

Draft Regulation

Act respecting occupational health and safety
(chapter S-2.1)

Occupational health and safety in mines — Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting occupational health and safety in mines, appearing below, may be made by the Commission des normes, de l'équité, de la santé et de la sécurité du travail and submitted to the Government for approval, in accordance with section 224 of the Act respecting occupational health and safety (chapter S-2.1), on the expiry of 45 days following this publication.

The draft Regulation integrates more recent standards relating to certain personal protective equipment against falls from a height, consistent with the Regulation respecting occupational health and safety (chapter S-2.1, r. 13). It also provides for two new modules in the modular course for miners to reduce the risk of accidents during work relating to a shaft, amends work methods when drilling is carried out on a working face using a remote control device and adds a requirement for employers to adopt a ground control program that is adapted to the characteristics of an underground mine. The draft Regulation also amends safety requirements for every type of vehicle used by workers in a mine, and not only for vehicles used to transport workers.

Study of the draft Regulation shows an economic impact of \$1,159,300 applicable only to underground mines when the regulatory amendments to the modular course for miners and the ground control program come into force. There is also an estimated annual cost of \$143,500 in subsequent years for the modular course for miners. The other amendments have no financial impact on the enterprises of Québec.

Further information on the draft Regulation may be obtained by contacting Félix-Antoine Blanchard, engineer/expert advisor – mines, Direction du génie-conseil, Direction générale de la gouvernance et du conseil stratégique en prévention, Commission des normes, de l'équité, de la santé et de la sécurité du travail, 1600, avenue D'Estimauville, Québec (Québec) G1J 0H7; telephone: 418 266-4699, extension 2031; email: felix-antoine.blanchard@cnesst.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Luc Castonguay, Vice-President for Prevention,

Commission des normes, de l'équité, de la santé et de la sécurité du travail, 1600, avenue D'Estimauville, Québec (Québec) G1J 0H7.

LOUISE OTIS
*Chair of the board of directors,
Commission des normes, de l'équité,
de la santé et de la sécurité du travail*

Regulation to amend the Regulation respecting occupational health and safety in mines

Act respecting occupational health and safety
(chapter S-2.1, s. 223, 1st par., subpars. 7, 9,
19 and 42, and 3rd par.)

1. The Regulation respecting occupational health and safety in mines (chapter S-2.1, r. 14) is amended by replacing the words “the Commission scolaire” wherever they appear by the words “the Centre de services scolaire”.

2. Section 4.1 is revoked.

3. Sections 5 to 7 are replaced by the following:

“**5.** Full body harnesses must comply with CAN/CSA Standard Z259.10, Full body harnesses, and be connected by a fall-protection system to an anchorage system, in accordance with sections 6 to 7.01. This assembly must limit the maximum fall arrest force to 6 kN or the free fall distance to 1.8 m.

5.1. Where a worker is equipped with a safety belt, it can be used only to limit the movement of the worker, to keep the worker in a working position or for mine rescue operations.

Such a belt must comply with CAN/CSA Standard Z259.1, Body belts and saddles for work positioning and travel restraint.

A safety belt may not be used as individual protective equipment to stop the fall of a worker.

6. The fall arrest connecting device must be composed of one or more of the following equipment, including at least the equipment provided for in paragraph 1 or 2:

(1) a shock absorber and a lanyard complying with CAN/CSA Standard Z259.11, Shock absorbers and lanyards. The lanyard, including the shock absorber, must have a maximum length of 2 m;

(2) a self-retracting lifeline complying with CAN/CSA Standard Z259.2.2, Self-retracting devices;

(3) a rope grab complying with CSA Standard Z259.2.5, Fall arresters and vertical lifelines, or CSA Standard Z259.2.4, Fall arresters and vertical rigid rails;

(4) a vertical lifeline complying with CSA Standard Z259.2.5, Fall arresters and vertical lifelines, or CSA Standard Z259.2.4, Fall arresters and vertical rigid rails, which must never be directly in contact with a sharp edge and must

(a) be used by only 1 person;

(b) be less than 90 m in length;

(c) be free of defects, knots and splices, except at the terminations of the lifeline;

(5) a connecting component, such as a spring hook, D-ring or snap hook in compliance with CAN/CSA Standard Z259.12, Connecting components for personal fall arrest systems.

7. The fall arrest connecting device of a full body harness must be secured to one of the following anchorage systems:

(1) a single point of anchorage with one of the following characteristics:

(a) have a breaking strength of at least 18 kN;

(b) be designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.16, Design of active fall-protection systems, and

i. have a strength equal to twice the maximum arrest force as certified by an engineer; or

ii. be certified in accordance with EN Standard 795, Personal protective equipment against falls - Anchor devices, published by the European Committee for Standardization or with CAN/CSA Standard Z259.15, Anchorage connectors;

(2) a flexible continuous anchorage system (horizontal lifeline) with one of the following characteristics:

(a) be in compliance with the following minimum standards:

i. have a steel cable of a minimum diameter of 12 mm slackened to a minimum angle of 1 vertical to 12 horizontal, or 5° from horizontal;

ii. have a maximum distance of 12 m between the end anchors;

iii. have end anchors with a breaking strength of at least 90 kN;

(b) be designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.13, Flexible horizontal lifeline systems, and CSA Standard Z259.16, Design of active fall-protection systems;

(3) a rigid continuous anchorage system designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.16, Design of active fall-protection systems.

The flexible continuous anchorage system complying with subparagraph *a* of subparagraph 2 of the first paragraph may not be used by more than 2 workers simultaneously.

The anchorage system having the characteristics described in subparagraphs *b* of subparagraphs 1 and 2 of the first paragraph and the anchorage system referred to in subparagraph 3 of the first paragraph must, before it is first brought into service, be inspected and tested by an engineer or a qualified person acting under the supervision of an engineer, to ensure that the system is in compliance with the design and installation plans.”.

4. The following is added after section 7:

“**7.01.** The anchorage system

(1) must be designed so that the D-ring of the suspension point of a worker's full body harness cannot be moved horizontally by more than 3 m or an angle of 22°; and

(2) must be designed so that properly attached personal protective equipment cannot be detached involuntarily.

The anchorage system cannot be used by more than 1 person at a time, except in the case of a continuous anchorage system, such as a horizontal lifeline, or a rigid anchorage system, such as a rail.

The structure on which the anchorage system is installed must be able to withstand the effort exerted by the anchorage system in addition to the other efforts that it must ordinarily withstand.”.

5. Section 7.1 is amended

(1) by replacing “and 7” by “, 7 and 7.01”;

(2) by replacing “the fastening point of the lanyard and the vertical lifeline” by “the fall arrest connecting device and the anchorage system”.

6. Section 27.1 is amended

- (1) in the first paragraph
 - (a) by striking out “Within 6 months after 9 April 2009,”;
 - (b) by replacing “I, II, III, IV, V and VII” in subparagraph 1, by “1, 2, 3, 4, 5 and 7”;
- (2) in the second paragraph
 - (a) by striking out “The conditions prescribed in subparagraphs 1 and 2 of the first paragraph shall apply to a person who is hired after the expiry of the 6-month period provided for in the first paragraph; notwithstanding the preceding,”;
 - (b) by replacing “I, II and III” and “IV, V and VII” respectively by “1, 2 and 3” and “4, 5 and 7”;
- (3) by replacing “I” in the third paragraph by “1, 2, 3, 4, 5 and 7”;
- (4) by replacing “I” in the fifth paragraph by “1”.

7. Section 27.2 is amended

- (1) in the first paragraph
 - (a) by striking out “Within 12 months after 23 March 2006,”;
 - (b) by replacing “VI” in subparagraph 1 by “6”;
- (2) by striking out “The conditions prescribed in subparagraphs 1 and 2 of the first paragraph also apply to a person hired after the expiry of the 12-month period provided for in the first paragraph;” in the second paragraph;
- (3) in the third paragraph
 - (a) by striking out “in accordance with Modules I, II and III” and “in section 27.1”;
 - (b) by inserting “in the first paragraph” after “as provided”;
- (4) by replacing “I” in the fourth paragraph by “1”.

8. Section 27.3 is amended

- (1) by striking out “Within 12 months after 11 July 2013,” in the first paragraph;
- (2) by striking out the second paragraph;

(3) by replacing “in the first and second paragraphs” in the last paragraph by “in the first paragraph”;

(4) by adding the following paragraph at the end:

“The person who uses a slusher, pneumatic loader or scooptram for the purposes of an inspection, a test or maintenance work is exempt from the conditions prescribed in the first paragraph.”

9. Section 27.4 is amended by striking out the third paragraph.**10.** The following is inserted after section 27.5:

27.6. Every person who issues signals using a signal system provided for in section 263 must

(1) have undergone training in occupational health and safety in accordance with Module 13 of the modular course for miners published by the Centre de services scolaire de l’Or-et-des-Bois; and

(2) hold an attestation to that effect issued by the Centre de services scolaire de l’Or-et-des-Bois.

27.7. Every person who constructs, inspects, rehabilitates or repairs a shaft in a mine or carries out work therein must

(1) have undergone training in occupational health and safety in accordance with Module 14 of the modular course for miners published by the Centre de services scolaire de l’Or-et-des-Bois; and

(2) hold an attestation to that effect issued by the Centre de services scolaire de l’Or-et-des-Bois.

The person who occasionally works in a shaft is exempt from the conditions prescribed in the first paragraph; however, that person must be accompanied by a person referred to therein.”

11. The following is added after section 28.03:

28.04. The employer must adopt a ground control program that is adapted to the characteristics of an underground mine and ensure its application. The program addresses in particular

(1) the characterization of the rock;

(2) the design of the ground support system;

(3) the preparation of the excavation plans and specifications by an engineer in accordance with the sections of this subsection, consultations, approval, review and follow-ups;

(4) the methods ensuring the communication of information, such as the register provided for in section 28.03, as well as the training required to ensure safety;

(5) the roles and responsibilities of the employer's representatives and workers;

(6) the periodic verification of the efficiency of the program;

(7) the annual assessment of the application of the program; and

(8) the annual updating of the program.

The ground control program must be easily accessible for consultation by the health and safety committee and the safety representative.”.

12. Section 75.13 is amended

(1) by replacing “CAN/CSA Standard Z259.10-M90” by “CAN/CSA Standard Z259.10”;

(2) by replacing “CSA Standard Z259.16-15” by “CSA Standard Z259.16”.

13. The following is inserted after section 179:

“**179.1.** Every motorized vehicle must be easily and safely accessible by means of a step, grip handles or ladder.”.

14. Section 196 is amended by striking out subparagraph 1 of the first paragraph.

15. Section 207 is amended by striking out “during scaling, drilling, timbering or loading explosives”.

16. Section 208 is revoked.

17. Section 264 is amended

(1) by replacing “Only authorized workers” in the first paragraph by “Only persons who underwent the training mentioned in section 27.6 and who are authorized by the employer who has authority over the establishment”;

(2) by replacing “workers mentioned” in the second paragraph by “persons referred to”;

(3) by striking out the last paragraph.

18. Section 394 is amended

(1) by replacing the first paragraph by the following:

“The wearing of a full body harness complying with CAN/CSA Standard Z259.10, Full body harnesses, and the use of a lanyard connected to the hoisting rope complying with CAN/CSA Standard Z259.11, Energy absorbers and lanyards, are compulsory for any worker on the roof of a moving conveyance.”;

(2) by replacing “6” in the last paragraph by “7”.

19. Section 401.1 is amended in the second paragraph

(1) by inserting “complying with CAN/CSA Standard Z259.2.2, Self-retracting devices,” after “line” in subparagraph *b* of subparagraph 1;

(2) in subparagraph 7

(a) by striking out “Group AD or AP”;

(b) by replacing “CAN/CSA Standard Z259.10-M90, Full body harnesses” by “CAN/CSA Standard Z259.10, Full body harnesses”;

(3) by replacing the term “CSA Standard Z259.2-M1979, Fall-arresting devices, personnel lowering devices and life lines” wherever it appears by the term “CSA Standard Z259.2.5, Fall-arresting devices and vertical lifelines, or CSA Standard Z259.2.4, Fall arresters and vertical rigid rails”.

20. Section 437 is amended by adding the following paragraph at the end:

“The first paragraph does not apply where the drilling is carried out by a remote control device, under supervision, and the blasting area is evacuated.”.

21. Section 440 is amended by replacing “drilling” wherever it appears by “blasting”.

22. Section 443 is amended by replacing “drilling” wherever it appears in the second paragraph by “blasting”.

23. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*, except section 10, which comes into force on (*insert the date occurring 1 year after the date of coming into force of this Regulation*).

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