

## AVALANCHES

Whether you are driving on major highways, exploring the backcountry, or working in the mountains, avalanches are naturally occurring hazards that affect many British Columbians. BC's mountains are home to some of the most impressive avalanche-producing terrain globally; however, not all avalanches occur in the mountains. Avalanches are possible even on short hills with a pitch as low as 25 degrees – including natural and mechanically-altered landscapes.

The mining industry is no stranger to the dangers of avalanches; whether drilling, constructing or mining, if you are working in avalanche terrain, workers are at risk. For example, in 1965, at a mine in Stewart, BC, a large avalanche killed 25 workers. In 2012, at another mining project near Stewart, BC, two survey technicians were caught in an avalanche, killing one of the two workers. These two notable incidents highlight the significant risks that avalanches pose to mine workers. More recently, a worker survived after being buried entirely when a small avalanche let go on the side of a road-cut, trapping the worker at the bottom of the hill against a berm.



In July 2021, a new section in the *Health, Safety and Reclamation Code for Mines in British Columbia* (Code) for avalanche safety – section 3.3.6 Avalanche Safety – came into force. Mine managers are responsible for protecting their workers; this includes assessing terrain to determine if there is a risk of an avalanche and, if applicable, developing an avalanche safety program to mitigate the risk of avalanches.

### Avalanche Safety Overview

*Note: This is a simplified overview of a mine manager's responsibilities; see section 3.3.6 for the complete list of requirements.*

1. **Risk Assessment** – Conduct a written risk assessment for areas where workers may be exposed to avalanches.
2. **Avalanche Safety Program** – If avalanche risk is determined through the risk assessment, no work may be conducted in the area of avalanche risk until a qualified person develops an avalanche safety program.
3. **Measures & Procedures** – If eliminating avalanche risk is not practical, the safety program must include measures and procedures to minimize risks, for example, monitoring weather and conditions, etc.
4. **Mine Emergency Response Plan (MERP)** – The avalanche safety program must be integrated with the MERP.

### Canadian Avalanche Safety Resources

- [Avalanche Canada](#)
- [Canadian Avalanche Association](#)
  - *Technical Aspects of Snow Avalanche Risk Management – Resources and Guidelines for Avalanche Practitioners in Canada (2016)*
  - *Land Managers Guide to Snow Avalanche Hazards in Canada (2002)*
- [Avalanche Safety Program - Province of British Columbia \(gov.bc.ca\)\(MoTI\)](#)

