requirements specific to skidding from those specific to high lead yarding. The latter are addressed in another sub-part beginning at section 26.31.

Ground skidding operations

26.53

~~(1) Ground skidding, transport or processing equipment must not enter an active falling area.~~

~~(2) The operator of ground based skidding equipment must~~

~~(a) not winch at an angle that could cause an obstruction to upset the machine,~~
~~(b) if practicable, winch the turn up tight to the equipment before travelling to avoid obstruction hang-up and rollover,~~
~~(c) before climbing or descending grades, select a suitable gear in order to maintain control of the machine, and~~
~~(d) drop the turn to free an unchoked log if an unchoked log is picked up with a turn,~~

Ground based skidding operations must be conducted using safe work practices acceptable to the Board, including, without limitation, the following:

(a) not winching at an angle that could cause an obstruction to upset the equipment;
(b) to avoid obstruction hang-up and rollover, if practicable, winching the turn up tight to the equipment before the equipment is moved;
(c) selecting a suitable gear to maintain control of the equipment before climbing or descending grades;
(d) dropping the turn to free the log if an unchoked log is picked up with a turn;
(e) avoiding abrupt turns of equipment on side hills.

Explanatory Note

After the public hearing, subsection (1) was deleted as it was pointed out that this obligation is covered by section 26.29(1).

Previously, subsection (2) had been amended to use more general language so the operator is not solely responsible for the obligations in that subsection. The use of general or “passive” language is explained more fully in the General Note that follows section 26.5.

Subsections (2)(a), (b), (c) and (d) were re-worded but with no change in the requirements.

Subsection (2)(e) was added previously as turning abruptly on a side hill is a particular unsafe work procedure that results in a number of skidder rollovers. It is specifically mentioned in Washington State logging regulations.

Equipment stability	**26.54**	~~Mobile equipment must not be operated where its stability cannot be assured.~~ ~~[Amended by B.C. Reg. 312/2003.]~~ ~~<See also section 26.16 of the OHS Regulation.>~~

Explanatory Note

This section was moved to section 26.16 (1.1), with some changes as noted there.

Mainline release	**26.55**	A skidding winch on a ground based skidding machine must have a quick-release system to permit the winch line to run out freely and automatically disengage from its drum.

Explanatory Note

No changes.

~~LANDINGS AND LOG DUMPS~~FORESTRY WORK AREAS

Explanatory Note

This sub-part has been renamed as it applies to other work areas as well – not just Landings and Log dumps. It can include landings, processing areas, roadside log storage, dry land sort and log dumps.

~~**Log landings**~~ **Work area arrangement** **26.56** (1) ~~Log landing and other work areas must be~~

(a) ~~located, constructed, arranged, maintained, and operated so that logs can be landed safely and workers may work in the clear of moving logs and equipment,~~

(b) ~~located on stable and relatively level ground, and~~

(c) ~~adequately illuminated in accordance with the requirements of this Regulation in areas where workers are required to work at night or in other conditions of limited illumination.~~

~~(2) Log piles must be maintained in a stable condition.~~

(1) In this section, "work area" includes any area in which any forestry work is done but does not include the travelled portion of a road unless that portion of the road is being used as a landing.

(2) Work in a work area in a forestry operation must be planned and the work area must be located, constructed, maintained and operated to ensure the following:

(a) logs can be moved safely in the area;
(b) log piles and equipment used to handle the logs do not become unstable or otherwise create a hazard;
(c) workers are able to work in locations clear of moving logs and equipment;
(d) workers are not exposed to incoming or runaway logs or other debris;
(e) the area is kept free from buildup of bark and other debris to the extent that it would pose a risk to workers;
(f) an effective method of dust control is used and maintained.

(3) Log piles must, to the extent practicable, be located on stable and relatively level ground.

(4) Log piles must not be higher than the safe operating reach of equipment being used to handle the logs.

Explanatory Note

The language in this section was made more general so that the requirements here will apply to all work areas in a forestry operation, not just to landings and log dumps. The section was reorganized into subsections for clarity, some requirements currently found in other sections were moved to this section, and certain requirements were removed from this section.

Subsections (2)(a) and (c) are a reorganization of the existing subsection (1)(a). Subsection (2)(d) was moved here from section 26.57. Subsections (2)(e) and (f) were moved here from section 26.62.

The requirement in the current subsection (1)(c) regarding illumination was removed as this obligation is covered in greater detail by Part 4 "General Conditions" – sections 4.64 to 4.69 "Illumination".

Subsection (4) is moved here from section 26.15 with no change in wording.

In response to feedback received during the public hearing, subsection (1) has been added to more clearly define the application of this section. The travelled portion of a road is not included in this section unless it is used as a landing. The old subsections (1) and (2) have been combined with no change in meaning. Further, subsection (3) [which previously was subsection (1)(b)] has been added back into this section with some qualification, in response to feedback at the public hearing that said it is safest to locate log piles on relatively level ground and, hence, that should be required where practicable.

Equipment locations	**26.57**	~~Mobile yarders and loaders must be positioned to ensure that no worker on the landing will be exposed to incoming or runaway logs or other debris.~~

Explanatory Note

This requirement was moved to section 26.56 and made more general so it will apply to all work areas and equipment - not just to mobile yarders and loaders.

Limbing and bucking restrictions	**26.58**	(1) ~~Hazardous limbs must not be transported on a log transporter.~~ (2) ~~A worker must not stand on any part of a load of logs on a log transporter while limbing, bucking or carrying out any other activity~~.

Explanatory Note

After the public hearing, this section was moved to section 26.67, as it is more closely connected to loading of log transporters.

Suspended logs **26.59** ~~(1) A log must never be swung over a worker.~~

~~(2) A worker must not stand or pass under a suspended log.~~

(1) A log must not be passed over any worker or occupied vehicle or equipment.

(2) Despite subsection (1), a log may be passed over a vehicle or equipment that is being loaded, if the log

(a) does not pass over any portion of the vehicle or equipment that is occupied by a person, and

(b) does not constitute a hazard for the occupant of the vehicle or equipment.

(3) A worker must not stand or pass under a suspended log.

Explanatory Note

The section was amended earlier to change “swung over” to “pass over” to make it more general so that it will cover a wider range of situations. It is also applies to occupied vehicles and equipment, to make it clear this section is to protect workers wherever they are located.

In response to feedback received during the public hearing, the exception in subsection (2) has been added. Stakeholders said it is very cold in the north during the winter and log truck drivers need to stay in the cab for warmth while the truck is being loaded. The new provision says a log can pass over an occupied vehicle or equipment but only if the vehicle or equipment is being loaded, and not over the occupied portion of that vehicle and not if it will create a hazard for the vehicle occupant.

Log handling equipment	**26.60**	~~Log handling equipment must not be moved with loads lifted higher than is necessary to provide unobstructed vision for operators.~~

Explanatory Note

This section was moved to section 26.13.2 in the “Equipment operation” sub-part.

Vehicle movements **26.61** (1) ~~Vehicle movement signals must be used in accordance with section 26.34 where~~ **Effective means of communication must be used in a forestry operation to control vehicle movements in any location where**

(a) a loader operator is unable to see the loading operation, or
(b) trucks are moving at landings, load-out points, water dumps, dry land sorts~~,~~ **or** railway reloads**.**

(2) ~~Vehicle movement signals must be initiated as follows:~~

~~(a) if the vehicle operator decides to move the vehicle, then a movement warning signal must be given by the vehicle operator;~~

~~(b) if the loading or dumping machine operator decides the vehicle should be moved or stopped, the signal must be given by the operator of the loading or dumping m,achine.~~

If, for purposes of subsection (1), audible signals are used as the means of communication, the signals must meet the requirements of section 26.34 and Table 26.2.

Explanatory Note

In this section, “in a forestry operation” was added to make it clear the section refers to vehicle movements in forestry operations but not other industries. Also, “effective communication” replaced “vehicle movement signals” to allow for greater flexibility. Thus, other means for establishing communication can be used.

In subsection (2) a specific reference to Table 26-2 is included for educational purposes and clarity, as it is the only table that is applicable for audible signals.

In response to feedback received during the public hearing, the reference to “workers on foot” was deleted as this obligation is effectively covered by the new provisions in sections 26.14.1 and 26.14.2.

Maintenance **26.62** ~~Landings, load-out points, water dumps, dry land sorts, and railway reloads must~~

~~(a) be kept in good repair and free from hazardous buildup of bark and other debris, and~~
~~(b) have an effective method of dust control.~~

Explanatory Note

This section was moved to section 26.56 so that these requirements apply to all work areas in a forestry operation.

Unauthorized persons	**26.63**	Only persons ~~permitted by~~ **permitted by law or by** the workplace safe work procedures may be at landings, load-out points, water dumps, dry land sorts and railway reloads.

Explanatory Note

The phrase “by law” was added to the first line of this section to allow Board officers and Ministry of Forest employees on site – and any others permitted by law. Currently this section would appear to exclude those people even though they have a legal right to be there.

Stakeholder feedback received during the public hearing said the reference to “by law” was unclear and suggested substituting the phrase “with legal authority under an enactment”. However, that phrase would not allow police officers to enter workplaces and does not seem to resolve the alleged uncertainties, so no amendment has been made.

Dry land bunk and stake assemblies	**26.64**	Bunk and stake assemblies, installed at a dry land sort for bundling logs, must have fixed stakes or be used with safe work procedures which ensure that no worker goes into the ~~danger area~~ **hazard area** adjacent to or below self-tripping stakes unless the stakes are secured from releasing.

Explanatory Note

There are no changes to the meaning of this section. The phrase “danger area” was replaced with “hazard area” as there is a definition of “hazard area” in section 1.1 of Part1.

HAULING

Bullboards **26.65** (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.

(2) The barrier at the back of the cab of a self-loading logging truck may be less than the height specified in subsection (1) but must not be less than the cab height.

(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.

(4) 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.

(5) The barrier must be

(a) permanently marked with
(i) the name and address of its manufacturer,
(ii) the model number or serial number of the barrier, and
(iii) its rated capacity in terms of the cargo weight that may be transported in compliance with this section, or
(b) identified by carrying in the logging truck a copy of a letter that
(i) accurately describes the barrier,
(ii) certifies the model number or serial number of the barrier and its rated capacity in terms of the cargo weight it can carry, and
(iii) has been signed by the manufacturer or a professional engineer.

[Enacted by B.C. Reg. 253/2001; amended by B.C. Regs. 73/2005; 18/2006.]

Explanatory Note

This section was amended in 2006 to take account of changes made to the *Motor Vehicle Act*. There are no further amendments.

During the public hearing some stakeholders suggested this section be amended to add a requirement for the vertical integrity of bullboards in the event of a rollover. However, no corresponding amendment was made to this section, as Part 16 deals with rollover protective structures for mobile equipment. There are many vehicles, including logging trucks, that may roll over and, at present, are not required to have rollover protective structures. The matter of which vehicles should be required to have rollover protective structures and the design of those structures is better dealt with during a review of that topic under Part 16, rather than under other Parts of the Regulation.

Bunks and stakes

26.66 (1) Trucks, trailers and semitrailers used for transporting logs must be equipped with bunks and stakes of adequate design and construction to safely perform their intended function.

(2) Bunks must be able to rotate freely upon their pivots, if designed to do so.

(3) ~~Stakes, extensions and stake lines must be installed and maintained so that the angle between bunks and stakes does not exceed 90° when loaded.~~ **Stakes, extensions and stake lines must be installed and maintained to ensure that when the log transporter is loaded**

(a) the angle between the bunks and stakes at the base does not exceed 90°, and

(b) the angle between the bunks and the stakes and extensions above the base does not exceed the angle at which the stakes and extensions can safely withstand the maximum anticipated loads.

(4) Stakes must be constructed so that

(a) they can be released only from the opposite end of the bunk,

(b) keeper pins are secured against unintended release, and

(c) if they are over 1.2 m (4 ft) in height, springs or other mechanical means are fitted to facilitate their returning to a vertical position.

(4.1) A worker must not ~~access~~ go on bunks and trailer assemblies to raise or lower stakes and extensions unless it is impracticable to do otherwise.

(4.2) If a worker must go on a bunk or trailer assembly to collapse stakes or extensions, the worker must be provided a safe means of getting on and off the bunk or trailer assembly.

(4.3) Procedures must be developed and implemented for collapsing stakes or extensions during adverse weather conditions.

(5) Stake extensions must be secured against inadvertent detachment from the stakes.

~~(6) Stake cross-ties must not be used to secure stake extensions unless the unloading or dumping procedure protects workers from the hazard of flying stake extensions.~~

(7) Stake lines must

(a) not be made from swaged wire rope, and

(b) conform to the following specifications.

Bunk width		Stake line minimum diameter	
metres	feet	millimetres	~~Inches~~**inches**
up to 2.6	up to 8 1/2	22	7/8
2.6 to 3.7	8 1/2 to 12	29	1 1/8
over 3.7	over 12	32	1 1/4

(8) Stake and bunk assemblies must be inspected daily, and must not be used if they show signs of excessive wear.

(8.1) A record of all inspections conducted under subsection (8) must be maintained.

(9) ~~If air operated stake releases are used~~

~~(a) the air supply must be taken from the "wet" air reservoir or from the accessory air line to a control valve that is normally closed,~~
~~(b) the control valve must be located in the cab and be accessible only from the operator's position,~~
~~(c) the control valve must be fitted with a spring-loaded cover or be otherwise guarded against inadvertent operation, and~~
~~(d) a separate air line must extend from the control valve to the tractor and trailer stake release chambers, and it must be clearly identified, or installed so that it cannot be mistaken for the air line of the trailer's braking system.~~

~~[Amended by B.C. Reg. 312/2003.]~~

Explanatory Note

Subsection (3) deals with stake angles. It is important that a 90° angle is maintained at the base of the stakes, but this is not realistic above the base due to the flex in stakes once they are loaded. Above the base, it is important that the stakes and stake extensions are used within their safe limits. Subsections (3)(a) and (b) address this issue.

Subsections (4.1), (4.2) and (4.3) address the concern that standing on bunks and trailers to lower stakes is a risky activity and should be avoided if possible. However, as it will be necessary to do this in some situations, the requirements set out how this must occur, especially when there are additional risks imposed by adverse weather. Stakeholders say a FERIC report says, generally, it is practicable to raise and lower stakes without accessing the bunk or trailer assembly. It follows that the exception provided for in subsection (4.1) would rarely, if ever, be applicable.

Investigation has confirmed that stake cross ties are not used any longer on logging trucks and trailers. Thus the current subsection (6) has been deleted.

The inspection already required by subsection (8) is important for worker safety and the new subsection (8.1) will reinforce the significance of this requirement and will allow officers to check that these inspections are being done. This requirement should not impose a significant increase in workload on truck operators, as subsection (8) already requires them to do the inspection, and this new provision will merely require them to keep a written record – possibly in the log book kept in the truck.

Subsection (9) was deleted as air operated stake releases are no longer used.

In response to comments received during the public hearing, this section was amended slightly to use plainer language. As well, the requirement to “implement” procedures was added to subsection (4.3) to clarify the intent of the section. Subsection (8.1) was further amended to avoid duplication with section 179(3)(g) of the *Act*.

Loading specifications **26.67** (1) ~~Logs must not be loaded in a manner that will cause~~

~~(a) the vehicle and its load to become unstable while in transit, or~~
~~(b) excessive strain on the binder units, bunk stake lines, or stakes.~~

In order to control the movement of a log transporter while it is being loaded, an effective means of communication must be established between the transporter operator and any worker loading the logs.

(1.1) Logs must not be loaded on a log transporter unless all workers in the vicinity are in a safe location and clear of any moving logs or logs that might move or fall during that operation.

(1.2) While a log transporter is being loaded, a worker must not stand on the cab platform of the transporter or between the transporter cab and a log being loaded.

(1.3) Logs must be loaded on a log transporter in a manner that meets all of the following requirements:

(a) the load must be stable without the use of binders;
(b) the transporter and the load must remain stable while in transit;
(c) the strain on the binder units, bunk stake lines or stakes must not exceed the load that the units, lines or stakes are designed to bear;
(d) the free and full movement of the transporter must not be impaired.

(2) To ensure that stakes remain at a safe angle, the first tier of logs must be laid tight, and arranged to minimize slack in the stake cables.

(3) Unless securely restrained by other means to prevent logs from slipping off, the bottom tier and the side rows of the log load must extend beyond the front and rear bunks and stakes

(a) at least 30 cm (12 in) on trucks with compensating reach type trailers, or
(b) at least 15 cm (6 in) on other types of trailers.

(4) ~~The log length on trucks must not exceed 27.5 m (90 ft) unless prior permission is obtained from the local Ministry of Forests District Manager or other appropriate authority~~ **The log length on a log transporter must not exceed the design capacity of the road**.

(5) A log whose length is not contained by the stakes must not be loaded above the level of the stakes unless the log

(a) is in a secure lay, and
(b) does not have excessive crook, sweep or deformity.

(5.1) Hazardous limbs must not be transported on a log transporter.

(5.2) A worker must not stand on any part of a load of logs on a log transporter.

(6) Repealed. [B.C. Reg. 313/2001.]

[Amended by B.C. Reg. 313/2001.]

Explanatory Note

The purpose of the subsections (1) and (1.1) is self-evident. These sections should reflect current safe practices. They are included here mainly for loading operations which do not already follow such procedures.

Subsection (1.2) will expand on the current section 26.74 with additional direction about where an operator must not stand during loading operations due to safety concerns.

Subsection (1.3)(a) is based on the premise that binders should be considered as precautionary measures only to ensure the stability of the load.

Subsections (1.3)(b) and (c) reflect the requirements found in the current subsections (1)(a) and (b) with some change in wording to provide more direction than the word “excessive” that is used in the current provision.

Subsection (1.3)(d) is based on the high number of logging truck accidents resulting in many serious injuries and fatalities. It is very important for logging trucks and trailers to have their full range of movement when driving along roads that may have sharp bends. This capability would require proper maintenance (which is addressed in section 26.66(2)) and loading – which is addressed here.

The changes in subsection (4) will connect maximum load length to the capacity of the road, rather than to the arbitrary length of 27.5 m.

After the public hearing, section 26.58 was relocated to section 26.67 (5.1) and (5.2) for clarity – but with no change in wording.

Binders **26.68** (1) Unless the centres of all logs lie below the level of the top of the stakes **on a log transporter**, **at least 2 binders must be installed to restrain the logs before the transporter is moved.**

~~(a) at least 2 binders must be installed to restrain the logs before the logging truck is moved, or if the logs are preloaded onto a trailer, installed immediately after the loading and before the trailer is connected to a tractor, and~~

~~(b) the binders must be checked in transit to ensure they are effective.~~

(1.1) If the logs are preloaded onto a trailer, the binders required under subsection (1) must be installed immediately after the loading and before the trailer is connected to the tractor of the logging truck.

(2) A loaded ~~truck~~ **log transporter** may be moved within the loading area without the binders required under subsection (1) ~~provided that no workers are endangered~~ **if no worker is exposed to the risk of a falling log or other falling debris**.

(3) If logs or log chunks could roll or slide off the ~~truck~~ **log transporter**, or the logs or log chunks are not contained within stakes, at least 2 binders must be used to secure the logs regardless of the height of the load.

(3.1) All binders that must be in place before a load of logs may be transported must be put on

(a) as soon as practicable after loading, and

(b) in a location in close proximity to the loading area.

(3.2) Loads or logs must not be moved or shifted while binders are being applied or adjusted.

(3.3) A binder on a load of logs must be checked and kept tight during transportation of the logs.

(4) Each binder and attachment must have a breaking strength of at least 53 kN (12,000 lbs).

(5) Bundle straps or banding must not be used as binders to restrain logs during hauling**.**

(5.1) Subsection (5) does not apply in a loading area if no worker is exposed to the risk of a falling log or other falling debris.

(6) Binders must be positioned on the load so that they can be safely removed while the load restraining equipment is in position.

Explanatory Note

In subsection (2) the word “endangered” was replaced with expanded wording to indicate the nature of the hazard.

Subsection (3.1) is intended to ensure the installation of all binders will occur in or close to the loading area so that assistance will be readily available if the transporter operator gets into difficulty during that activity.

Subsection (3.2) is a new requirement that should reflect current safe practice, as the person applying or

adjusting binders is in a very vulnerable position unless the logs on the transporter are stable.

Subsection 26.68 (5) prohibits the use of bundle straps or banding as binders as they cannot be tightened during transportation of logs.

Subsection (5.1) creates an exception in the loading area where there is no risk of injury.

~~Unloading~~ Binder removal

26.69 ~~Before binders are removed in preparation for unloading logs the logs on a log transporter must be prevented from falling off the side where the worker will stand to release binders or stakes.~~

(1) In this section, "binder removal station" means a structure that is designed to protect a worker, when releasing binders or stakes, from the maximum anticipated load of falling or sliding logs or log chunks.

(2) Written safe work procedures acceptable to the Board must be developed for

(a) removing binders, and
(b) the use of a binder removal station.

(3) The written procedures developed under subsection (2) must be

(a) posted in a visible location at any place where binders are removed, including a binder removal station, and
(b) maintained in a legible condition.

(4) Binders must not be removed when a worker is preparing to unload logs from a log transporter unless

(a) a binder removal station is being used, or
(b) the logs are otherwise restrained to prevent them from falling on the worker who is releasing the binders or stakes.

(5) Once binders have been removed from a load of logs, the unrestrained load must not be moved if any worker is exposed to the risk of a falling log or other falling debris.

(6) A binder removal station must not be used unless it is certified by a professional engineer as capable of performing its intended function.

Explanatory Note

The current section 26.69 was amended to add a reference to binder removal stations, which are commonly used now.

After the public hearing, subsection (3) was amended to clarify that the requirement for written safe work procedures applies to all locations where binders are removed, not just binder removal stations. These procedures will depend on the nature of the binder removal station or other methods used to protect workers, the type of load and other relevant factors.

Subsection (6) requires a binder removal station to be certified by an engineer. Based on feedback from the public hearing, the implementation of this requirement will be delayed until January 1, 2009 to allow time for operators of existing binder removal stations to get the necessary certification. The implementation of the other subsections in section 26.69 will not be delayed.

Unguarded equipment **26.70** ~~(1) If it is not practicable to provide overhead protective guards on self-loading log transporters or similar equipment, the equipment must not be used if the absence of guarding presents a risk of injury to the operator.~~

~~(2) The heel bar on the operator's side of the loader boom of a self-loading log transporter must be equipped with a deflector shield and must not be used for heeling logs.~~

~~[Amended by B.C. Reg. 253/2001.]~~

Explanatory Note

This section has been moved to the new section 26.13.1 under the new sub-part on “Equipment Operation”.

Part 26: FORESTRY OPERATIONS

Operating provisions **26.71** ~~The operator of a logging truck on a forestry operation or other industrial road must~~

(~~(a) not overtake another moving industrial vehicle, except on a signal from the other vehicle operator,~~
~~(b) use extreme caution when approaching vehicles coming from the opposite direction, and~~
~~(c) when following crew transportation vehicles, keep a safe distance, having due regard for road and grade conditions and visibility.~~

Operating procedures **26.71.1** **(1) The operator of a log transporter must follow safe operating procedures.**

(2) Without limiting subsection (1) the operator referred to in subsection (1) must

(a) not overtake another moving industrial vehicle, except on a signal from the other vehicle operator,

(b) use extreme caution when approaching vehicles coming from the opposite direction,

(c) keep a safe distance when following crew transportation vehicles, having due regard for road and grade conditions and visibility,

(d) drive at a speed appropriate to the log transporter's capabilities, the road design and condition, the traffic, the visibility and the weather conditions, and

(e) not operate the log transporter while impaired by

(i) fatigue, or

(ii) any other cause, substance or matter

that could prevent the operator from operating the log transporter safely.

Explanatory Note

There are a significant number of logging truck accidents resulting in serious injuries and fatalities. Therefore some requirements have been added to Part 26 about operating these vehicles, to address this serious problem.

There have been a number of incidents reported where speed in excess of road design criteria or driving too fast for prevailing conditions contributed to the accident. The addition of subsection 2 (d) will address this issue.

Subsection (2)(e) will address impairment. Numerous scientific studies have cited fatigue as a contributing factor in many trucking accidents. WorkSafeBC has conducted studies within British Columbia which show a high prevalence of fatigue indicators in British Columbia truck drivers. In response to feedback received during the public hearing, subsection (2)(e) has been further amended for clarification. Further, some stakeholders suggested this subsection puts the "blame" on the operator,

whereas responsibility should be put on the people planning and scheduling the work to ensure drivers are not subject to situations in which they will become fatigued in order to meet the schedule. No amendment was made to this section in response to this concern, as section 26.2 addresses the planning issue.

The amendment does not include the regulation of hours of driving. Evidence indicates this is not the only factor affecting driver fatigue. The amendment in subsection (2)(e) above will allow the flexibility required to evaluate all factors affecting driver fatigue. The 2007 amendments to the *Motor Vehicle Act Regulations (BC)* apply to logging trucks on all roads. Those Regulations restrict the hours of driving and require a log book to be maintained by logging truck operators to monitor the hours of driving. WorkSafeBC has no involvement in those regulations.

Daily log **26.71.2** **(1) In this section, "hauling cycle" means the time allowed for each round trip.**

(2) The operator of a log transporter must maintain a daily log into which must be entered the following information:

(a) the date of the entry;
(b) the printed name of the operator;
(c) the truck licence plate or unit number;
(d) the odometer reading of the truck at the beginning of the day, if the truck has an odometer;
(e) the name of each contractor or employer for whom the operator worked during the day;
(f) the start and stop time of each trip the operator makes;
(g) the distance driven for each trip the operator makes;
(h) the total distance driven by the operator during the day;
(i) the total driving hours during the day;
(j) the hauling cycle.

Explanatory Note

Most of the content in this section was previously in section 26.71(2). It has been reorganized for clarity, and to separate the operating provisions from the requirement for a daily log. Section 26.71.2 (2)(d) recognizes that not all trucks have odometers.

This section will require the operator to maintain a log book. This will allow a Board officer to determine if the forestry operation is being planned and conducted in a manner consistent with safe work practices for logging truck operators. If logging truck operators are driving an excessive number of hours or at excessive speeds, this may indicate there has been a failure to properly plan this aspect of the forestry operation as required under section 26.2. There is some potential overlap between the requirement in this section to keep a daily log, and the 2007 amendments to the *Motor Vehicle Act Regulations (BC)* which also require logging truck drivers to maintain a log book, with some exceptions. However, under the Motor Vehicle Act Regulations, only a peace officer has a right to have the log book produced. Thus, it is necessary to have similar requirements here, so that Board officers can have access to this information if necessary.

Warning devices

26.72 ~~A logging truck must be equipped with a horn or whistle which~~ **A log transporter must be equipped with a horn or whistle which, under normal conditions;**

(a) is distinctly audible at a distance of 300 m (1,000 ft), and

(b) has a tone distinct from the whistles used by yarders or loaders in the vicinity.

Explanatory Note

New words were added in this section to deal with unusual situations where a horn might not be audible for the whole distance – for example, into a very strong wind.

The reference to “logging truck” was replaced with “log transporter” for consistency. There is a new definition of log transporter in section 1 of Part 26.

Non-slip steps	**26.73**	~~Steps and working platforms for access to mobile equipment must be equipped with slip resistant surfaces.~~

Explanatory Note

This section has been deleted as these requirements would be covered in section 26.13.

Restriction **26.74** ~~A worker must not stand, on the cab platform of a logging truck, when the truck is being loaded.~~

Explanatory Note

This section has been moved to section 26.67(1.2) as that section is about loading logs and is a more appropriate location for this requirement.

Riders **26.75** ~~Only the operator and one other authorized person may ride in the cab of a loaded logging truck, except in an emergency.~~

Explanatory Note

This section has been deleted as this issue is dealt with in more detail in section 16.31 “Rider restriction” of Part 16 “Mobile Equipment”.

Securing trailers **26.76** (1) Empty ~~logging truck~~ **log transporter** trailers, when loaded onto tractors, must be adequately secured against dislodgment.

(2) Handholds or other suitable facilities must be installed on trailer or semi-trailer reaches if workers are required to manually assist in coupling them to tractors.

Explanatory Note

The more general term “log transporter” replaces “logging truck”. There is a new definition of log transporter in section 1 of Part 26.

Assistance on steep grades	**26.77**	If the braking power of equipment is insufficient to provide adequate control on a slope, the vehicle must be snubbed or assisted.

Explanatory Note

Originally, it was proposed to move this requirement and incorporate it in the previously proposed new section 26.79.1, as that section would deal more fully with operating equipment on steep grades. However, that proposed change has been deferred for the reasons set out in the Explanatory Note for section 26.79.

Transporting workers **26.78** ~~The operator of a vehicle transporting workers on a forest operation road must not overtake and pass a moving and loaded logging truck or low bed transport truck, except upon a signal from the truck driver and only under suitable road conditions.~~ **An operator of a vehicle transporting workers in a forestry operation on a road must not overtake and pass a moving and loaded log transporter or low bed transport truck, unless**

(a) that operator receives a signal to proceed from the operator of the loaded log transporter or the operator of the low bed transport truck, and

(b) the road conditions are suitable for that manoeuvre.

Explanatory Note

This section was reorganized for clarity.

ROADS AND ROAD MAINTENANCE

Haul road standards	**26.79**	Roads, bridges, elevated platforms, and other structures used by vehicles transporting workers, logs or other forest products in forestry operations must be constructed and maintained to a standard which will permit safe transit.

Explanatory Note

Since the public hearing, sections 26.79 to 26.84 have been returned to their original wording. The MOF has indicated a new *Resource Road Act* is a priority issue with Government and the final draft of that legislation should be available by early 2008. Most likely that legislation will have a significant impact on responsibility for road use in forestry operations, and may create areas of overlap or conflict with the corresponding sections in Part 26. As a result, and also based on stakeholder feedback at the public hearing, the proposed amendments to Part 26 on road design and road use have been deferred until a new *Resource Road Act* is available. At that time, the corresponding sections in Part 26 will be reviewed again, with a view to taking proposed amendments out to public hearing as soon as practicable. This affects the previously proposed amendments to section 26.71, 26.77 and sections 26.79 to 26.84. At this time, the original wording in those sections has been retained without amendments, except for a minor change in section 26.84.

Creating additional hazards	**26.80**	Road or skid trail construction, including any blasting activity, must be carried out in a manner that prevents hangups, hanging broken tops or limbs, leaners, sidebind of pushed trees, or similar hazards which could endanger fallers or other workers.

Explanatory Note

See Explanatory note for section 26.79.

Bull rails **26.81** The open sides of bridges, elevated truck weigh scales and associated elevated ramp approaches and other elevated structures used by logging trucks must be equipped with substantial and well secured continuous timber or log curbs or bull rails of sufficient height to prevent vehicles from running off the structure, but not less than 25 cm (10 in).

[Amended by B.C. Reg. 312/2003.]

Explanatory Note

See Explanatory note for section 26.79.

Roadside hazards **26.82** (1) Dangerous trees, loose rocks, stumps, or other unstable materials that are hazardous to road users must be removed or cleared for a safe distance back from roadsides or roadside banks.

(2) Brush, foliage or debris which prevents an adequate view by a vehicle operator of traffic approaching at roadway intersections or on sharp curves must be cleared and all possible precautions must otherwise be taken to control the hazards created by limited sight distance.

Explanatory Note

See Explanatory note for section 26.79.

Traffic control systems **26.83** (1) When 2 or more vehicles are using a section of a road which is too narrow to permit them to pass, an effective traffic control system must be used by all vehicles on the road.

(2) The traffic control system must include

(a) turnouts, where required,

(b) vehicles operating with their headlights and, if fitted, flashing beacons, turned on,

(c) warning signs where required, and

(d) instructional signs, including kilometer and road name/number signs, and the radio frequency for traffic control if one is being used.

Explanatory Note

See Explanatory note for section 26.79.

Weigh scales **26.84** (1) Repealed. [B.C. Reg. 312/2003.]
<See section 26.81 of the OHS Regulation.>

(2) Weight recording house structures, forming part of a ~~logging truck~~ **log transporter** weigh scale unit, must

(a) be sufficiently offset from the scale balance platform to provide an adequate margin for log load clearance, or

(b) have an effective barrier erected between the weigh scale deck and the house.

Explanatory Note

See Explanatory note for section 26.79. The reference to “logging truck” has been changed to “log transporter” for consistency.

WATER OPERATIONS

Condition of boats

26.85 (1) A boat used in or about a forestry operation must be maintained in good mechanical and seaworthy condition.

(2) A boat must be inspected daily before first use, and thereafter as required, and defects must

(a) ~~be reported immediately in writing to the supervisor or employer, and~~ **be reported immediately in writing to the supervisor, and**

(b) if they affect the safe operation of the boat, be remedied before the boat is used.

[Amended by B.C. Regs. 185/99, 312/2003.]

Explanatory Note

The reference to “employer” in subsection (2)(a) is replaced with a more general reference to the person with control, which could be the employer. It is not always meaningful to refer to “the employer”. For example, an independent operator with POP is a “worker” but does not have an “employer”

Boat equipment **26.86** (1) A boat must be equipped with

(a) effective machinery guarding that meets the requirements of this Regulation,
(b) effective guards or insulation on hot exhaust pipes or stacks,
(c) suitable cabins, screens or guards to protect operators against injury from towline breakage if the boats are regularly required to pull logs, booms or barges,
(d) suitable cabins, screens, or guards meeting the requirements of *WCB Standard G606, Boom Boat Operator Protective Structures* if operators are subject to injury from logs or limbs intruding into the control area,
(e) suitable hydraulic or other steering systems that will not transmit forces that could cause injury to the operator through feedback of rudder reaction,
(f) deck matting or other surface cover which provides an effective grip for caulked footwear, and
(g) effective heating.

(2) A boat operated in navigable waters during the period from sunset to sunrise, or in conditions of restricted visibility, must

(a) Repealed. [B.C. Reg. 312/2003.]
(b) have deck and cabin lighting, where necessary to provide safe levels of illumination aboard the craft, and
(c) have searchlights or floodlights, where necessary to facilitate safe navigation and to illuminate working or boarding areas adjacent to the craft.

(3) Buoyancy equipment meeting the requirements of Part 8 (Personal Protective Clothing and Equipment) must be worn by each worker on a boom boat or in an open boat.

[Amended by B.C. Reg. 312/2003.]

<See also section 4.4 of the OHS Regulation.>

Explanatory Note

No changes.

Boat size **26.87** (1) A boat used for breaking down unstable groups of logs which are criss-crossed or difficult to break free must be of sufficient size to ensure that vessel stability is not compromised.

(2) A boat must not be used to tow **log** booms or barges that, by reason of weight, wind, current or sea conditions, are beyond the capacity of the towing craft to safely control.

Explanatory Note

Subsection (2) was clarified with a minor addition.

Overloading **26.88** A boat must not be loaded with personnel or equipment so as to adversely affect its stability or seaworthiness.

Explanatory Note

No changes.

Presence of operator	**26.89**	When a boat is used to push, pull or restrain log bundles during breaking operations**,** the operator must remain on the boat **unless the boat is firmly secured to the log bundles in a manner that allows the operator to get on and off safely.**

Explanatory Note

Some flexibility was added to this section. If the operator leaves an unsecured boat, there is a risk the boat may drift away and strand the operator on the log bundle. If the boat is secured as above, that risk should be eliminated.

Wind and sea conditions	**26.90**	A boat designed for use in calm waters must not be operated in wind or sea conditions that adversely affect its safe operation.

Explanatory Note

No changes.

Hand signals **26.91** If the movement of a boat is regulated by hand signals, the code of signals authorized by the Board must be followed.

Explanatory Note

No changes.

Elevated work platforms	**26.92**	~~If it is impracticable to install a guardrail on an elevated work platform used in water operations, the platform must be at least 90 cm (3 ft) wide.~~

Explanatory Note

This section is deleted as this type of work platform is no longer used in the industry.

General requirements for booming	**26.93**	(1) ~~Booms~~**Log booms** must be made up and sized ~~according to industry standards~~ with due regard for the size and quality of the available rigging. 2) Booming grounds must be of sufficient width to safely accommodate booms that are being worked on. (3) Booming grounds must be provided with safe access ~~and suitable walkways~~.

Explanatory Note

The term “according to industry standards” was deleted earlier. The OHSR creates standards or refers to existing established standards. There are no documented industry standards on this issue.

In response to feedback received during the public hearing, subsection (3) has been amended. Some stakeholders said the section is not practical as walkways are not needed in many small booming grounds. Thus, the reference to walkways has been removed. The safety of workers can be protected by the requirement for “safe access”. That would include walkways, where appropriate.

Rigging **26.94** (1) Booming chains, swifters and related items of rigging used in booming operations must be maintained in safe condition.

(2) Rigging which is damaged or deteriorated enough to be a danger to workers must be removed from service.

(3) The owner of the facility receiving a completed log boom must ensure that boomsticks are

(a) stripped of excess rigging before they are returned into service, and

(b) secured in a manner that will prevent entanglement during transit.

Explanatory Note

There is no change to the original section.

Winches **26.95** ~~A boat used to make up or strip booms must have a suitable winch.~~ **A boat that is used to make up or strip booms must use a winch appropriate to the task that**

(a) is capable of withstanding the maximum stress that could be imposed while moving log bundles, and

(b) has a large enough diameter to hold all the line that is needed to complete the task.

Explanatory Note

The phrase “suitable winch” was replaced with provisions that are more descriptive of the winch requirements. This should assist with compliance.

Manual boom stripping	**26.96**	If boom stripping is done manually, ~~the employer must ensure there are~~ **a** sufficient **number of** workers **must be** available to ~~safely~~ handle the rigging **safely**.

Explanatory Note

The reference to “employer” was replaced with more general language as it is not always meaningful to refer to “the employer”. For example, an independent operator with POP is a “worker” but does not have an “employer”.

Portable augers	**26.97**	Repealed. [B.C. Reg. 312/2003.] <See section 4.3 of the OHS Regulation.>

Explanatory Note

Dumping log bundles	**26.98**	~~The person causing a log bundle to be dumped must ensure that workers will not be endangered by the dumping process.~~ **A log or log bundle must not be dumped into water if there is a known or reasonably foreseeable risk to a worker.**

Explanatory Note

This section was amended to recognize that single logs may be dumped back into water, for example after de-barking, and to make it clear the section applies to water operations.

In response to feedback received during the public hearing, this section has been further amended to clarify the standard that applies to the assessment of the risk involved.

Part 26: FORESTRY OPERATIONS

Rescue **26.99** ~~(1) When work is done on or over water the employer must establish and maintain an effective means to carry out rescue operations.~~

~~(2) In circumstances where rescue or evacuation may be necessary by boat, the employer must have a suitable boat readily available.~~

Explanatory Note

This section has been deleted as these obligations are effectively covered by section 4.13 “Risk Assessment” in Part 4 “General Conditions” and by section 32.9 “Work areas over water” in Part 32 “Evacuation and Rescue”.

Table 26-1: Audible call signals

7 LONG whistles	ACCIDENT
1 LONG whistle, continued until emergency condition has ceased to exist	EMERGENCY HAZARD CONDITION
1 LONG - several SHORT whistles, repeated	FIRE
1 LONG whistle (* also used by the equipment operator to indicate a delay and must also be given before the equipment is again operated)	STARTING WHISTLE
4 LONG whistles	CALLING SUPERVISOR
3 LONG whistles	CALLING HOOKER
3 LONG - several SHORT whistles	CALLING HOOKING CREW
2 LONG - 1 SHORT whistle	CALLING SECOND RIGGER
2 LONG - several SHORT whistles	CALLING SECOND RIGGER AND BACK RIGGERS
1 SHORT - 1 LONG whistle	CALLING FOR WATER BAG
* When an operating delay has occurred and the equipment is ready to re-operate, the signal immediately following the "one LONG" re-start signal must be the repeat instruction signal.	

Table 26-2: Audible signals for vehicle operations

1 whistle	STOP
2 whistles	BACK UP
3 whistles	GO AHEAD

Table 26-3: Audible signals for high lead logging

3 SHORT	**AHEAD* ON MAINLINE**
3 SHORT - pause - 1 SHORT	AHEAD ON STRAWLINE
2 SHORT - pause - 2 SHORT	BACK* ON HAULBACK
2 SHORT - pause - series of SHORTS	SLACK HAULBACK
Series of SHORTS	SLACK MAINLINE
1 LONG (precedes any signal for slow operation)	SLOW
1 SHORT	STOP ALL LINES
3 SHORT - pause - 2 SHORT	TIGHTLINE
2 SHORT	SLACK HAULBACK AND MAINLINE SIMULTANEOUSLY
3 SHORT - 1 SHORT	WHEN BUTT RIGGING AT TREE SEND OUT STRAWLINE ON HAULBACK
3 SHORT - pause - 1 SHORT - pause - 1 SHORT of each extension	WHEN BUTT RIGGING AT TREE SEND OUT STRAWLINE EXTENSIONS
2 SHORT - followed by a number of LONGS indicates the number of chokers required	WHEN BUTT RIGGING IS AT TREE SEND OUT CHOKERS
2 LONG	WHEN BUTT RIGGING IS AT TREE PUT ON/TAKE OFF SCAB BLOCK
5 SHORT	WHEN BUTT RIGGING IS AT TREE INSPECT THE RIGGING
2 SHORT - pause - 2 SHORT - pause - 2 SHORT - pause - 1 SHORT	TIGHTEN GUYLINE
2 SHORT - pause - 2 SHORT - pause - 2 SHORT	SLACK GUYLINE
* "AHEAD" means haulage line moves toward machine * "BACK" means haulage line moves away from machine	

Table 26-4: Audible signals for slackline logging

a) Regular Signals:	
1 SHORT - pause - 2 SHORT	AHEAD ON SKYLINE
3 SHORT	AHEAD ON SKIDDING LINE
2 SHORT - pause - 2 SHORT	COME BACK ON HAULBACK
3 SHORT - pause - 1 SHORT	AHEAD ON STRAWLINE
3 SHORT - pause - 2 SHORT	TIGHTLINE
1 SHORT	STOP
Several SHORT	SLACK SKYLINE
3 SHORT - pause - several SHORT	SLACK SKIDDING LINE
2 SHORT - pause - several SHORT	SLACK HAULBACK
b) Slow Signals:	
Any regular signal preceded by a LONG whistle is a slow signal. Any signal that the Engineer is not sure of is a "STOP" signal	
c) Miscellaneous Signals:	
3 SHORT - when carriage is going back	HOLD SKIDDING LINE TIGHT AND KEEP ON COMING BACK UNTIL 'STOP' SIGNAL IS RECEIVED
2 SHORT - when carriage is going back	HOLD SKIDDING LINE TIGHT, START LOWERING SKYLINE, KEEP ON COMING BACK
A REPEAT - 2 SHORT	SLACK SKYLINE FASTER
2 SHORT - when carriage is going ahead	PICK UP ON SKYLINE
TIGHTLINE SIGNAL (3 SHORT - pause - 2 SHORT) when carriage is going ahead	SKIDDING LINE IS WRAPPED AROUND SKYLINE
When carriage is going back and "STOP" signal (one SHORT) comes in - Engineer stops carriage and starts lowering skyline. If a slack skidding line signal (three SHORT - pause - several SHORT) comes in while lowering the skyline, it means slack skidding and skyline at same time so that chokers come straight down.	
d) Signals to Chaser When Carriage is at Landing	
3 SHORT - pause - 1 SHORT	SEND BACK STRAWLINE ON HAULBACK
3 SHORT - pause - 1 SHORT followed by a number of evenly spaced SHORTS	SEND BACK THAT NUMBER OF COILS OF STRAWLINE
3 SHORT - pause - 1 SHORT – pause - 2 SHORT	SEND BACK END OF STRAWLINE HOOKED INTO CHOKER BELL FOR A DEAD LINE
2 SHORT - pause - a number of evenly spaced LONGS	SEND BACK THAT NUMBER OF CHOKERS
5 SHORT	INSPECT BUTT RIGGING

Table 26-5: Audible signals for mechanical slack pulling and drop line carriages on skyline yarders or running skyline yarders (as applicable)

a) Regular Signals:	
1 SHORT - pause - 2 SHORT	PICK UP SKYLINE
1 SHORT - pause - 2 SHORT - pause - several SHORTS	SLACK SKYLINE
2 SHORT - pause - 2 SHORT	COME BACK ON HAULBACK
1 SHORT - (when carriage is stopped by hooker then the machine operator automatically lowers chokers to ground by winding in slackpuller and paying out skidding line)	STOP ALL MOVING LINES
1 SHORT	STOP PULLING SLACK
5 SHORT	PULL SLACK AGAIN
1 SHORT - etc.	STOP PULLING SLACK
2 SHORT (this means HOLD haulback - slack the slackpuller - wind in skidding line)	PULL LOGS TO CARRIAGE
3 SHORT (this means wind in skidding line and slackpuller and pay out haulback)	AHEAD ON SKIDDING LINE (use interlock if available)
2 SHORT - pause - several SHORTS	SLACK HAULBACK
3 SHORT - pause - several SHORTS	SLACK SKIDDING LINE
3 SHORT - pause - 1 SHORT	AHEAD ON STRAWLINE
3 SHORT - pause - 1 SHORT - pause - several SHORTS	SLACK STRAWLINE
1 SHORT - pause - several SHORTS	SLACK SLACKPULLER
3 SHORT - pause - 2 SHORT (line is wrapped around skyline)	TIGHTLINE
b) Slow Signals:	
Any regular signal preceded by a LONG whistle is a slow signal. Any signal the machine operator is not sure of is a "STOP" signal.	
c) Miscellaneous Signals:	
When carriage is going ahead to landing	
2 SHORT	STOP CARRIAGE AND PULL LOGS UP CLOSER TO CARRIAGE
Several quick SHORTS	PICK UP SLACKPULLER FASTER
1 SHORT - pause - 2 SHORT	PICK UP SKYLINE
Signals to chaser when carriage is at landing	
5 SHORT	INSPECT THE RIGGING
2 SHORT - pause - 1 LONG for each choker	SEND BACK THAT NUMBER OF CHOKERS
3 SHORT - pause - 1 SHORT	SEND OUT STRAWLINE ON HAULBACK
3 SHORT - pause - 1 SHORT - pause - 1 SHORT for each extension	SEND STRAWLINE EXTENSIONS (NOT COILS) ON HOOK
1 LONG - pause - 2 SHORT - pause - 2 SHORT	SEND PREARRANGED MISCELLANEOUS RIGGING TO BACK-END ON HOOK (E.G. STRAWLINE COILS)

Table 26-6: Requirements for radio controlled carriages

- These carriages are fitted with and controlled by an onboard computerized radio control system. This radio system is operated independently through a transmitter separated from that of the yarder - The yarding and carriage frequencies must be separate, registered and coordinated through the WCB co-ordination system to ensure that one does not interfere with the other or with another operation. Contact the WCB for more information. - An audible signal must be sounded at the carriage and not at the yarder. This signal must have a tone different from that of the yarder signal. - Standard skyline signals will apply at the yarder	
a) Audible radio signals for hydraulic accumulator or motor driven slack pulling and dropline carriages with or without skyline lock	
2 SHORT	LOCK SKYLINE CLAMP
5 SHORT	SLACK THE DROPLINE
1 SHORT	STOP PULLING SLACK
5 SHORT, etc.	PULL SLACK AGAIN
2 SHORT - pause - 1 LONG	UNLOCK SKYLINE CLAMP
If fitted with engine controls	
1 SHORT - pause - 1 LONG	STOP ENGINE
1 LONG - pause - 1 SHORT	START ENGINE
Carriages with variable dropline speeds must have a special signal for the speed changes. These signals must be different from standard yarding signals.	
b) Audible radio signals for radio-controlled motorized self-contained yarding carriages with or without skyline locks	
2 SHORT	LOCK SKYLINE CLAMP
5 SHORT	SLACK THE DROPLINE
1 SHORT	STOP THE DROPLINE
3 SHORT	PICK UP THE DROPLINE
2 SHORT - pause - 1 LONG	UNLOCK SKYLINE CLAMP
If fitted with engine controls	
1 SHORT - pause - 1 LONG	STOP ENGINE
1 LONG - pause - 1 SHORT	START ENGINE
Carriages with variable dropline speeds must have a special signal for the speed changes. These signals must be different from standard yarding signals.	

Table 26-7: Hand signals for logging - Cable logging

Mainline ahead, normal. Raise one arm.

Mainline ahead, fast. One arm raised, hand 'fluttering'.

Mainline ahead, slow. Both arms raised.

Stop any moving line and hold.

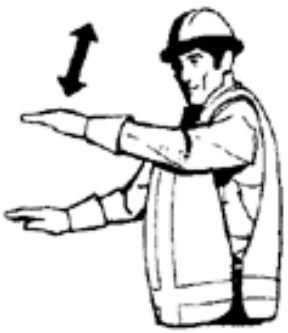
Slack the mainline, easy. Both hands extended at sides, hands fluttering.

Ahead on haulback, normal speed.
One arm extended, rotating.

Haulback ahead, slow. Both
arms extended, rotating.

Slack the haulback. Hands
in front of body using
chopping motion.

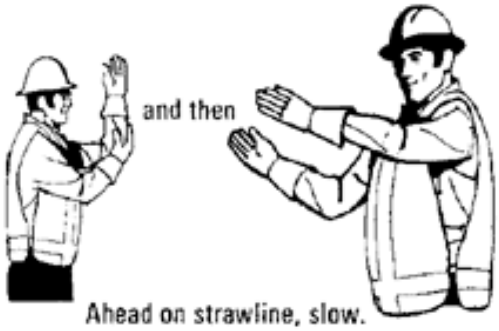
Tightline. Hands overhead,
fingertips touching.



Slack the strawline. Pat
back of hand with other
hand.

Hold dog drum or lock brake lever. Clasp one hand with the other.

Ahead on strawline. Touch hand to bent elbow.



Ahead on strawline, slow.

Slack mainline all off. Arm extended at side, flipping wrist.

LOWER SKYLINE/GUYLINE
Pat top of head as applicable

SLACK THE DROPLINE
Cross arms in front and away from body flipping wrists

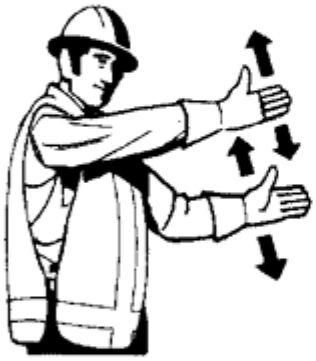
AHEAD ON THE DROPLINE
Cross arms in front

RAISE SKYLINE/GUYLINE
Move hand up from top of head several times

Table 26-7: Hand signals for logging (Continued) - Skidding

To back up the tractor — rotate the hand.

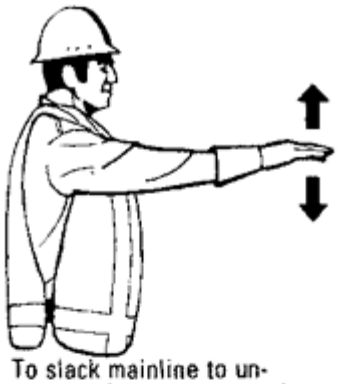
When hooker wants tractor to back in, slap butt.
If tractor is to head in, put fingers on top of the head.



Tractor hooker's signal to tractor driver as to where chokers are to be dropped. Hooker faces in direction tractor is to stop and stands where chokers are to be dropped. Indicates what is to be done by swinging both hands in front, hands open with thumbs up.

To use upper winch, pat back of wrist with palm of other hand. Follow by standard signals.

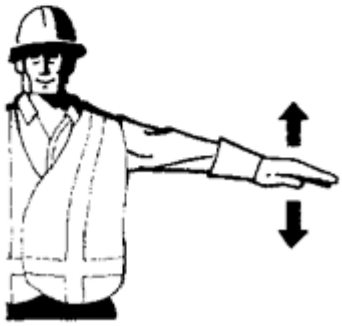
Ahead on mainline.



To slack mainline to unhook choker – wave hand extended, palm down.

Stop any moving line and hold.

To stop tractor – hold one hand out with palm down.



Go ahead on tractor.

Table 26-8: Voice commands for grapple yarders

Item	To instruct operator to:	Signaller says:
1	Grapple log and go ahead	CLOSE AND GO
2	Close grapple but not go ahead	CLOSE
3	Stop rigging	STOP
4	Open grapple	OPEN
5	Move empty grapple ahead	AHEAD
6	Move empty grapple back	BACK
7	Ahead on strawline	AHEAD ON THE STRAWLINE
8	Slack mainline	MAINLINE
9	Slack haulback	HAULBACK
10	Lower grapple	DOWN
11	Slack strawline	SLACK STRAWLINE
12	Swing to operator's left	SWING LEFT
13	Swing to operator's right	SWING RIGHT
14	Hold haulback and go ahead on mainline	TIGHTLINE