



**BCTS**  
BC Timber Sales  
Skeena

## Skeena Business Area Planning and Monitoring Steep Slopes for Ground Based Operations

### **Purpose**

To provide BC Timber Sales staff and contractors guidance to be implemented during planning of all ground based equipment operations. Steep slopes present a hazard to ground based machinery; whenever ground based harvesting cannot be planned safely, another system deemed to be safe must be prescribed.

### **WorkSafe BC Occupational Health & Safety Regulation 26.16 Slope Limitations**

For specifics go to

<http://www2.worksafebc.com/Publications/OHSRegulation/GuidelinePart26.asp#SectionNumber:G26.16>

In general WSBC regs limits logging equipment to the following

- 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%.

### **Safe Planning of Ground Based Operations**

It is integral that all known safety hazards associated with ground based operations are communicated to prospective bidders during the timber sale tendering process; this is accomplished through the Timber Sales Safety & Highlights document, as well as the Harvest Plan Maps. Identification of hazards up front will ensure that Licensees can safely plan forestry operations, as per section 26.2 of the Occupational Health and Safety Regulation. Also refer to the attached BC Forest Safety Council draft industry guidelines "*Mechanical Equipment Operation on Steep Slopes*".

**Consider the run-out**, layout personnel should take into consideration the run-out (either in or out of the block). For example 40% slopes that run out onto flat ground is much safer than 40% slopes that have an 80% slope below it. Therefore; the steeper the run-out the more cautious the layout should be.

When slopes over 35% (rubber tire skidder) and 40% (crawler tractor) exist in a proposed project, BCTS staff and or planning development contractors will do the following:

- Identify known slopes on applicable project plan maps (Site plan or Harvest plan). Using point slopes from the cruise, or side shots from the road traverse are acceptable.
- Identify general equipment (logging system) that was considered in the design of each project area and any specific areas that were laid out for another type of system (i.e. 80% of the block is ground based, 20% is cable based).
- Make available all other relevant known site information (i.e. slope, terrain classification, soil depths (watch out for thin soils and exposed rock on steep slopes), ground conditions, tree size, species, ecological classification, and harvesting site specifications)
- Identify within Safety and Highlights package (TSL's) or the Information to Bidders (Contractors) known steep slopes over 35% and 40 % exists in a cut block.

## Operations

1. During pre-works if slopes exceed 35% or 40%, BCTS staff should do the following;
  - ✓ Specifically mention to the client there are slopes exceeding 35% or 40%
  - ✓ Inform the client of the location (harvest plan or site plan) of all the known site information that has been collected, to assist them in completing their site risk assessment and their safe work procedures.
  - ✓ Provide a copy of BCFSC Steep Slope Resource Package
  - ✓ All of this should to be put in writing in the comments section of the pre-work.
2. During inspections, if staff observes ground based equipment exceeding slope limitations, they should ask the site supervisor if a site risk assessment has been completed, and if safe work practices have been developed. BCTS does not review or approve the site risk assessments or the safe work practices. Staff only asks if they are in place for each cut block. We can ask to see them, but only to prove they exist, not to determine their adequacy.
3. Despite a completed site risk assessment and a block specific safe work practice, if staff observes operations occurring that appear to put workers at risk, we should report and document potentially unsafe acts and or conditions to the site supervisor. If the client disregards our concerns and continues to put their workers at risk; we have an obligation under section 3.10 to report this to Worksafe BC.

Note TSL holders obligations under WSBC regulations is to have a qualified person conduct a risk assessment and to have written safe practices acceptable to WSBC developed and implemented to ensure the equipments stability during operation.

**BC Forest Safety Council “Steep Slope Resource Package”.**

[http://www.bcforestsafe.org/steep\\_slope.html](http://www.bcforestsafe.org/steep_slope.html)