



Assessing Risk in Mining Operations

Risk assessment and management for mines and mining plants

From helping your team understand the steps involved in the risk management process to providing customized facilitated workshops, Workplace Safety North (WSN) is your trusted health and safety advisor. WSN has the hazard and sector expertise to help you achieve your

health and safety goals. No matter where you are on your health and safety journey, WSN can help your organization. An effectively designed and implemented risk management program is foundational to ensuring every worker goes home safe and healthy.

Background

Since 2012, the Ministry of Labour, Immigration, Training and Skills Development (the Ministry) has undertaken a number of initiatives to promote the use of risk assessment and management to help make Ontario workplaces safer.

Legal requirements

In January 2017, the Ministry released a risk assessment guideline for mines and mining plants in accordance with amendments to sections 5.1, 5.2, and 5.3 of Regulation 854 Mines and Mining Plants of the Occupational Health and Safety Act.

It is the employer's responsibility to ensure they are complying with the risk assessment requirements set out by the Ministry (see details on page two).

Resources and information

Free resources are available for download, including a Risk Management Gap Assessment Tool and Mining Sector Risk Assessments and Root Cause Analyses research results for:

- Mining Underground
- Battery Electric Vehicles
- Surface Diamond Drilling
- Mining Surface
- Ground Control
- Mobile Equipment
- Water Management

Once hazards have been identified and assessed, employers can manage risks by applying the most effective control whenever possible.

Training

Risk Assessment Course: Participants are taught the fundamentals of risk assessment through this introductory course.

Consulting

Tailored solutions include but are not limited to:

- Operationalize Risk Management Process
- Risk Assessment and Root Cause Analysis Workshop Facilitation
- Develop In-House Risk Management Skills

For more information, contact your local WSN Health and Safety Specialist.



Scan to view Risk Management resources (<https://www.workplacesafetynorth.ca/en/news-resources/popular-topics/risk-management>)

What the law says

Mining health and safety risk assessment legislation

In response to the mining review recommendation, the Ministry introduced the following three new sections in Regulation 854 Regulation for Mines and Mining Plants under the Ontario Occupational Health and Safety Act:

5.1 (1) An **employer shall conduct a risk assessment** of the workplace for the purpose of identifying, assessing and managing hazards, and potential hazards, that may expose a worker to injury or illness.

(2) A risk assessment must take into consideration the nature of the workplace, the type of work, the conditions of work at that workplace and the conditions of work common at similar workplaces.

(3) The **results of an assessment must be provided, in writing**, to the joint health and safety committee or the health and safety representative, if any.

(4) If no joint health and safety committee or health and safety representative is required at the workplace, the **results of an assessment must be communicated to workers** at the workplace and provided, in writing, to any worker at the workplace who requests them.

(5) The requirement in subsection (1) to conduct a risk assessment is in addition to any specific assessments required by the Act or any Regulation made under it.

5.2 (1) An employer shall, in consultation with the joint health and safety committee or the health and safety representative, if any, **develop and maintain measures to eliminate**, where practicable, or to control, where the elimination is impracticable, the **hazards, and potential hazards, identified in a risk assessment** conducted under subsection 5.1 (1).

(2) The **measures** referred to in subsection (1) **shall be put in writing** and shall include each of the following, as applicable and reasonable in the circumstances:

1. Substitution or reduction of a material, thing or process
2. Engineering controls
3. Work practices
4. Industrial hygiene practices
5. Administrative controls
6. Personal protective equipment

(3) Personal protective equipment shall only be used as a measure if the measures referred to in paragraphs 1 to 5 of subsection (2) are not obtainable, are impracticable or do not eliminate or fully control hazards and potential hazards.

5.3 (1) The **risk assessment required** by section 5.1 **must be reviewed as often as necessary and at least annually**.

(2) When conducting the review, the employer shall ensure that,
(a) **New hazards or new potential hazards are assessed**

(b) **Existing hazards or potential hazards that have changed are re-assessed**; and

(c) The **measures** required by section 5.2 continue to **effectively protect the health and safety of workers**.

(3) Subsections 5.1 (3) and (4) and section 5.2 apply with necessary modifications in respect of any new hazards and potential hazards and any existing hazards or potential hazards that have changed.

To meet legal requirements and best practices, next steps include:

1. Review the WSN Guidance Resource: “Risk Management Overview and Gap Assessment Tool” and complete the Gap Assessment fillable PDF form
2. Address all identified legislative gaps
3. Address all other identified gaps related to Ministry guidelines