

## Teaching Outline: Communication Between the Phases

<b>Date:</b>	
<b>Teaching Topic:</b>	Communication Between the Phases
<b>Type of Session/Audience:</b>	Tailgate Session Yarding crew, Grade crew, Supervisors, Planners
<b>Session Length:</b>	15-20 minutes
<b>Materials Required:</b>	<ul style="list-style-type: none"> <li>• OHS regulations for reference (see appendix 2)</li> <li>• Flipcharts and pens</li> <li>• Narrative notes from video (see appendix 1)</li> <li>• Video: Communication Between Phases</li> <li>• Computer/TV with DVD player to play video</li> </ul>
<b>Session Requirements:</b>	<ul style="list-style-type: none"> <li>• Meeting room of sufficient size to comfortably seat the size of the group</li> <li>• Instructor will need to take notes of discussion items</li> <li>• Instructor will need to take note of any unresolved questions and seek answers</li> </ul>
<b>Learning Objectives:</b>	<ul style="list-style-type: none"> <li>• To discuss issues that have the potential to be hazardous related to yarding and road building</li> <li>• To emphasize the importance of communication</li> </ul>
<b>Class Outline &amp; Suggested Times:</b>	<ul style="list-style-type: none"> <li>• Introduce and explain the purpose of this module (1-2 minutes)</li> <li>• Present video (4:51 minutes)</li> <li>• Present teaching notes (8-10 minutes)</li> <li>• Open up Discussion (4-5 minutes)</li> <li>• Competency Evaluation (2-3 minutes)</li> <li>• Closing remarks (1-2 minutes)</li> </ul>

### Detailed Class Outline:

<p><b>1. Introduce and explain purpose of the module</b></p>	<ul style="list-style-type: none"> <li>• To discuss potential safety issues when yarding and building roads.</li> <li>• To re-inforce the importance of communication</li> </ul>
<p><b>2. Present Video</b></p>	<ul style="list-style-type: none"> <li>• Communication Between Phases</li> </ul>
<p><b>3. Present Teaching Notes (see Appendix 1)</b></p>	<ul style="list-style-type: none"> <li>• Highlight main ideas from the video that will help lead your discussion</li> </ul>
<p><b>4. Open up Discussion, using the following as a guide</b></p>	<ul style="list-style-type: none"> <li>• What issues are we facing with our landings?</li> <li>• Do yarding crews communicate with planners prior to the road construction?</li> <li>• To discuss issues related to building Steep Grades and Switchbacks</li> <li>• To discuss issues related to grade hoes pioneering ahead on steep slope road construction</li> <li>• Emphasize the importance of communication</li> <li>• Can you think of any other hazards that exist but were not mentioned by the video?</li> </ul>
<p><b>5. Competency Evaluation</b></p>	<ul style="list-style-type: none"> <li>• List and explain some of the things that this video referred to that can help reduce hazardous conditions.</li> <li>• What needs to happen if any worker feels that something is causing a safety concern?</li> </ul>
<p><b>6. Closing Remarks</b></p>	<ul style="list-style-type: none"> <li>• Reminder: if you are not sure – stop, call partner/supervisor.</li> <li>• Reminder: the best time to give and receive feedback is when the crew is still onsite.</li> <li>• Identify challenging areas upfront</li> <li>• Use experienced crew/supervisors to help identify how to best control a potentially hazardous situation.</li> </ul>

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## Appendix 1: Communication Between the Phases FACILITATOR NOTES

### KEY THEMES:

- Inadequate landings can cause potential hazardous situations as well as being costly.
- Steep grades and switchback present potential hazardous conditions, it is important that road builders, planners and supervisors communicate with one another during the construction phase to ensure roads are constructed to ensure worker safety.
- Grade hoes pioneering beyond bedrock out cropping's present potential hazardous conditions. It is important that Grade hoe operators communicate with their supervisor when they move beyond bedrock when on steep slope road construction.
- It is important that all potential risks are assessed and the work is planned to ensure it can be conducted safely.

### VIDEO NARRATIVE NOTES:

- If possible roads need to be constructed wider to allow for adequate room to land logs. When landing areas are too small a loader needs to work with the grapple yarder. Lost that cannot be landed on the road can potentially slide back down the hill causing a potential hazard. Using a loader in conjunction with a grapple yarder is a slow costly process. If a difficult situation is encountered by the planners asking for the assistance of woods foreman, hooktenders and operators would be a useful suggestion.
- The layout and construction of steep roads and switchbacks must take into account weather conditions when road will be used, road transitions to steep sections or switchbacks, leans in switchbacks and traction. We want to discuss today some of the appropriate risk assessments that should be conducted in planning log hauling operations on varying road grades to ensure worker safety. Potential hazards that both planners and road builders need to be concerned with are:
  - Road is designed for the appropriate weather that will be present when hauling is taking place,
  - Table tops-where the grade transition is too rapid,
  - Leans in switchbacks remain remains level through the switchback and the grade remains consistent through the switchback,
  - Ensure the material provides the appropriate friction to ensure safe travel,

Remember is there is a concern planners can come back to reassess the situation.

Grade hoe operators can get into trouble when:

- There is a lack of punchon,
- There is a lack of water control,
- The outside track is not on stable ground.

Being hundreds of metres ahead on right away can be hazardous if there is a breakdown or something worse.

## Appendix 2: Communication Between the Phases FACILITATOR NOTES

### Part 26 Forestry Operations and Similar Activities Forestry Work Areas:

#### 26.2 Planning and conducting a forestry operation

- (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.

#### 26.56 Work area arrangement

- (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.

## Part 26 Forestry Operations and Similar Activities Roads and Road Maintenance

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

Section 26.2 of the OHS Regulation ("Regulation") states:

- (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.

### Purpose of guideline

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

### Risk assessment

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

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

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

- The vehicle can be brought to a safe stop on the road surface and grade given the weather conditions at that time.
- The vehicles are properly maintained.
- Speed is not excessive (excessive speed for this guideline is considered as speed above the design speed, above which the operator is not in adequate control of the vehicle, or speed above which the unit could not be brought to a safe stop given a single failure in the driveline).
- Vehicle loads are within the limits of the equipment.

2. Grades in excess of 18% (grades exceeding road grades listed in the Ministry of Forests' Forest Road Engineering Guidebook):

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

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

Specifications regarding the road surface condition;

- Vehicle speed
- Length of pitch
- Road relief
- Curve radius
- Comments on specific terrain hazards to negotiate

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

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

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

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