

Ministry of Labour, Training and Skills Development

Ministry of Labour, Training and Skills Development (MLTSD) Overview 2021 Mining Regulatory Consultation

Presentation: Mines Diesel Emissions Conference 2021
Ministry of Labour Training and Skills Development
Mining Program

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November 30, 2021

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MDEC 2021 MLTSD Public Consultation

Purpose

- Provide an overview of the province's Regulatory Development Process
- Describe where regulatory proposals come from and who develops them
- Describe the consultation and decision-making processes involved

Describe the typical six phases of regulatory development:

- Pre-consultation
- Consultation with stakeholders
- Regulatory Development
- Cabinet Consideration
- Signing, Filing, Publication
- Implementation

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Where do ideas for regulatory initiatives or change come from?

- Stakeholder comments
- Coroner's jury recommendations
- Government commitments or initiatives (e.g. Open for Business)
- Advisory committees made under Section 21 of the Occupational Health and Safety Act (OHSA)
- MLTSD agencies, boards and commissions
- MLTSD enforcement experience
- Occupational Health and Safety system partners
- Other (e.g., Mining Health, Safety and Prevention Review)

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- Consultation with stakeholders may occur at various stages throughout the regulatory development process
- Here are a few ways the Ministry of Labour, Training and Skills Development may consult or communicate with stakeholders about proposed regulatory initiatives:
 - Section 21 committees under the OHSA for mining but also dependent on the sector or activity. (e.g. industrial, construction and health care)
 - Regulatory Registry - all regulatory proposals that affect business (from any ministry) are posted centrally on the Regulatory Registry for a minimum of 45 business days so that businesses are aware of the government's plans and can participate by providing feedback on the proposals
 - Notices posted on the Ministry of Labour, Training and Skills Development website
 - Face-to-face meetings or roundtables
 - E-mail blasts/notification

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Who develops regulatory proposals?

- The Ministry of Labour, Training and Skills Development's Health, Safety and Insurance Policy Branch (HSIPB) leads the development of regulations (e.g. the mining regulation, industrial regulations etc.) relating to occupational health and safety and workplace insurance.
- HSIPB works with other MLTSD branches (e.g. Operations, Mining Program), Prevention, Legal Services) to develop proposed regulations.
- The Office of Legislative Counsel is responsible for drafting regulations into accurate, effective legal language.

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Cabinet Consideration and Decision-Making

- Once the ministry settles on drafting and the Minister has approved the proposed regulation, the Office of Legislative Counsel is instructed to prepare an official "black-cornered" regulation to recommend to Cabinet, which is signed by the Minister.
- The black cornered regulation is reviewed by the Legislative and Regulations Committee of Cabinet (LRC). The LRC can approve or reject the regulation or send it back to the ministry for further development.
- A draft regulation must be approved by the LRC before it is presented to Cabinet.
- If LRC approves the regulation it is presented to the Cabinet, which similarly, can approve, reject or require that further work be done.

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Signing, Filing and Publication

- If Cabinet approves the regulation, it must be signed by the Lieutenant Governor in Council before the regulation is considered to have been 'made' (this is the regulatory equivalent of a statute being 'enacted').
- A regulation must be filed with the Registrar of Regulations (within the Office of Legislative Counsel) within four months of the date on which it was made. A regulation has no legal effect until it is filed.
- The final step after filing is publication of the regulation. While a filed regulation forms part of the law, it must be properly published on e-Laws or in the Ontario Gazette before it is enforceable.

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Effective Dates

- Each new or amended provision of a regulation will have a specific date on which it comes into "force" or "effect".
- A regulation can come into force immediately on filing or it may come into force on some specified date in the future to allow stakeholders time to come into compliance with a new or change requirement.
- Generally, all requirements that affect business come into effect twice a year on January 1st and July 1st.
- These two routine effective dates make it easier for stakeholders to track and plan for regulatory requirements that may impact them.

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Mining Health and Safety Regulatory Amendment Proposal

Introduction

- The Ministry of Labour, Training and Skills Development (MLTSD) is proposing to amend various requirements that apply to mines and mining plants under the Occupational Health and Safety Act. The proposed changes would increase flexibility, better reflect current technology and reduce regulatory burden, while maintaining or improving worker health and safety.

Background

- Regulation 854 (Mines and Mining Plants) under the OHS Act generally applies to all mines and mining plants and to mining development in Ontario.
- Due to the serious and, in some cases, unique hazards faced by workers in the mining sector, the regulation sets out sector-specific requirements that protect the health and safety of workers at Ontario mines and mining plants.

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Mining Health and Safety Regulatory Amendment Proposal

- Most of these proposals are the result of consensus-based recommendations made by the Mining Legislative Review Committee (MLRC). The MLRC is established under Section 21 of the OHS Act to advise the Minister about occupational health and safety issues related specifically to the mining sector.
- The MLRC is comprised of both labour and management representatives from the mining industry. As part of its mandate, the MLRC and its subcommittees review Regulation 854 and recommends potential amendments on an on-going, as-needed basis.
- In a few instances, the MLRC has not yet reached consensus on some of the contents of the proposals outlined in this paper.
- The ministry continues to work on developing these proposals further in consultation with the MLRC. The feedback received during this consultation will be used to help the ministry facilitate continued discussions with the MLRC and finalize recommendations about these proposals.

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Ministry of Labour, Training and Skills Development

Mining Health and Safety Regulatory Amendment Proposal

Summary of the Proposal

The Ministry of Labour, Training and Skills Development is proposing various amendments to Regulation 854 (Mines and Mining Plants) under the Occupational Health and Safety Act (OHSA). If approved, the proposed amendments would:

- Amend ventilation requirements, including those that apply where diesel-powered equipment is operating, to increase flexibility, reflect current technology and reduce regulatory burden while maintaining or strengthening worker health and safety protections from related hazards.
- Implement several recommendations from the final report of the Mining Health, Safety and Prevention Review, including those relating to management of change, airborne hazard management, as well as ground control and seismic monitoring.

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Mining Health and Safety Regulatory Amendment Proposal

Summary of the Proposal

- Add specific requirements for independently powered conveyances and allow for more flexible and less burdensome testing requirements where that equipment is used for emergencies only.
- Implement several recent recommendations from Coroner's Juries, including proposed provisions requiring the recording of unremedied dangers by supervisors, visual switch indicators on rail tracks, and dissipating stored energy before work is done on machines.
- Amend provisions dealing with certain equipment related to mine hoists to increase flexibility and reflect current technology, including safety catches and devices that measure the drive motor load on hoists.

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Mining Health and Safety Regulatory Amendment Proposal

Summary of the Proposal

- Allow for the use of electronic devices to conduct examinations in a raise where drilling and blasting is taking place.
- Strengthen, clarify and update explosives security and storage requirements.
- Clarify existing requirements for ladderways on surface.
- Clarify requirements for eye wash facilities and emergency showers and harmonize them with similar requirements in Regulation 851 (Industrial Establishments).
- Revoke several provisions that are redundant or duplicative with other requirements, thereby reducing regulatory burden.
- Update various references to industry standards to keep them up-to-date.
- Amend various provisions to update terminology and/or clarify requirements.

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Mining Health and Safety Regulatory Amendment Proposal

Details of Proposed Regulatory Amendments

Ventilation and Diesel-Powered Equipment

A) Diesel-Powered Equipment Provisions (current Sections 182, 183 and 183.2)

Update references to the CSA Standard M424.2 "Non-Rail-Bound Diesel-Powered Machines for use in Non-Gassy Underground Mines" to the 2016 version and remove the existing exemptions from certain sections (currently in Section 182) so that the entire standard would apply to Non-Rail-Bound Diesel-Powered Equipment first used underground after June 1, 1995.

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Mining Health and Safety Regulatory Amendment Proposal

Replace the current requirement in subsection 182(1) to complete a prescribed form from the ministry and instead require that records of diesel-powered equipment be kept by the mine detailing information such as:

- the make, model and serial number of the equipment and of any emission control devices used with the equipment;
- the rated power, rated RPM, maximum fuel injection rate and certified ventilation rate; and
- the capacity of the fuel tank(s) and hydraulic fluid tank(s).

While the form would no longer be required in the regulation, the existing diesel equipment form would still be available as a resource to satisfy this requirement if mines wanted to use the document.

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Mining Health and Safety Regulatory Amendment Proposal

Replace the existing requirement in section 183 to complete a chart of procedures, with a requirement that employers at underground mines keep and maintain the following information relating to diesel-powered equipment used:

- the volume of air flowing in the underground haulageways and workings where the equipment is operating; and
- the total ventilation requirements for the equipment when it is operating in a single continuous course of air.

The information would need to be provided directly to the operators of the diesel-powered equipment or otherwise made available in a readily accessible format in the workplace.

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Mining Health and Safety Regulatory Amendment Proposal

Replace the current requirement under subsection 182(4) that diesel fuel meet Canadian General Standards Board National Standard of Canada CAN/CGSB 3.517-2013 "Diesel Fuel" with a performance-based requirement that diesel fuel used in equipment underground must have a flash point of 52°C or higher and a fuel density of 820 to 840 kg/m³.

Clarify existing testing requirement for diesel-powered equipment, and add a requirement that an employer test the undiluted exhaust discharging from diesel-powered equipment into the atmosphere to ensure that it contains less than either 50 or 60 parts per million by volume of nitrogen dioxide in addition to the existing requirement that it contain less than 600 parts per million by volume of carbon monoxide.

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Mining Health and Safety Regulatory Amendment Proposal

Question asked during the consultation period;

There is currently no consensus about whether the threshold for the tail pipe test should be 50 parts per million by volume or 60 parts per million by volume.

In your view, what should the threshold for this equipment test be and what would be the implications for your operation in either case?

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Mining Health and Safety Regulatory Amendment Proposal

B) Air Flow Requirements for Diesel-Powered Equipment (current Section 183.1)

Replace the current air flow requirements in Section 183.1 with a new approach that would require that employers ensure a mechanical ventilation system produces a flow of air in accordance with the following rules:

- For equipment certified in accordance with CSA Standard M424.2-16, the flow of air would need to be at least equal to the recommended ventilation rate as appears on the certificate of homologation provided by Canmet Mining, Natural Resources Canada.
- For equipment that is not certified in accordance with the CSA Standard, the flow of air would need to be at least 0.06 cubic metres per second (known as the 100cfm rule) for each kilowatt of power of the equipment, as is currently required.

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For a piece of equipment that has been subsequently modified with a diesel particulate filter or similar after-treatment device, but has not been certified or recertified in accordance with the CSA Standard, the employer shall determine a suitable flow of air, in consultation with the joint health and safety committee or health and safety representative, if any, based on:

- the applicable rates for the equipment prior to modification, good engineering practice, and
- the results of testing performed on the equipment, including emission levels produced by the equipment after the installation of a diesel particulate filter or similar after-treatment device.

The information, testing results and calculations used to determine flow of air under this rule would need to be kept readily available at the mine site for review and inspection.

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Mining Health and Safety Regulatory Amendment Proposal

Where more than one piece of diesel-powered equipment is operating in a single continuous course of air in an underground mine, the flow of air must be at least equal to the cumulative ventilation rates as determined under the proposed new rules for each piece of equipment.

A diesel particulate filter or after-treatment device referred to under the new provision would need to be maintained in accordance with the manufacturer's recommendations.

The employer would also need to ensure that each piece of diesel-powered equipment has the flow of air posted in a location on the equipment that is visible to and readable by the operator.

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C) Occupational Exposure Limit for Elemental Carbon (current Section 183.1)

Replace the current exposure limit set out in subsection 183.1(5), which is based on not exceeding 0.4 milligrams per cubic metre of air for total carbon, with a requirement that, where diesel-powered equipment is operating, the time-weighted average exposure of a worker to elemental carbon shall not be more than 0.12 milligrams per cubic metre of air.

This proposed limit is based on a 2018 consultation regarding adopting a general occupational exposure limit for total carbon of 0.16 milligrams per cubic metres of air in Regulation 833 (Control of Exposure to Biological and Chemical Agents).

Question asked during the consultation;

In your view what is your opinion on proposed limit for elemental carbon of 0.12 milligrams per cubic metres of air?

Do you agree with the limit? Should it be lowered – either now or in the future? What would be the implications to your operation in either case?

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Mining Health and Safety Regulatory Amendment Proposal

D) General Ventilation Requirements (current Sections 252, 253, 254, and 286)

Replace existing Sections 252, 253, and 254 which set out general ventilation requirements with a streamlined provision that would apply to ventilation systems in mining plant buildings and underground mines.

Retain the current requirement to provide an oxygen content in the atmosphere of at least 19.5 per cent and the proposed section would clarify functional aspects of the ventilation system;

- including that it must clear workplaces of contaminants after a blast, and that it is not recirculated contaminated air,
- that it be independent of air supplied to a drill or machine, and that it be initiated prior to workers entering a workplace.

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- that it be independent of air supplied to a drill or machine, and that it be initiated prior to workers entering a workplace.
- The existing requirements for plans and records, currently set out in sections 252 and 253 would be retained, although they would be slightly revised for clarity.

Revoke existing requirements in section 286 make up air supply, which would now be addressed under the new general ventilation requirements.

Remove the cross-references to Regulation 833 (Control of Exposure to Chemical and Biological Agents) from several provisions. The requirements of that regulation, including occupational exposure limits and the hierarchy of controls for biological and chemical agents, would continue to apply in mines and mining plants.

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Mining Health and Safety Regulatory Amendment Proposal

E) New Procedure to Manage Heat and Miscellaneous Amendments

Add a new provision requiring that mine or mining plants, in consultation with the joint health and safety committee or health and safety representative, if any, develop and maintain a procedure for managing the heat/temperature in the workplace to protect the health and safety of workers.

Clarify the wording in Section 184 (exhaust from internal combustion engines), Section 255 (unventilated areas) and Section 261 (battery charging stations) to make them easier to understand without changing the substantive requirements.

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Mining Health and Safety Regulatory Amendment Proposal

Airborne Hazard Management Program

The following proposal is a consensus-based recommendation by the MLRC. The proposal, if approved, would implement one of the recommendations from the Mining Health, Safety and Prevention Review's final report.

- Add a requirement for employers at mines and mining plants to develop and maintain an airborne hazard management program in consultation with the joint health and safety committee or health and safety representative, if any, similar to existing program requirements for water management (Section 87.1) and traffic management (Section 105.1).

The airborne hazard management program would need to:

- set out the airborne hazards and potential airborne hazards that have been identified and assessed as part of the workplace risk assessment required under Section 5.1;

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- list the measures that have been developed to eliminate and control the airborne hazards or potential airborne hazards as required under Section 5.2;
- set out the number, frequency and locations of testing, monitoring or sampling;
- identify the persons responsible for implementing the program, including any testing, monitoring or sampling required and set out training and instruction that must be completed by them; and
- include measures and procedures to be used to,
 - monitor the effectiveness of and measure the performance of those controls; and
 - maintain control systems and all of the components of such systems.

The airborne hazard management program would need to be reviewed at least annually, or as soon as possible after changes have been made to:

- mining processes, work methods or to the ventilation system that result in new airborne hazards or changes to existing airborne hazards; or

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- the biological or chemical substances in the workplace that affect airborne hazards.
- A copy of the airborne hazard management program would need to be provided to the joint health and safety committee or health and safety representative, if any.
- A worker would need to be provided with information and instruction on the contents of the airborne hazard management program that is appropriate for the worker.

3. Management of Change

The following proposal is the result of a consensus-based recommendation by the MLRC. The proposal, if approved, would implement one of the recommendations from the Mining Health, Safety and Prevention Review's final report.

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- Replace the current subsections 5 (1), (2) and (2.1) with a requirement that the owner of a mine or mining plant ensure that a written management of change procedure has been developed before proceeding with:
 - the construction or design of a mine or mining plant, or of a major structure or system at the mine or mining plant;
 - the introduction or use of a new mining technique, method, technology, process or equipment; or
 - a major addition or alteration to any item mentioned above.

The management of change procedure would need to set out how,

- the hazards or potential hazards associated with the changes will be evaluated and reviewed to ensure the protection of worker health and safety;
- the joint health and safety committee or health and safety representative, if any, will be notified of the proposed changes, and
- the changes will be authorized, and how that authorization will be communicated to workers, prior to implementation.

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The intent is to maintain the current role of the professional engineer in preparing necessary documentation, as appropriate, but would also recognize potential involvement of other experts or workplace parties (e.g. hygienists, equipment specialists, management system specialists, assigned operations and maintenance personnel and/or Joint Health and Safety Committee members or Health and Safety Representatives) depending on the nature of the change.

Any relevant drawings, plans and specifications, including those prepared or checked by a professional engineer, would need to be kept readily available at the mine site for review during inspections by the ministry.

The proposal would not substantively change the existing notification requirements currently set out in subsection 5(3) requiring a review a risk assessment annually or in certain circumstances (e.g. new hazards or potential new hazards, changes to the hazards) to ensure workers remain protected.

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Next steps;

The public consultation was open for comment between July 28 and September 15, 2021. Although the consultation is now officially closed, more information can still be found on [Ontario's Regulatory Registry](#). The MLTSD is currently analyzing feedback from stakeholders and continuing to work on the development of proposed amendments.

Questions?