

Manitoba Workplace Safety and Health Act and Operation of Mines Regulation

2014

NOTICE

All persons making use of this consolidation are reminded that it has no legislative sanction; that the amendments have been embodied only for convenience of reference; and that the original text should be consulted for all purposes of interpreting and applying the law.



CHAPTER W210

10/02

The Workplace Safety And Health Act

NOTICE

All persons making use of this consolidation are reminded that it has no legislative sanction; that the amendments have been embodied only for convenience of reference; and that the original text should be consulted for all purposes of interpreting and applying the law.



Section

DEFINITIONS

- 1 Definitions

INTRODUCTORY PROVISIONS

- 2 Purposes of Act
- 3 Application of Act

DUTIES

- 4 Duties of employers
 - 4.1 Duties of supervisors
- 5 Duties of workers
- 6 Duties of self-employed persons
- 7 Duties of prime contractor
 - 7.1 Duties of contractors
 - 7.2 Duties of owners
 - 7.3 Duties of suppliers
 - 7.4 Workplace safety and health program
 - 7.5 Duty to provide required information
 - 7.6 Persons with multiple functions
 - 7.7 Responsibility if duties apply to more than one person

RELATIONSHIP OF THIS ACT TO *THE WORKERS COMPENSATION ACT*

- 8 Effect on compensation
- 9 Effect on liabilities under *Workers Compensation Act*
- 10 Renumbered as subsection 14
- 11 Renumbered as subsection 14(5)

DUTIES AND POWERS OF THE DIRECTOR AND MINISTER

- 12 Duties of director
- 13 Powers of director
 - 13.1 Public reporting of orders and penalties
- 14 Duties and powers of the minister

ADVISORY COUNCIL

- 15 Advisory council
- 16 Meetings and jurisdiction of council

CHIEF OCCUPATIONAL MEDICAL OFFICER

- 17 Chief occupational medical officer

CHIEF PREVENTION OFFICER

- 17.1 Chief prevention officer

REGULATIONS, CODES AND STANDARDS

- 18 Regulations
- 19 Codes of practice
- 20 Failure to observe code, code as evidence
- 21 Exemption from regulation

SAFETY AND HEALTH OFFICERS

- 22 Safety and health officers
- 23 Duties of officers
- 24 Powers of officers
- 25 Powers of commissioner under Evidence Act

IMPROVEMENT ORDERS

- 26 Improvement orders
- 27 to 31 Repealed
- 32 Renumbered as section 36.3
- 33 Remedial measures
- 34 Period to comply with order
- 35 Reporting and achieving compliance

STOP WORK ORDERS

- 36 Stop work orders
- 36.1 Communication of orders
- 36.2 Communication of orders to prime contractor

APPEALS

- 37 Appeal to director
- 38 Referring an appeal to Board
- 39 Appeal to Board

WORKPLACE SAFETY AND HEALTH COMMITTEES AND REPRESENTATIVES

- 40 Workplace safety and health committee
- 41 Workplace safety and health representative
- 41.1 Employer response to recommendations
- 41.2 Information on request
- 41.3 Accompanying an officer

DISCRIMINATORY ACTION

- 42 Discriminatory action against worker prohibited
- 42.1 Referring a complaint to an officer

RIGHT TO REFUSE DANGEROUS WORK

- 43 Right to refuse dangerous work
- 43.1 Report of dangerous condition to an officer
- 43.2 Worker entitled to be paid despite refusal
- 43.3 Employer not to make worker work in unsafe conditions

EDUCATIONAL LEAVE

- 44 Educational leave
- 45 Repealed

NEEDLES IN MEDICAL WORKPLACES

- 45.1 Use of safety-engineered needles

GENERAL PROVISIONS

- 46 Obtaining information
- 46.1 Order to conduct tests
- 47 Repealed
- 48 Confidential information
- 49 Exemption from liability
- 49.1 Officials cannot be compelled to testify
- 50 Medical examinations and health surveillance
- 51 Medical and hospital reports
- 52 Director may require alternative work
- 53 Occupational health service

ADMINISTRATIVE PENALTIES

- 53.1 Administrative penalties

OFFENCES AND PENALTIES

- 54 Offences
- 55 Penalties
- 55.1 Additional penalties
- 56 Offence by corporate representative
- 57 Onus
- 58 Laying of information
- 59 Repealed

**CHAPTER W210
THE WORKPLACE SAFETY
AND HEALTH ACT**

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of Manitoba, enacts as follows:

DEFINITIONS

Definitions

1 In this Act, unless otherwise specified,

“advisory council” means the Advisory Council on workplace safety and health established under this Act; (« Conseil consultatif »)

“agency of the government” means any board, commission, association, or other body, whether incorporated or unincorporated, all the members of which, or all the members of the board of management or board directors of which,

- (a) are appointed by an Act of the Legislature or by the Lieutenant Governor in Council, or
- (b) if not so appointed, are, in the discharge of their duties, public officers or servants of the Crown, or, for the proper discharge of their duties are, directly or indirectly, responsible to the Crown; (« organisme gouvernemental »)

“Board” means The Manitoba Labour Board established under *The Labour Relations Act*; (« Commission »)

“branch” means the Workplace Safety and Health Branch; (« Direction »)

“chief occupational medical officer” means the person designated as Chief Occupational Medical Officer under this Act; (« médecin du travail en chef »)

“chief prevention officer” means the Chief Prevention Officer appointed under section 17.1; (« conseiller principal en prévention »)

“committee” means a workplace safety and health committee established under section 40; (« comité »)

“construction project” means

- (a) the construction, demolition, repair, alteration or removal of a structure, building, complex, street, road, highway, pipeline, sewage system or electrical telecommunication or transmission line,

- (b) the digging of, working in or filling a trench or excavation,
- (c) the installation, modification, repair or removal of any equipment or machinery, or
- (d) any work prescribed by regulation as a construction project; (« projet de construction »)

“construction project site” means a workplace where work is performed on a construction project; (« chantier de construction »)

“contractor” means a person who, pursuant to one or more contracts, directs the activities of one or more employers or self-employed persons involved in work at a workplace; (« entrepreneur »)

“department” means such department of the government of Manitoba as may be designated by the Lieutenant Governor in Council for the purpose of this Act; (« ministère »)

“director” means the Director of the Workplace Safety and Health Branch appointed under subsection 14(4.1); (« directeur »)

“discriminatory action” means any act or omission by an employer or any person acting under the authority of the employer or any union which adversely affects any term or condition of employment, or of membership in a union, and without restricting the generality of the foregoing includes lay-off, suspension, dismissal, loss of opportunity for promotion, demotion, transfer of duties, change of location of workplace, reduction in wages, or change in working hours but does not include the temporary relocation of a worker to other similar or equivalent work without loss of pay or benefits until a condition that threatens the safety or health of the worker is remedied; (« mesure discriminatoire »)

“employer” includes

- (a) every person who, by himself or his agent or representative employs or engages one or more workers, and
- (b) the Crown and every agency of the government; (« employeur »)

“health” means the condition of being sound in body, mind and spirit, and shall be interpreted in accordance with the objects and purposes of this Act; (« santé »)

“improvement order” means an order made under section 26; (« ordre d’amélioration »)

“minister” means the member of the Executive Council charged by the Lieutenant Governor in Council with the administration of this Act; (« ministre »)

“occupational health nurse” means a registered nurse as defined by *The Registered Nurses Act*; (« infirmière hygiéniste »)

“occupational health service” means a service organized in or near a workplace for the purposes of

- (a) protecting workers against any health hazard that may arise out of their work or the conditions under which it is carried on,
- (b) ensuring the physical and mental adjustment of workers in their employment and ensuring their assignment to jobs for which they are suited, and
- (c) contributing to the establishment and maintenance of a high degree of physical and mental well-being of the workers; (« service d’hygiène »)

“owner”, in relation to any land or premises used or to be used as a workplace, includes

- (a) a trustee, receiver, mortgagee in possession, tenant, lessee, licensee or occupier of the land or premises, and
- (b) a person who acts for or on behalf of an owner as an agent or delegate,

but does not include a person who occupies premises used as a private residence, unless that person carries on a business, profession or trade at that residence; (« propriétaire »)

“person” includes a partnership or an unincorporated association; (« personne »)

“physician” means a duly qualified medical practitioner; (« médecin »)

“prime contractor” means the prime contractor for a construction project referred to in section 7; (« entrepreneur principal »)

“representative” means a worker safety and health representative designated or appointed under section 41; (« délégué »)

“safety” means the prevention of physical injury to workers and the prevention of physical injury to other persons arising out of or in connection with activities in the workplace; (« sécurité »)

“safety and health officer” means a person designated as a safety and health officer under this Act; (« agent de sécurité et d’hygiène »)

“stop work order” means an order made under section 36; (« ordre d’arrêt du travail »)

“supervisor” means a person who has charge of a workplace or authority over a worker; (« surveillant »)

“supplier” means a person who supplies, sells, leases, installs or provides

- (a) any tool, equipment, machine or device, or
- (b) any biological substance or chemical substance,

to be used in a workplace; (« fournisseur »)

“union” means a union as defined under *The Labour Relations Act*; (« syndicat »)

“welfare” means the conditions or facilities, in or near a workplace, provided for the feeding, rest, hygiene or sanitary requirements of a worker; (« bien-être »)

“worker” includes

- (a) any person who is employed by an employer to perform a service whether for gain or reward, or hope of gain or reward or not,
- (b) any person engaged by another person to perform services, whether under a contract of employment or not
 - (i) who performs work or services for another person for compensation or reward on such terms and conditions that he is, in relation to that person, in a position of economic dependence upon that person more closely resembling the relationship of any employee than that of an independent contractor, and
 - (ii) who works or performs services in a workplace which is owned or operated by the person who engages him to perform services,
- (c) any person undergoing training or serving an apprenticeship at an educational institution or at any other place; (« travailleur »)

“worker safety and health representative” means the person designated as a worker safety and health representative under this Act; (« délégué à la sécurité et à la santé des travailleurs »)

“workplace” means any building, site, workshop, structure, mine, mobile vehicle, or any other premises or location whether indoors or outdoors in which one or more workers, or self-employed persons, are engaged in work or have worked. (« lieu de travail »)

S.M. 2002, c. 33, s. 3; S.M. 2013, c. 9, s. 2.

PURPOSE OF THIS ACT

General objects and purposes

2(1) The objects and purposes of this Act are

- (a) to secure workers and self-employed persons from risks to their safety, health and welfare arising out of, or in connection with, activities in their workplaces; and
- (b) to protect other persons from risks to their safety and health arising out of, or in connection with, activities in workplaces.

Specific objects and purposes

2(2) Without limiting the generality of subsection (1), the objects and purposes of this Act include

- (a) the promotion and maintenance of the highest degree of physical, mental and social well-being of workers;
- (b) the prevention among workers of ill health caused by their working conditions;
- (c) the protection of workers in their employment from factors promoting ill health;
- (d) the placing and maintenance of workers in an occupational environment adapted to their physiological and psychological condition; and
- (e) the promotion of workers’ rights
 - (i) to know about safety and health hazards in their workplaces,
 - (ii) to participate in safety and health activities at their workplaces,
 - (iii) to refuse dangerous work, and
 - (iv) to work without being subject to discriminatory action.

S.M. 2013, c. 9, s. 3.

APPLICATION OF THIS ACT

Application of Act

- 3** This Act applies to
- (a) the Crown in right of Manitoba and every agency of the government;
 - (b) every employer, worker and self-employed person whose workplace safety, health and welfare standards are ordinarily within the exclusive jurisdiction of the Legislature to regulate; and
 - (c) the Crown in right of Canada, every agency of the government of Canada, and every other person whose workplace safety, health and welfare standards are ordinarily within the jurisdiction of the Parliament of Canada, to the extent that the Crown in right of Canada may submit to the application of this Act.

DUTIES OF EMPLOYERS

General duties of employers

- 4(1)** Every employer shall in accordance with the objects and purposes of this Act
- (a) ensure, so far as is reasonably practicable, the safety, health and welfare at work of all his workers; and
 - (b) comply with this Act and regulations.

Further duties of employer

- 4(2)** Without limiting the generality of an employer's duty under subsection (1), every employer shall
- (a) provide and maintain a workplace, necessary equipment, systems and tools that are safe and without risks to health, so far as is reasonably practicable;
 - (b) provide to all his workers such information, instruction, training, supervision and facilities to ensure, so far as is reasonably practicable, the safety, health and welfare at work of all his workers;
 - (c) ensure that all his workers, and particularly his supervisors, foremen, chargehands or similar persons, are acquainted with any safety or health hazards which may be encountered by the workers in the course of their service, and that workers are familiar with the use of all devices or equipment provided for their protection;
 - (d) conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that persons who are not in his service are not exposed to risks to their safety or health arising out of, or in connection with activities in his workplace;

- (e) consult and co-operate with the workplace safety and health committee where such a committee exists, regarding the duties and matters with which that committee is charged under this Act;
- (f) consult and co-operate with the worker safety and health representative where such a representative has been designated, regarding the duties and matters with which that representative is charged under this Act;
- (g) co-operate with any other person exercising a duty imposed by this Act, or the regulations;
- (h) ensure that all of the employer's workers are supervised by a person who
 - (i) is competent, because of knowledge, training or experience, to ensure that work is performed in a safe manner, and
 - (ii) is familiar with this Act and the regulations that apply to the work performed at the workplace;
- (i) if the employer's workers are working on a construction project that has a prime contractor, advise the prime contractor of the name of the supervisor of the employer's workers on the project.

Employer as supervisor

4(3) For the purposes of clause (2)(h), an employer may supervise his or her workers if he or she satisfies the criteria set out in that clause.

Employer's duty re training

4(4) Without limiting the generality of clause (2)(b), every employer shall provide information, instruction and training to a worker to ensure, so far as is reasonably practicable, the safety, and health of the worker, before the worker

- (a) begins performing a work activity at a workplace;
- (b) performs a different work activity than the worker was originally trained to perform; or
- (c) is moved to another area of the workplace or a different workplace that has different facilities, procedures or hazards.

Performing work activity during training

4(5) Notwithstanding subsection (4), a worker may perform a work activity while being trained if the worker is under the direction of a supervisor or another person who is fully trained and has sufficient experience in performing that work activity to ensure that the safety or health of the worker and any other person is not at risk.

Wages and benefits during training

4(6) A worker is entitled to the same wages and benefits for any time spent in training that he or she would be entitled to had the worker been performing his or her regular work duties during that time.

S.M. 2002, c. 33, s. 7.

DUTIES OF SUPERVISORS

Duties of supervisors

4.1 Every supervisor shall

- (a) so far as is reasonably practicable,
 - (i) take all precautions necessary to protect the safety and health of a worker under his or her supervision,
 - (ii) ensure that a worker under his or her supervision works in the manner and in accordance with the procedures and measures required by this Act and the regulations, and
 - (iii) ensure that a worker under his or her supervision uses all devices and wears all clothing and personal protective equipment designated or provided by the employer or required to be used or worn by this Act or the regulations;
- (b) advise a worker under his or her supervision of all known or reasonably foreseeable risks to safety and health in the area where the worker is performing work;
- (c) co-operate with any other person exercising a duty imposed by this Act or the regulations; and
- (d) comply with this Act and the regulations.

S.M. 2002, c. 33, s. 7.

DUTIES OF WORKERS

General duties of workers

5 Every worker while at work shall, in accordance with the objects and purposes of this Act,

- (a) take reasonable care to protect his safety and health and the safety and health of other persons who may be affected by his acts or omissions at work;
- (b) at all times, when the nature of his work requires, use all devices and wear all articles of clothing and personal protective equipment designated and provided for his protection by his employer, or required to be used and worn by him by the regulations;

- (c) consult and co-operate with the workplace safety and health committee, where such a committee exists, regarding the duties and matters with which that committee is charged under this Act;
- (d) consult and co-operate with the worker safety and health representative, where such a representative has been designated, regarding the duties and matters with which that representative is charged under this Act;
- (e) comply with this Act and the regulations; and
- (f) co-operate with any other person exercising a duty imposed by this Act or the regulations.

DUTIES OF SELF-EMPLOYED PERSONS

General duties of self-employed persons

- 6** Every self-employed person shall, in accordance with the objects and purposes of this Act,
- (a) conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that he or any other person is not exposed to risks to his or that person's safety or health, arising out of, or in connection with, activities in his workplace;
 - (a.1) when he or she is working on a construction project that has a prime contractor, advise the prime contractor that he or she is working on the project;
 - (b) comply with this Act and the regulations; and
 - (c) co-operate with any other person exercising a duty imposed by this Act or the regulations.

S.M. 2002, c. 33, s. 10.

DUTIES OF PRIME CONTRACTORS

Requirement for prime contractor

- 7(1)** There shall be a prime contractor for a construction project if more than one employer or self-employed person is involved in work at the construction project site at the same time.

Prime contractor for construction project

- 7(2)** The prime contractor for a construction project is
- (a) the person who enters into a contract to serve as the prime contractor with the owner of the construction project site; or

- (b) if there is no contract referred to in clause (a), or if that contract is not in effect, the owner of the construction project site.

Duties of prime contractor

7(3) The prime contractor for a construction project shall

- (a) ensure, so far as is reasonably practicable, that every person involved in work on the project complies with this Act and the regulations;
- (b) co-ordinate, organize and oversee the performance of all work at the construction project site and conduct his or her own activities in such a way as to ensure, so far as is reasonably practicable, that no person is exposed to risks to his or her safety or health arising out of, or in connection with activities at the construction project site;
- (c) co-operate with any other person exercising a duty imposed by this Act or the regulations; and
- (d) comply with this Act and the regulations.

S.M. 2002, c. 33, s. 11.

DUTIES OF CONTRACTORS

Duties of contractors

7.1 Every contractor shall

- (a) ensure, so far as is reasonably practicable,
 - (i) that every workplace where an employer, employer's worker or self-employed person works pursuant to a contract with the contractor, and
 - (ii) that every work process or procedure performed at a workplace by an employer, employer's worker or self-employed person pursuant to a contract with the contractor,

that is not in the direct and complete control of that employer or self-employed person does not create a risk to the safety or health of any person;
- (b) if the contractor is involved in work on a construction project that has a prime contractor, advise the prime contractor of the name of every employer or self-employed person with whom the contractor has contracted to perform work on the project;

- (c) co-operate with any other person exercising a duty imposed by this Act or the regulations; and
- (d) comply with this Act and the regulations.

S.M. 2002, c. 33, s. 12.

DUTIES OF OWNERS

Duties of owners

7.2 Every owner of a workplace shall

- (a) ensure, so far as is reasonably practicable, that the land or premises used as a workplace that is under his or her control is provided and maintained in a manner that does not create a risk to the safety or health of any person;
- (b) co-operate with any other person exercising a duty imposed by this Act or the regulations; and
- (c) comply with this Act and the regulations.

S.M. 2002, c. 33, s. 12.

DUTIES OF SUPPLIERS

Duties of suppliers

7.3 Every supplier shall

- (a) ensure, so far as is reasonably practicable, that any tool, equipment, machine, device or chemical or biological substance provided by the supplier for use at a workplace
 - (i) is safe when used in accordance with the instructions provided by the supplier, and
 - (ii) conforms with the requirements of this Act and the regulations;
- (b) when prescribed by regulation, provide written instructions and information prescribed by regulation to every employer, self-employed person, contractor or prime contractor to whom the supplier supplies any tool, equipment, machine, device or chemical or biological substance; and
- (c) comply with this Act and the regulations.

S.M. 2002, c. 33, s. 12.

WORKPLACE SAFETY AND HEALTH PROGRAM

Establishment of workplace safety and health program

7.4(1) An employer shall establish a written workplace safety and health program for each workplace where 20 or more workers of that employer are regularly employed.

Determining number of workers

7.4(2) For the purposes of subsection (1), the number of workers employed at a workplace shall be determined by averaging, over the previous 12 months, the number of full-time and part-time workers present each working day.

Program for multiple workplaces

7.4(3) Notwithstanding subsection (1), the director may issue a written order permitting an employer to establish a workplace safety and health program for more than one workplace or parts of more than one workplace.

Considerations of director

7.4(4) In determining whether to make an order under subsection (3), the director shall take into account

- (a) the nature of the work performed at the workplace;
- (b) any request for an order by an employer, worker or union representing workers at the workplace; and
- (c) the frequency of injury or illness in the workplace or in the industry in question.

Content of program

7.4(5) A workplace safety and health program must include

- (a) a statement of the employer's policy with respect to the protection of the safety and health of workers at the workplace;
- (b) the identification of existing and potential dangers to workers at the workplace and the measures that will be taken to reduce, eliminate or control those dangers, including procedures to be followed in an emergency;
- (c) the identification of internal and external resources, including personnel and equipment, that may be required to respond to an emergency at the workplace;
- (d) a statement of the responsibilities of the employer, supervisors and workers at the workplace;

- (e) a schedule for the regular inspection of the workplace and of work processes and procedures at the workplace;
- (f) a plan for the control of any biological or chemical substance used, produced, stored or disposed of at the workplace;
- (g) a statement of the procedures to be followed to protect safety and health in the workplace when another employer or self-employed person is involved in work at the workplace that includes
 - (i) criteria for evaluating and selecting employers and self-employed persons to be involved in work at the workplace, and
 - (ii) procedures for regularly monitoring employers and self-employed persons involved in work at the workplace;
- (h) a plan for training workers and supervisors in safe work practices and procedures;
- (i) a procedure for investigating accidents, dangerous occurrences and refusals to work under section 43;
- (j) a procedure for worker participation in workplace safety and health activities, including inspections and the investigation of accidents, dangerous occurrences and refusals to work under section 43;
- (k) a procedure for reviewing and revising the workplace safety and health program every three years or more often if circumstances at a workplace change in a way that poses a risk to the safety or health of workers at the workplace; and
- (l) any other requirement prescribed by regulation.

Requirement for consultation

7.4(6) The employer shall design the workplace safety and health program in consultation with

- (a) the committee for the workplace; or
- (b) if there is no committee, the representative for the workplace.

Program available on request

7.4(7) The employer shall make a workplace safety and health program available to the following persons on request:

- (a) the committee;
- (b) if there is no committee, the representative;

- (c) a worker at the workplace;
- (d) a safety and health officer.

Co-ordination of programs by prime contractor

7.4(8) If workers from two or more employers that have workplace safety and health programs are working at a construction project site that has a prime contractor, the prime contractor shall co-ordinate the programs of those employers.

S.M. 2002, c. 33, s. 12; S.M. 2013, c. 9, s. 4.

DUTY TO PROVIDE REQUIRED INFORMATION

Definition: “required information”

7.5(1) In this section, “**required information**” means any information

- (a) that may affect the safety and health of a person at a workplace;
- (b) that is necessary to identify and control any existing or potential hazards with respect to a workplace or any process, procedure or biological or chemical substance used at a workplace; or
- (c) prescribed by regulation as required information.

Required information by prime contractor

7.5(2) Every prime contractor for a construction project shall provide, so far as is reasonably practicable, all required information that he or she knows or may reasonably be expected to know to

- (a) the owner of the construction project site; and
- (b) every contractor, employer and self-employed person who is involved in work on the project.

Required information by contractor

7.5(3) Every contractor shall provide, so far as is reasonably practicable, all required information that he or she knows or may reasonably be expected to know to

- (a) every owner of a workplace with whom the contractor has a contract;
- (b) every employer and self-employed person at a workplace with whom the contractor has a contract; and
- (c) the prime contractor for a construction project, if the contractor is involved in work on a construction project for which there is a prime contractor.

Required information by owner

- 7.5(4)** Every owner of a workplace shall provide, so far as is reasonably practicable, all required information that he or she knows or may reasonably be expected to know to
- (a) every employer who employs workers at the workplace; and
 - (b) every self-employed person who works at the workplace.

Required information by owner of construction project

- 7.5(5)** Despite subsection (4), if a workplace is a construction project site where work is performed on a construction project that is required to have a prime contractor, an owner of that workplace shall provide, so far as is reasonably practicable, all required information that he or she knows or may reasonably be expected to know only to the prime contractor.

S.M. 2002, c. 33, s. 12.

PERSONS WITH MULTIPLE FUNCTIONS

Definition: "function"

- 7.6(1)** In this section, "**function**" means the function of employer, supervisor, worker, self-employed person, prime contractor, contractor, owner or supplier under this Act and the regulations.

Multiple functions

- 7.6(2)** If a person has two or more functions under this Act in respect of one workplace, that person shall satisfy the duties imposed by this Act and the regulations for each function.

S.M. 2002, c. 33, s. 12.

Responsibility if duties apply to more than one person

7.7 If

- (a) one or more provisions in this Act or the regulations imposes the same duty on more than one person; and
- (b) one of the persons subject to that duty complies with the applicable provision;

the other persons subject to that duty are relieved of their duty only during the time when
- (c) simultaneous compliance of that duty by more than one person would result in unnecessary duplication of effort and expense; and
- (d) the safety and health of any person at the workplace is not put at risk by compliance with that duty by only one person.

S.M. 2002, c. 33, s. 12.

RELATIONSHIP OF THIS ACT TO *THE WORKERS COMPENSATION ACT*

Effect on compensation

8 The failure to comply with any provision of this Act or the regulations does not affect the right of a worker to compensation under *The Workers Compensation Act*.

Effect on liabilities

9 The liabilities and obligations of any person under *The Workers Compensation Act* are not decreased, reduced, or removed, by reason only of his compliance with the provisions of this Act or the regulations.

10 Renumbered as subsection 14(4).

11(1) [Repealed] S.M. 1991-92, c. 36, s. 65.

11(2) Renumbered as subsection 14(5).

S.M. 1991-92, c. 36, s. 65.

DUTIES AND POWERS OF THE DIRECTOR

Duties of director

- 12** The director shall, in accordance with the objects and purposes of this Act,
- (a) be concerned with workplace safety and health generally, and with the maintenance of reasonable standards for the protection of the safety and health of workers and self-employed persons in Manitoba;
 - (b) be responsible for the administration of this Act and the regulations;
 - (c) submit from time to time to the minister such recommendations as he considers appropriate for the making of regulations;
 - (d) ensure that persons and organizations concerned with the purposes of this Act are provided with information and advice pertaining to its administration and to the protection of the safety and health of workers generally;
 - (e) prepare and maintain or cause to be prepared and maintained illness, death and accident statistics relating to workers and self-employed persons, and do so either alone or in conjunction with The Workers Compensation Board, the Department of Health, or any other department, agency or commission; and

- (f) do such other things in connection with safety and health in the workplace as the minister may direct, for the purposes of carrying out the provisions of this Act and the regulations and the provisions of any other Act or regulations assigned to the minister for administration.

S.M. 2013, c. 9, s. 5.

Powers of director

- 13** The director may, in accordance with the objects and purposes of this Act,
 - (a) provide assistance to persons concerned with safety and health in the workplace, and provide services to assist workplace safety and health committees, employers and workers in maintaining reasonable standards for the protection of the safety and health of workers;
 - (b) carry out studies and research, or cause studies and research to be carried out, and make arrangements for the publication of results of research, in matters relating to the safety and health of workers;
 - (c) encourage, develop and conduct, either alone or in co-operation with organizations concerned with the purposes of this Act, education and information programs for promoting the safety and health of workers and for improving the qualifications of persons concerned with workplace safety and health;
 - (d) make recommendations to the minister regarding grants of moneys for any of the purposes referred to in this section;
 - (d.1) make recommendations to the minister regarding workplace safety and health and the prevention of workplace injury and illness;
 - (d.2) coordinate examinations and investigations
 - (i) for determining the cause and particulars of any accident or ill health occurring to a worker, or self-employed person, and arising out of or in connection with activities in the workplace, or
 - (ii) for the prevention of accidents or ill health arising out of or in connection with activities in the workplace; and
 - (e) perform such other functions as the minister may direct for the proper administration of this Act and the regulations.

S.M. 2013, c. 9, s. 6.

Public reporting of orders and penalties

13.1 The director may issue public reports disclosing details of improvement orders, stop work orders and administrative penalties made or imposed under this Act. The reports may disclose personal information as defined in *The Freedom of Information and Protection of Privacy Act*.

S.M. 2013, c. 9, s. 7.

DUTIES AND POWERS OF THE MINISTER

Powers of minister

- 14(1)** The minister may, in accordance with the objects and purposes of this Act,
- (a) authorize the director or any other person to investigate and make a special report to him on any accident, occurrence, or any matter of safety and health in the workplace;
 - (b) appoint the director or any other person to conduct a public inquiry into any matter of safety or health in the workplace, and the director or the person so appointed, for the purpose of an inquiry, has all the powers of a commissioner under Part V of *The Manitoba Evidence Act*;
 - (c) appoint consultants and advisors who are professionally or technically qualified to advise him in the making of regulations, or to advise him on the administration of this Act or regulations;
 - (d) call meetings of the advisory council on workplace safety and health;
 - (e) approve, with or without modifications, any recommendation submitted to the minister by the advisory council or the chief prevention officer;
 - (f) do such other things as he deems necessary for the proper carrying out of this Act.

Remuneration and expenses

14(2) Subject to the approval of the Lieutenant Governor in Council, members of the advisory council and consultants or advisors may be paid such remuneration and out-of-pocket expenses as may be authorized by the minister.

Payment of certain costs

- 14(3)** The minister may authorize the payment of certain costs
- (a) for investigative and consultative services; and

- (b) for medical examinations and reports made under this Act, the costs of which are not payable from public funds;

that may be carried out or rendered for the purposes of this Act.

Administration of Act

14(4) This Act is to be administered through the Workplace Safety and Health Branch of the department.

Minister to appoint director

14(4.1) The minister must appoint a person, in accordance with *The Civil Service Act*, as the Director of the Workplace Safety and Health Branch.

Consolidated Fund

14(5) To assist in defraying the expenses incurred in the administration of this Act moneys may be paid from the Consolidated Fund, if authorized by an Act of the Legislature to be so paid and applied.

S.M. 2002, c. 33, s. 14 and 15; S.M. 2013, c. 9, s. 8.

ADVISORY COUNCIL

Advisory council

15(1) The Lieutenant Governor in Council may in accordance with subsection (2) appoint a council to be known as "The Advisory Council on Workplace Safety and Health", which shall consist of a chairperson and not less than six or more than 12 members.

Composition of advisory council

15(2) Of the members appointed under subsection (1),

- (a) 1/3 shall be appointed after consultations by the minister with organizations representing workers;
- (b) 1/3 shall be appointed after consultations by the minister with organizations representing employers; and
- (c) 1/3 shall be appointed after consultations by the minister with technical and professional bodies whose members are concerned with the general purposes of this Act.

Chairperson

15(3) In addition to the members appointed under subsection (1), the Lieutenant Governor in Council shall appoint a person, other than a person appointed under subsection (1), as chairperson of the advisory council; but the chairperson does not have a vote in the affairs of the advisory council.

Term of office

15(4) The chairperson and members of the advisory council shall hold office for a term of three years and thereafter until their successors are appointed.

Quorum

15(5) A majority of the members of the advisory council, which shall include two persons representing the views of workers and two persons representing the views of employers, constitute a quorum of the advisory council.

Meetings of council

16(1) The council shall meet at the call of the minister or the chairperson, but in any case at least once a year.

Jurisdiction of council

16(2) The council may advise or make recommendations to the minister on any one or more of the following matters;

- (a) workplace safety and health generally, and the protection of workers in specific workplace situations;
- (b) the appointment of consultants and advisors by the minister; and
- (c) any matter relating to workplace safety and health on which the minister seeks the council's opinion.

Review every five years

16(3) At least once every five years, the council shall review this Act and its administration and report its findings and recommendations, if any, to the minister.

Review at request of minister

16(4) The council shall review any matter relating to the Act and its administration when requested to do so by the minister and report its findings and recommendations, if any, to the minister.

S.M. 2002, c. 33, s. 19.

CHIEF OCCUPATIONAL MEDICAL OFFICER**Chief occupational medical officer**

17(1) The minister shall appoint as chief occupational medical officer for the purpose of this Act, a person who is a duly qualified medical practitioner and who has training and experience in occupational medicine.

Powers of chief occupational medical officer

17(2) The chief occupational medical officer has all the powers of a workplace safety and health officer as set out in this Act, and such other powers as may be conferred upon him by the minister or the regulations.

Authorization for occupational health nurse

17(3) The chief occupational medical officer may provide written authority to a person who is an occupational health nurse to enter a workplace for the purpose of enforcing provisions of this Act, and a person so authorized shall have such duties and powers as are prescribed for the person by the chief occupational medical officer, but the duties and powers prescribed shall not include any duties and powers that are not prescribed for a person who is appointed as a safety and health officer under this Act.

CHIEF PREVENTION OFFICER

Chief prevention officer

17.1(1) The minister must appoint a person as the Chief Prevention Officer.

Term of appointment

17.1(2) The chief prevention officer may be appointed for a term not exceeding five years and may be appointed for successive terms not exceeding five years.

Responsibilities

17.1(3) The chief prevention officer has the following responsibilities:

- (a) to provide advice to the minister
 - (i) on the prevention of workplace injury and illness, and
 - (ii) on any other matter, as requested by the minister;
- (b) to develop recommendations, at the minister's request, respecting the prevention of workplace injury and illness;
- (c) to provide an annual report to the minister respecting the prevention of workplace injury and illness that includes
 - (i) an analysis of serious incidents at workplaces, including injury data, in order to identify current and emerging issues and trends respecting workplace injury and illness,
 - (ii) information on the progress being made in implementing government measures to prevent workplace injury and illness, and
 - (iii) an analysis of the effectiveness of prevention activities undertaken during the year;
- (d) to do any other thing in connection with the prevention of injury and illness in the workplace, as requested by the minister.

Annual report by chief prevention officer

17.1(4) The minister must make the chief prevention officer's annual report available to the public by posting it on the department's website and by any other means the minister considers advisable.

Workplace injury and illness prevention recommendations

17.1(5) The chief prevention officer's recommendations respecting the prevention of workplace injury and illness must include

- (a) a statement of the goals for preventing injury and illness in the workplace;
- (b) key performance indicators for measuring the achievement of the goals; and
- (c) any other matter specified by the minister.

Consultation

17.1(6) In preparing the recommendations, the chief prevention officer must consult with

- (a) organizations representing workers;
- (b) organizations representing employers;
- (c) technical and professional bodies whose members are concerned with the general purposes of this Act;
- (d) other departments of the government and agencies of the government; and
- (e) any other persons or organizations that the minister considers advisable.

S.M. 2013, c. 9, s. 9.

REGULATIONS, CODES AND STANDARDS

Regulations

18(1) The Lieutenant Governor in Council may make regulations

- (a) respecting standards and practices to be established and maintained by employers, supervisors, self-employed persons, prime contractors, contractors, owners and suppliers to protect the safety and health of any person at a workplace;
- (b) respecting procedures, measures and precautions that are required, or prohibited, when performing any work activity;

- (c) imposing requirements respecting conditions at workplaces, including such matters as the structural condition and stability of premises, available exits from premises, cleanliness, temperature, lighting, ventilation, overcrowding, noise, vibrations, ionizing and other radiations, dust and fumes;
- (c.1) respecting the prohibition of smoking at workplaces, including deeming a contravention of *The Non-Smokers Health Protection Act* relating to workplaces to be a contravention of this Act for the purpose of issuing an improvement order under section 26;
- (d) prescribing minimum standards of welfare facilities at workplaces, including the supply of water, sanitary conveniences and facilities for washing, bathing, changing, storing personal property, breaks and refreshment;
- (e) regulating or prohibiting the manufacture, supply, or use of any plant, tool, equipment, machine or device;
- (f) respecting the design, construction, guarding, siting, installation, commissioning, examination, repair, maintenance, alteration, adjustment, dismantling, testing, inspection, use, or approval prior to installation or use, of any plant, tool, equipment, machine or device;
- (g) prescribing requirements with respect to the marking of any plant, tool, equipment, machine or device used or manufactured in any workplace, and regulating or restricting the use of specified markings;
- (h) regulating or prohibiting the manufacture, supply, keeping, handling or use of any substance or material that may adversely affect the safety or health of any person at a workplace;
- (i) respecting the testing, labelling and examination of any substance or material that may affect the safety or health of any person at a workplace;
- (j) respecting the prevention, study and treatment of industrial diseases, including arrangements for medical examinations and health surveillance of persons involved in work at a workplace;
- (k) respecting the monitoring of atmospheric and other conditions in workplaces;
- (l) respecting the instruction, training and supervision of workers;

- (m) respecting the provision by employers, and the use by workers, of protective clothing or devices, including clothing affording protection against the weather;
- (n) prohibiting the performance of specified functions by any person who does not possess specified qualifications or experience;
- (o) respecting licences, certificates or designations required by persons performing specified functions at a workplace, and the fees and conditions required to obtain a licence, certificate or designation;
- (p) requiring a person to obtain a permit to carry on a specified activity affecting the safety or health of any person at a workplace, including the terms and conditions and the fee for the permit;
- (q) respecting the suspension or cancellation of any licence, certificate or permit issued under this Act;
- (r) respecting the preparation, maintenance and submission of records and reports dealing with accidents, industrial diseases and workplace safety and health standards;
- (s) restricting, prohibiting or requiring any activity if an accident or any other specified dangerous occurrence has occurred, or may occur;
- (t) respecting committees, including but not limited to
 - (i) the operation of committees,
 - (ii) the frequency of meetings of committees, including more frequent meetings for specified classes of workplaces,
 - (iii) the participation of committees members in inspections, investigations and other related matters, and
 - (iv) the submission of committee records to the director;
- (u) respecting representatives, including but not limited to
 - (i) the participation of representatives in inspections, investigations and other related matters, and
 - (ii) the submission of representatives' records to the director;
- (v) respecting workplace safety and health programs;
- (w) prescribing the persons to whom, circumstances in which, and methods by which specified information concerning safety and health shall be communicated;

- (x) prescribing the fees payable for examinations required under this Act;
- (y) respecting arrangements for ambulance service and first-aid treatment at workplaces;
- (z) respecting the employment or the provision of alternate employment to
 - (i) a pregnant or nursing worker, and
 - (ii) a worker whose safety or health is put at risk by exposure to a chemical or biological substance;
- (aa) respecting the establishment of policies and procedures in workplaces or classes of workplaces to prevent and respond to potentially violent situations;
- (bb) respecting measures that employers shall take to prevent harassment in the workplace;
- (bb.1) for the purpose of section 21, respecting the criteria to be used and the procedures to be followed when determining whether to make an order, or to reconsider an order, exempting a person or class of persons from any provision of a regulation;
- (bb.2) for the purpose of section 40,
 - (i) respecting the procedures to be followed in determining whether to issue an order, or to reconsider an order, under subsection 40(6) or (7.1), and
 - (ii) respecting any additional criteria to be considered by the director under subsection 40(7);
- (cc) for the purpose of section 53.1,
 - (i) specifying the form and content of notices of administrative penalties,
 - (i.1) prescribing provisions of this Act or the regulations for the purposes of subclauses 53.1(1)(a)(ii) and (2)(a)(ii),
 - (ii) respecting the determination of amounts of administrative penalties, which may vary according to the number of workers affected by, or the nature or frequency of, the matter that gave rise to the issuance of the notice of administrative penalty, and
 - (iii) respecting any other matter necessary for the administration of a system of administrative penalties provided for under this Act;

- (dd) defining the meaning of any word or phrase used but not defined in this Act;
- (ee) respecting any matter required or authorized by this Act to be prescribed or dealt with by regulation;
- (ff) respecting any matter that the Lieutenant Governor in Council considers necessary or advisable to carry out the purposes of this Act.

Application of regulations

18(2) A regulation made under subsection (1) may be made applicable generally to all workplaces, or particularly to one or more workplaces, or to such classes thereof as may be specified therein.

S.M. 2002, c. 33, s. 22; S.M. 2004, c. 17, s. 10; S.M. 2013, c. 9, s. 10.

Approval of codes of practice

19(1) For the purpose of providing practical guidance with respect to the requirements of any provision of the regulations, the director may approve and issue such codes of practice or any amendment or revision thereof as in his opinion are suitable for that purpose.

Notice in Gazette

19(2) Where a code of practice is approved by the director under subsection (1), he shall cause to be published in the Manitoba Gazette a notice identifying the code, specifying the provisions of the regulations to which it applies and stating the effective date of the approval.

Failure to observe code, no offence

20(1) The failure by any person to observe any provision of an approved code of practice is not of itself an offence.

Admissibility of codes as evidence

20(2) Where a person is charged with a breach of any provision of the regulations in respect of which the director has issued a code of practice, that code is admissible as evidence in a prosecution for the violation of the provision of the regulation.

Certified copy of code required

20(3) A copy of a code of practice, or any amendment or revision thereto as approved by the director, certified to be a true copy by the director shall be received as evidence in any court without proof of the signature or of the official character of the person purporting to have signed the certificate.

Onus

20(4) Where a code of practice is admitted as evidence under subsection (2), and a prima facie case of non-compliance with the code of practice is established, the onus is on the accused to prove that he has complied with the regulation.

Exemption from regulation

21(1) After consulting with any parties he or she considers appropriate, the director may, in accordance with the regulations, make a written order exempting a person or class of persons from any provision of a regulation to meet the special circumstances in a particular case.

Considerations on exemptions

21(2) The director may make an order under subsection (1) only if he or she is satisfied that no worker's health or safety is materially affected by the exemption and any criteria set out in the regulations are met.

Terms and conditions of order

21(3) The director may impose any terms or conditions in connection with the order that the director considers necessary to maintain the safety or health of a worker.

Reconsideration of exemption order

21(4) If, after making an order under this section, additional information comes to the attention of the director, the director may, in accordance with the regulations, reconsider the order and

- (a) confirm the order; or
- (b) vary, suspend or revoke the order if the director believes that
 - (i) he or she would have come to a different decision if the information had been known when the order was made, or
 - (ii) a worker's safety or health is materially affected by the order.

S.M. 2002, c. 33, s. 23; S.M. 2013, c. 9, s. 11.

SAFETY AND HEALTH OFFICERS

Appointment of safety and health officers

22(1) The minister may appoint persons as safety and health officers for the purpose of enforcing this Act and the regulations.

Agreements with other provinces

22(2) The minister may enter into an agreement with any province authorizing a person employed by that province to act as a safety and health officer for the purpose of this Act.

Inspections for other jurisdictions

22(3) The minister may consent to have a safety and health officer carry out safety and health inspections or other work on behalf of another province or the Government of Canada upon such terms and conditions as he deems advisable.

Credentials to be provided to safety and health officer

22(4) The minister shall provide each safety and health officer with written credentials of his appointment which the officer shall produce upon request when exercising or seeking to exercise any of the powers conferred on him under this Act.

Duties of safety and health officers

23 A safety and health officer shall

- (a) make such inspections and inquiries, and carry out such tests, as he deems necessary to ascertain whether compliance is being made with the provisions of this Act and the regulations; and
- (b) carry out such other duties as may be assigned to safety and health officers under this Act or the regulations.

Powers of safety and health officers

24(1) For the purpose of enforcing this Act and the regulations, a safety and health officer may, at any reasonable time, or where in his opinion a situation exists that is or may be dangerous at any time

- (a) without a warrant and without prior notification enter any place or premises in which he has reason to believe workers or self-employed persons are working or were working, other than premises used for personal residential purposes;
- (b) under the authority of an order made under subsection (2), enter any premises used for personal residential purposes in which he has reason to believe workers or self-employed persons are working or were working;
- (c) take with him any other person, and such equipment and materials, as he needs to assist him; and arrange with the employer, or person in charge of the place or premises, for that other person to re-enter alone to perform specified duties;
- (d) make such examinations and investigations as he deems necessary for determining the cause and particulars of any accident or ill health occurring to a worker, or self-employed person, and arising out of or in connection with activities in the workplace, or for the prevention of accidents or ill health arising out of or in connection with activities in the workplace;
- (e) take such measurements and photographs, make such tests and recordings, and take such samples of articles or substances found in the place or premises, or of the atmosphere in or near the place or premises as he deems necessary;

- (f) test or cause to be tested any equipment in the place or premises, or for the purposes of testing, require the equipment to be removed to a place designated by the director;
- (f.1) require the employer or a person designated by the employer to demonstrate the use of any machinery, equipment, appliance or thing at a workplace;
- (g) cause any article, substance or sample taken pursuant to clause (e), to be dismantled or subjected to any process or test but not in such manner as to damage or destroy it unless under the circumstances damage thereto is unavoidable or necessary;
- (h) in the case of any article, substance or equipment mentioned in clauses (e) and (g), to take possession thereof and detain it for so long as is necessary for use as evidence in any proceedings or prosecution under this Act;
- (i) require any documents, books, or records that relate in any way to the safety and health in workplaces of workers, or self-employed persons, to be produced for inspection and to make copies thereof or take extracts therefrom;
- (j) require any person to provide him with facilities or assistance with respect to any matters or things within that person's control, or in relation to which that person has responsibilities;
- (k) in conducting any inspection, inquiry, investigation, or examination under this section, or under section 23 require any person, whom the officer has reasonable cause to believe to possess any information respecting the conditions of workplace safety, health and welfare, to attend an interview and to provide full and correct answers, either orally or in writing, to such questions as the officer thinks fit to ask; and the interview shall take place in the absence of persons other than a person nominated by the person being interviewed to be present, and any other person whom the officer may allow to be present;
- (l) direct that any workplace, or part thereof, or anything therein, be left undisturbed for such time as is reasonably necessary for any of the purposes specified in clauses (d), (e) and (g);
- (m) do such other things as may be authorized by the minister.

Order for entry into residential premises

24(2) A safety and health officer may apply to a judge of the Court of Queen's Bench for an order requiring the person in possession of any residential premises in which the safety and health officer has reason to believe workers or self-employed workers are working or were working to permit the safety and health officer to enter the residential premises for the purposes of inspecting them and, if the judge is satisfied that it is reasonable and necessary for the administration of the Act to grant such an order, he may grant the order.

S.M. 2002, c. 33, s. 25.

Power of commissioner under Evidence Act

25 A safety and health officer, for the purpose of conducting an inspection, inquiry or investigation under this Act or the regulations, has all the powers of a commissioner under Part V of *The Manitoba Evidence Act*.

IMPROVEMENT ORDERS

Improvement orders

26(1) Where a safety and health officer is of the opinion that a person

- (a) is contravening any provision of this Act or the regulations; or
- (b) has contravened any provision of this Act or the regulations in circumstances which make it likely that the contravention will continue or be repeated;

the officer may make an improvement order against that person, requiring that person to remedy the contravention within such period as may be specified in the order and stating the reasons for making the order and requiring the person to maintain compliance with the improvement order.

Stop work warning

26(2) Where the officer believes that the contravention referred to in clause (1)(a) or (b), involves or is likely to involve a serious risk to the safety or health of any person in or about the workplace, he may, in the improvement order specify that if the contravention is not remedied within the period mentioned therein, a stop work order may be issued in accordance with section 36.

S.M. 2013, c. 9, s. 12.

27 to 31 [Repealed]

S.M. 2002, c. 33, s. 27.

32 Renumbered as section 36.3.

Remedial measures

- 33** An improvement order may, but need not, include directions as to the measures to be taken to remedy any contravention or matter to which the order relates, and those directions
- (a) may be made by reference to any approved code of practice; and
 - (b) may set out different ways of remedying the contravention or matter.

Period for compliance with improvement orders

- 34** Where an improvement order provides a period for compliance therewith
- (a) the period shall begin at the time the order is communicated to the person against whom it is made;
 - (b) the order may be withdrawn by the safety and health officer at any time before the end of the specified period; or
 - (c) the period may be extended by the safety and health officer, unless an appeal against the order is made and not finally disposed of.

Reporting compliance with improvement orders

- 35(1)** The person against whom an improvement order is made shall
- (a) within seven days after the expiry of the period specified in the order or any extension thereof prepare a written report on the measures taken to remedy the contravention and on any measures yet to be taken;
 - (b) send a copy of the report to the workplace safety and health officer who made the order;
 - (c) provide a copy of the report to the workplace safety and health committee for the workplace with respect to which the order was made or to the worker safety and health representative, if no safety and health committee exists; and
 - (d) post in a prominent place at or near the workplace a copy of the report if there is no safety and health committee or a worker safety and health representative for the workplace.

Achieving compliance with improvement orders

- 35(2)** Despite the submission of a report under subsection (1), the report is not determinative of whether or not the improvement order has been complied with. The person against whom an improvement order is made only achieves compliance with the order when an officer determines that compliance has been achieved.

STOP WORK ORDERS

Stop work order

36(1) Where a safety and health officer is of the opinion that activities that involve, or are likely to involve, an imminent risk of serious physical or health injury are being carried on, or are about to be carried on, in a workplace, or where a contravention specified in an improvement order was not remedied and a warning was given in accordance with subsection 26(2), the officer may make a stop work order providing for any one or more of the following matters:

- (a) the cessation of those activities;
- (b) that all or part of the workplace be vacated;
- (c) that no resumption of those activities be permitted by the employer.

Stop work order — multiple workplaces

36(1.1) Where a safety and health officer is of the opinion that activities that involve, or are likely to involve, an imminent risk of serious physical or health injury are being carried on, or are about to be carried on, by workers of the same employer at more than one workplace, the officer may make a stop work order providing for any one or more of the following matters:

- (a) the cessation of those activities;
- (b) that all or part of any of the employer's workplaces be vacated;
- (c) that no resumption of those activities be permitted by the employer at any of the employer's workplaces.

Improvement work not affected

36(2) A stop work order does not prevent the doing of any work or thing that may be necessary in order to remove the risk of injury referred to in subsection (1) or (1.1).

36(3) [Repealed] S.M. 2002, c. 33, s. 31.

Duration of stop work order

36(4) A stop work order remains in effect until it is

- (a) withdrawn or discontinued by the safety and health officer who issued it; or
- (b) set aside or varied by the director or the Board under subsection 37(4) or 39(5).

Duration of varied order

36(5) When the director or the Board varies a stop work order, the varied order remains in effect until a safety and health officer withdraws or discontinues it.

Workers must be paid

36(6) While a stop work order is in effect,

- (a) any worker who is directly affected by the order is entitled to the same wages and benefits that he or she would have received had the stop work order not been issued; and
- (b) the employer may re-assign the worker to alternate work.

If alternate work not available

36(7) If the employer provides satisfactory evidence to the director that alternate work is not available, the director may order that clause 6(a) does not apply for any period that the director specifies in the order, but until the director makes an order the employer is required to provide a worker with all wages and benefits under that clause.

Appeal

36(8) A person affected by an order of the director under subsection (7) may appeal it to the Board. In that case, section 39 applies with necessary changes.

S.M. 2002, c. 33, s. 31; S.M. 2013, c. 9, s. 14.

COMMUNICATING IMPROVEMENT ORDERS AND STOP WORK ORDERS

Communication of orders

36.1(1) Subject to subsection (2), an improvement order or stop work order may be communicated to the person against whom the order is made

- (a) by delivering a copy of the order to the person or an agent of the person;
- (b) by sending a copy of the order by registered mail to the last known address of the person; or
- (c) if, despite reasonable efforts, the order cannot be communicated by delivery or mail under clause (a) or (b), by posting a copy of the order in a conspicuous place at or near the workplace with respect to which the order was made.

Communication to worker and self-employed person

36.1(2) An improvement order or a stop work order against a worker or self-employed person may be communicated

- (a) by delivering a copy of the order to the worker or the self-employed person; or

- (b) if, despite reasonable efforts, the order cannot be delivered to the worker or self-employed person, by sending a copy of the order by registered mail to the last known address of the worker or self-employed person.

Communication of improvement order

36.1(3) If an improvement order is posted at a workplace under subsection (1), it is deemed to have been communicated to the person against whom the order was made 24 hours after the order was posted.

Communication of stop work order

36.1(4) A stop work order is deemed to have been communicated at the time it is delivered, received or posted in accordance with this section and takes effect immediately upon delivery, receipt or posting.

Directions for communication

36.1(5) Despite subsections (1) and (2), the director may direct that an order be communicated to a person in a manner not described in this section and may direct when the order is deemed to have been communicated.

S.M. 2002, c. 33, s. 31.

Communication of orders to prime contractor

36.2 If a safety and health officer makes an order against any person involved in work on a construction project that has a prime contractor, the officer shall provide a copy of the order to the prime contractor.

S.M. 2002, c. 33, s. 31.

Communication to workplace committees

- 36.3(1)** A copy of every improvement order shall be provided by the safety and health officer to
- (a) the workplace safety and health committee for the workplace with respect to which the order was made; or
 - (b) the worker safety and health representative, if no safety and health committee exists for the workplace.

Posting improvement order

36.3(2) Where there is no workplace safety and health committee or a worker safety and health representative for the workplace, the officer shall post in a prominent place at or near the workplace a copy of every improvement order.

S.M. 2002, c. 33, s. 28.

APPEALS

Appeal can be made to director

37(1) A person directly affected by an order or decision of a safety and health officer made under

- (a) section 26 (improvement order);
- (b) section 36 (stop work order);
- (c) section 42.1 (discriminatory action); or
- (d) section 43 (right to refuse dangerous work);

may appeal the order or decision to the director.

How to appeal

37(2) The person appealing shall send a written appeal notice to the director within 14 days after the date of the order or decision, or within any further period that the director may allow. The notice must state the reasons for the appeal and list the persons interested in the appeal.

Submissions from interested persons

37(2.1) The director must give the interested persons listed in the notice of appeal an opportunity to provide oral or written submissions, as determined by the director, about the matter that is the subject of the appeal.

Hearing not required

37(3) The director is not required to hold a hearing before deciding an appeal.

Decision

37(4) On an appeal, the director may

- (a) make an order confirming, varying or setting aside the order or decision; or
- (b) make any other order the director considers reasonable.

Reasons

37(5) The director must make a decision about the appeal, and give written reasons, within a reasonable time after receiving the appeal notice, unless the appeal has been referred to the Board under section 38.

Original decision remains in effect pending appeal

37(6) Unless the director orders otherwise, an appeal under this section does not suspend the operation of the order or decision under appeal.

Referring an appeal to Board

38(1) Instead of deciding an appeal under section 37, the director may refer it to the Board. In that case, subsections 39(2) to (8) apply to the appeal, with necessary changes.

Reasons

38(2) The director must give written reasons for a decision to refer an appeal to the Board under subsection (1).

Director to give information to Board

38(3) On referring an appeal to the Board, the director shall

- (a) inform the person appealing that the appeal has been referred to the Board;
- (b) give the Board
 - (i) the appeal notice under section 37,
 - (ii) any written information the director has that is relevant to the appeal, and
 - (iii) a list of persons who the director thinks are directly affected by the order or decision under appeal; and
- (c) give each person on that list a copy of the appeal notice and any written information the director has that is relevant to the appeal.

S.M. 2002, c. 33, s. 32.

Appeal to Board

39(1) Any person directly affected by an order or decision of the director under section 37 may appeal it to the Board.

How to appeal

39(2) The person appealing must send a written appeal notice to the Board within 14 days after the date of the order or decision, or within any further period that the Board may allow. The notice must state the reasons for the appeal and must be in the form and contain the information the Board requires.

Notice of hearing date

39(3) On receiving a notice of appeal, the Board shall

- (a) fix a date, time and place for hearing the appeal; and
- (b) give written notice of the hearing to the person appealing, the director and any other person directly affected, at least five days before the hearing date.

Director is party

39(4) The Director is a party to an appeal under this section.

Right to be heard

39(5) At the hearing, the Board shall give any interested person an opportunity to be heard, to present evidence and to make presentations.

Decision

39(6) After hearing an appeal, the Board may make an order confirming, varying or setting aside the order or decision appealed from. It may also make any other order it considers necessary that is mentioned in subsection 31(4) of *The Labour Relations Act* (remedies for unfair labour practice).

Order remains in effect pending appeal

39(7) Unless otherwise ordered by the Board chairperson, an appeal to the Board under this section does not suspend the operation of the order or decision under appeal.

Order filed in Queen's Bench

39(8) An order of the Board may be filed in the Court of Queen's Bench and enforced in the same manner and to the same extent as a judgment of that court.

Appeal to Court of Appeal

39(9) A person who is a party to an order of the Board made under subsection (6) may appeal the order to The Court of Appeal, but only on a question of law or jurisdiction and by leave of a judge of the Court.

S.M. 2002, c. 33, s. 32; S.M. 2013, c. 9, s. 16.

WORKPLACE SAFETY AND HEALTH COMMITTEES AND REPRESENTATIVES

Workplace safety and health committee

40(1) An employer must establish a workplace safety and health committee

- (a) for each workplace where
 - (i) in the case of a seasonal workplace, at least 20 of the employer's workers are involved, or are expected to be involved, in work and the work is expected to continue for at least 90 days, and
 - (ii) in the case of any other workplace, at least 20 of the employer's workers are regularly employed; and
- (b) for any other individual workplace or class of workplace designated by a written order of the director.

Exception for construction project with prime contractor

40(2) Subsection (1) does not apply to a construction project site that is required to have a prime contractor.

Committee for construction project site

40(3) A prime contractor shall establish a committee at a construction project site if

- (a) at least 20 workers are involved, or expected to be involved, in work on a construction project; and
- (b) the project is expected to require more than 90 days to complete.

Determining number of workers

40(4) For the purposes of subsection (1), the number of workers employed at a workplace shall be determined by averaging, over the previous 12 months, the number of full-time and part-time workers present each working day.

More than one committee in a workplace

40(5) The director may issue a written order requiring an employer or prime contractor to establish more than one committee for a workplace. The order may provide for the composition, practice and procedures of those committees.

Committee for multiple workplaces

40(6) Notwithstanding subsections (1) and (3), the director may, in accordance with the regulations, issue a written order permitting an employer or prime contractor to establish one committee for more than one workplace or parts of more than one workplace. The order may provide for the composition, practice and procedures of that committee.

Considerations of director

40(7) In determining whether to make an order under subsection (5) or (6), the director shall take into account

- (a) the nature of the work performed at the workplace;
- (b) any request for an order by an employer, prime contractor, worker or union representing workers at the workplace;
- (c) the frequency of injury or illness in the workplace or in the industry in question; and
- (d) with respect to an order under subsection (6), any additional criteria set out in the regulations.

Reconsideration re one committee for multiple workplaces

40(7.1) If, after making an order under subsection (6), additional information comes to the attention of the director, the director may, in accordance with the regulations, reconsider the order and

- (a) confirm the order; or
- (b) vary, suspend or revoke the order if the director believes that
 - (i) he or she would have come to a different decision if the information had been known when the order was made, or
 - (ii) a worker's safety or health is materially affected by the order.

Membership of committee

40(8) A committee

- (a) shall consist of not fewer than four or more than 12 persons, of whom at least 1/2 shall be persons
 - (i) representing workers who are not associated with the management of the workplace, and
 - (ii) appointed in accordance with the constitution of the union that is the certified bargaining agent or that has acquired bargaining rights on behalf of those workers, or where no such union exists, persons elected by the workers they represent; and
- (b) shall have two co-chairpersons — one chosen by the employer members on the committee, and the other chosen by the worker members on the committee — who shall alternate in serving as chairperson at meetings of the committee and shall participate in all decisions of the committee.

Posting of names of members

40(9) The employer or prime contractor shall ensure that the names of the committee members are posted conspicuously in the workplace.

Duties of committee

40(10) The duties of a committee include

- (a) the receipt, consideration and disposition of concerns and complaints respecting the safety and health of workers;
- (b) participation in the identification of risks to the safety or health of workers or other persons, arising out of or in connection with activities in the workplace;
- (c) the development and promotion of measures to protect the safety and health and welfare of persons in the workplace, and checking the effectiveness of such measures;

- (d) co-operation with the occupational health service, if such a service has been established within the workplace;
- (e) co-operation with a safety and health officer exercising duties under this Act or the regulations;
- (f) the development and promotion of programs for education and information concerning safety and health in the workplace;
- (g) the making of recommendations to the employer or prime contractor respecting the safety and health of workers;
- (h) the inspection of the workplace at regular intervals;
- (i) the participation in investigations of accidents and dangerous occurrences at the workplace;
- (j) the maintenance of records in connection with the receipt and disposition of concerns and complaints and the attendance to other matters relating to the duties of the committee; and
- (k) such other duties as may be specified in this Act or prescribed by regulation.

Time off for committee work

40(11) A member of a committee is entitled to take the following time off from his or her regular duties:

- (a) one hour or such longer period of time as the committee determines is necessary to prepare for each committee meeting;
- (b) the time required to attend each meeting of the committee;
- (c) the time required to attend workplace safety and health training in accordance with section 44, as approved by the committee and the employer;
- (d) such time as the committee determines is necessary to carry out his or her duties as a committee member under this Act and the regulations.

Entitlement to pay for work as committee member

40(12) A member of a committee is deemed to be at work during the times described in subsection (11) and is entitled to be paid for those times by his or her employer at the member's regular or premium pay, as applicable.

Training of committee members

40(13) The employer or prime contractor must ensure that committee members are trained to competently fulfill their duties as committee members.

S.M. 2002, c. 33, s. 32; S.M. 2013, c. 9, s. 17.

Workplace safety and health representative

41(1) Each employer shall cause a worker not associated with management to be designated as the worker safety and health representative

- (a) at a workplace, other than a construction project, where a safety and health committee is not required but where five or more workers are regularly employed;
- (b) at a construction project, notwithstanding the requirements for a safety and health committee; and
- (c) at any other individual workplace or classes of workplaces designated by a written order of the director.

Appointment of representative

41(2) The worker safety and health representative shall be appointed in accordance with the constitution of the union which is the certified bargaining agent or has acquired bargaining rights on behalf of those workers, or if no such union exists, shall be elected by the workers he represents.

Posting of name of representative

41(3) The employer shall cause the name of the representative to be posted prominently in the workplace.

41(4) [Repealed] S.M. 2002, c. 33, s. 33.

Duties of representative

41(5) The worker representative shall, in co-operation with a representative of the employer, perform the same duties as set out for the workplace safety and health committees in section 40.

Time off for work as representative

41(6) A representative is entitled to take the following time off from his or her regular duties:

- (a) one hour to prepare for each safety and health meeting with the employer;
- (b) the time required to attend each safety and health meeting with the employer;
- (c) the time required to attend workplace safety and health training in accordance with section 44, as approved by the employer;

- (d) such time as is necessary to carry out his or her duties as a representative under this Act and the regulations.

Entitlement to pay for work as representative

41(7) A representative is deemed to be at work during the times described in subsection (6) and is entitled to be paid for those times by his or her employer at the representative's regular or premium pay, as applicable.

Training of representative

41(8) The employer must ensure that the representative is trained to competently fulfill his or her duties as a representative.

S.M. 2002, c. 33, s. 33; S.M. 2013, c. 9, s. 18.

Definition: "employer"

41.1(1) In this section, "**employer**" means an employer or prime contractor who is required to establish a committee or to designate a representative.

Recommendation by co-chair of committee

41.1(1.1) If a committee has failed to reach a decision about whether or not to make a recommendation under clause 40(10)(g) after attempting in good faith to do so, either co-chairperson may make written recommendations to the employer.

Employer response to recommendations

41.1(2) Within 30 days after receiving a recommendation from a representative, a committee or a committee co-chairperson that identifies anything that may pose a danger to the safety or health of any person, the employer must respond in writing to the representative, committee or committee co-chairperson who made the recommendation.

Contents of employer response

41.1(3) The response of an employer must

- (a) contain a timetable for implementing the recommendations that the employer accepts;
- (a.1) contain any interim control measures that the employer will implement to address the danger posed to the safety or health of a person; and
- (b) give reasons why the employer disagrees with any recommendations that the employer does not accept.

Referral to safety and health officer

41.1(4) If no agreement can be reached regarding the response of an employer under subsection (3), any of the following may refer the matter to a safety and health officer:

- (a) the employer;
- (b) the committee;
- (c) a member of the committee;
- (d) if there is no committee, the representative.

Order from officer

41.1(5) If a dispute regarding a recommendation is referred to a safety and health officer, the officer may issue an order or a decision in accordance with this Act.

No limitation

41.1(6) Nothing in this section limits the right of a worker to refer any matter respecting safety and health directly to a safety and health officer.

S.M. 2002, c. 33, s. 33; S.M. 2013, c. 9, s. 19.

Information on request

41.2 If requested by a committee or a representative, or a worker if there is no committee or representative, the employer or prime contractor must disclose the following to the committee, representative or worker:

- (a) information concerning the testing of any equipment, device or chemical or biological substance used at a workplace;
- (b) an inspection or investigation report respecting safety and health at the workplace, other than a harassment investigation report;
- (c) a report respecting workplace safety and health monitoring or audits;
- (d) a report providing summary information on the results of a harassment investigation, without disclosing the circumstances relating to the complaint or any information that could identify a worker or other person involved with the matter.

S.M. 2002, c. 33, s. 33; S.M. 2013, c. 9, s. 20.

Accompanying an officer

41.3(1) A safety and health officer who conducts an inspection or investigation at a workplace, may request that he or she be accompanied by

- (a) the worker co-chairperson of the committee or his or her designate;
- (b) if there is no committee at the workplace, the representative;
- (c) if there is no committee or representative at the workplace, a worker selected by the union; or

- (d) if there is no committee, representative or union representing workers at the workplace, a worker not associated with the management of the workplace.

Employer co-operation

41.3(2) If a safety and health officer makes a request under subsection (1), the employer shall permit the person requested to accompany the officer on the inspection or investigation and shall pay the person in accordance with subsection 40(11).

S.M. 2002, c. 33, s. 33.

DISCRIMINATORY ACTION

Discriminatory action against worker prohibited

42(1) No employer, union or person acting on behalf of an employer or union shall take or threaten discriminatory action against a worker for

- (a) exercising a right under or carrying out a duty in accordance with this Act or the regulations;
- (b) testifying in a proceeding under this Act;
- (c) giving information about workplace conditions affecting the safety, health or welfare of any worker to
 - (i) an employer or a person acting on behalf of an employer,
 - (ii) a safety and health officer or another person concerned with the administration of this Act,
 - (iii) another worker or a union representing a worker, or
 - (iv) a committee or a representative;
- (d) performing duties or exercising rights as a member of a committee or as a representative;
- (e) refusing to do dangerous work under section 43;
- (f) taking reasonable action at the workplace to protect the safety or health of another person;
- (g) complying with this Act or the regulations or a code of practice under this Act, or an order or decision made under this Act; or
- (h) attempting to have this Act or the regulations enforced.

Failure to pay wages or benefits

42(2) In addition to the circumstances giving rise to discriminatory action as set out in subsection (1), an employer who fails to pay wages or benefits to a worker when required to do so by this Act is deemed to have taken discriminatory action against the worker under this section.

S.M. 2002, c. 33, s. 34; S.M. 2013, c. 9, s. 21.

Referring a complaint to an officer

42.1(1) A worker who believes on reasonable grounds that the employer or union has taken discriminatory action against him or her for a reason described in section 42 may refer the matter to a safety and health officer.

Order

42.1(2) If a safety and health officer decides that an employer or union has taken discriminatory action against a worker for a reason described in section 42, the officer shall make an order requiring the employer or union to do one or more of the following:

- (a) stop the discriminatory action;
- (b) reinstate the worker to his or her former employment on the same terms and conditions on which the worker was formerly employed;
- (c) pay the worker any wages the worker would have earned had he or she not been wrongfully discriminated against and compensate the worker for loss of any benefits;
- (d) remove any reprimand or other reference to the matter from any employment records the employer maintains about the worker.

Officer to advise if no discriminatory action

42.1(3) If a safety and health officer decides that no discriminatory action was taken against a worker for a reason described in section 42, the officer shall inform the worker in writing of the reasons for that decision.

Onus on employer or union

42.1(4) If, in a prosecution or other proceeding under this Act, a worker establishes

- (a) that discriminatory action was taken against him or her; and
- (b) that the worker conducted himself or herself in a manner described in section 42;

it shall be presumed that the discriminatory action was taken because of the worker's conduct. The onus is then on the employer or union to prove that the decision to take the discriminatory action was not influenced by the conduct.

Court order to reinstate, etc.

42.1(5) If an employer or union is convicted of taking discriminatory action against a worker contrary to this Act, the convicting justice shall order the employer or union to do one or more of the following:

- (a) stop the discriminatory action;
- (b) reinstate the worker to his or her former employment on the same terms and conditions on which the worker was formerly employed;
- (c) pay the worker any wages the worker would have earned had he or she not been wrongfully discriminated against and compensate the worker for loss of any benefits;
- (d) remove any reprimand or other reference to the matter from any employment records the employer maintains about the worker.

S.M. 2002, c. 33, s. 34.

RIGHT TO REFUSE DANGEROUS WORK

Right to refuse dangerous work

43(1) Subject to this section, a worker may refuse to work or do particular work at a workplace if he or she believes on reasonable grounds that the work constitutes a danger to his or her safety or health or to the safety or health of another worker or another person.

Reporting the refusal

43(2) A worker who refuses to work or do particular work under subsection (1) shall promptly report the refusal and the reasons for it to his or her employer or immediate supervisor, or to any other person in charge at the workplace.

Inspecting dangerous conditions

43(3) If the employer does not remedy the dangerous condition immediately, the person who receives the report of refusal to work, or a person designated by that person, shall immediately inspect the dangerous condition in the presence of the worker and one of the following persons:

- (a) if there is a committee under section 40, the worker co-chairperson of the committee or, if that person is unavailable, a committee member who represents workers;
- (b) if there is a representative designated under section 41, that representative or, if he or she is unavailable, another worker selected by the worker refusing to do the work;
- (c) if there is no committee or representative, another worker selected by the worker who is refusing to work.

Remedial action

43(4) The person required to inspect the dangerous condition shall take any action necessary to remedy any dangerous condition, or ensure that such action is taken.

Worker may continue to refuse

43(5) Until the dangerous condition is remedied, the worker who reported it may continue to refuse to work or do particular work.

Other workers not to be assigned

43(6) When a worker has refused to work or do particular work under subsection (1), the employer shall not request or assign another worker to do the work unless

- (a) the employer has advised the other worker, in writing, of
 - (i) the first worker's refusal,
 - (ii) the reasons for the refusal,
 - (iii) the other worker's right to refuse dangerous work under this section, and
 - (iv) the reason why, in the opinion of the employer, the work does not constitute a danger to the safety or health of the other worker, another worker or any person;
- (b) where practicable, the first worker has advised the other worker of
 - (i) the first worker's refusal, and
 - (ii) the reasons for the refusal; and
- (c) the actions required by subsections (3) and (4) have been taken.

S.M. 2002, c. 33, s. 34; S.M. 2013, c. 9, s. 22.

Report of dangerous condition to an officer

43.1(1) If the dangerous condition is not remedied after an inspection under subsection 43(3), any of the persons present during the inspection may notify a safety and health officer of the refusal to work and the reasons for it.

Investigation by officer

43.1(2) On receiving a notice under subsection (1), the officer shall investigate the matter and decide whether the work the worker has refused to do constitutes a danger to the safety or health of the worker or any other worker or person at the workplace.

Order by officer

43.1(3) If the officer decides that the work is dangerous, he or she shall

- (a) make a written report stating the officer's findings;
- (b) make any improvement order under section 26 or stop work order under section 36 that the officer considers necessary or advisable; and
- (c) give a copy of the report and any order to
 - (i) the worker who refused to do the work,
 - (ii) the employer, and
 - (iii) the co-chairpersons of the committee, or the representative.

Decision not to issue an order

43.1(4) If the officer decides that the work is not dangerous, he or she shall, in writing,

- (a) inform the employer and the worker of that decision; and
- (b) inform the worker that he or she is no longer entitled to refuse to do the work.

S.M. 2002, c. 33, s. 34; S.M. 2013, c. 9, s. 23.

Worker entitled to be paid despite refusal

43.2 If a worker has refused to work or do particular work under section 43,

- (a) the worker is entitled to the same wages and benefits that he or she would have received had the worker continued to work; and
- (b) the employer may re-assign the worker temporarily to alternate work.

S.M. 2002, c. 33, s. 34.

Employer not to make worker work in unsafe conditions

43.3(1) When the employer at a workplace or his or her agent, or the supervisor or another person representing the employer at the workplace in a supervisory capacity, knows or ought to know of a condition at the workplace that is or is likely to be dangerous to the safety or health of a worker, he or she shall not require or permit any worker to do that work until the dangerous condition is remedied.

Employer may remedy dangerous condition

43.3(2) Subject to subsection 43(5), nothing in subsection (1) prevents the doing of any work or thing at a workplace that may be necessary to remedy a condition that is or is likely to be dangerous to the safety or health of a worker.

S.M. 2002, c. 33, s. 34.

EDUCATIONAL LEAVE

Educational leave

- 44(1)** Subject to this section, every employer at a workplace where there is a committee or a representative, must allow each member of the committee, the representative, or their respective designates, to take educational leave each year, without loss of pay or benefits, for the purpose of attending workplace safety and health training seminars, programs or courses of instruction
- (a) offered by the branch;
 - (b) approved by the committee; or
 - (c) provided for in the current collective bargaining agreement respecting the workers at the workplace.

Time allowed for educational leave

- 44(1.1)** The amount of time allowed for educational leave under subsection (1) is the greater of
- (a) 16 hours; and
 - (b) the number of hours the worker normally works during two shifts.

Total number of safety and health committee members

- 44(2)** The total number of safety and health committee members for whom the employer is required to provide educational leave in accordance with subsection (1) during any year is equal to the number of members constituting the normal size of the committee.

Pay while attending educational leave programming

- 44(2.1)** The employer must pay a committee member, representative or designate who attends a workplace safety and health training program referred to in subsection (1) at the worker's regular or premium pay, as applicable, for the greater of
- (a) the actual number of hours spent attending the training; and
 - (b) the number of hours the worker normally works during a normal shift.

Exception

- 44(2.2)** Subsection (1) does not apply to an employer on a construction project or an employer at a seasonal workplace as described in subclause 40(1)(a)(i).

Education program on construction sites

44(3) On a construction project, each employer who employs five or more workers on that project shall institute a safety and health education program at the worksite at which all workers shall attend without loss of pay or other benefits for a period or periods equivalent to 30 minutes every two weeks, of which no period shall be less than 15 minutes.

Education program at seasonal workplace

44(4) At a seasonal workplace as described in subclause 40(1)(a)(i), each employer must institute a safety and health education program at the workplace. All workers must attend the program without loss of pay or other benefits for a period or periods equivalent to 30 minutes every two weeks, of which no period may be less than 15 minutes, for the duration of the seasonal workplace.

S.M. 2002, c. 33, s. 36; S.M. 2013, c. 9, s. 24.

45 [Repealed]

S.M. 2002, c. 33, s. 37.

NEEDLES IN MEDICAL WORKPLACES

Use of safety-engineered needles

45.1(1) When hollow-bore or intravenous needles are used in a medical workplace, the employer must ensure

- (a) so far as is reasonably practicable, that workers use only safety-engineered needles; and
- (b) that safe work procedures and practices relating to the use of those safety-engineered needles are implemented in the workplace.

If safety-engineered needles not practicable

45.1(2) If it is not reasonably practicable to use safety-engineered needles in a medical workplace, the employer must ensure that safe work procedures and practices relating to the use of hollow-bore or intravenous needles are implemented in the workplace.

Procedures — needlestick injuries

45.1(3) The employer must develop procedures to be followed in a medical workplace when a worker suffers a needlestick injury, including instructions for the worker suffering the injury.

Investigation and report required

45.1(4) The employer must investigate and prepare a report on every needlestick injury to a worker in a medical workplace.

Definitions

45.1(5) The following definitions apply in this section.

“**medical workplace**” means

- (a) a hospital, a personal care home, a psychiatric facility, a medical clinic, a medical laboratory, a community health centre and CancerCare Manitoba;
- (b) a physician's office;
- (c) if prescribed by regulation, a registered dentist's office;
- (d) an ambulance as defined in *The Ambulance Services Act*; and
- (e) any other workplace where physical or mental health treatment or care is provided to a person. (« lieu de travail en milieu médical »)

"needlestick injury" means an injury caused by a hollow-bore or intravenous needle puncturing a person's skin or mucous membrane. (« blessure par piqûre d'aiguille »)

"safety-engineered needle" includes a shielded needle device, a retractable needle system and a needleless device. (« seringue conçue en vue d'un usage sécuritaire »)

S.M. 2005, c. 15, s. 2.

GENERAL PROVISIONS

Obtaining information

46 To obtain information that the director needs to perform duties or exercise powers under this Act or the regulations, the director may require a person to provide any information in the manner and within the time period that the director may specify.

S.M. 2002, c. 33, s. 38.

Order to conduct tests

46.1(1) The director may, by order, require an employer to do the following at the employer's expense:

- (a) have tests conducted by a person who has the professional knowledge, experience or qualifications specified by the director;
- (b) give the director a report or assessment prepared by that person;

and to do so in the manner and within the time period specified in the order.

Service of order

46.1(2) The order must be served on the employer personally or be sent by registered mail to the employer's last known address.

S.M. 2002, c. 33, s. 38.

Confidential information

48(1) No person shall disclose any information with respect to any manufacturing or trade secret obtained by him by virtue of the exercise of any power conferred by this Act, except for the purpose of administering this Act and the regulations, or as required by law.

Names to remain confidential

48(2) No person by whom information is obtained in confidence by virtue of any power conferred by this Act shall divulge the name of the informant to any person except for the purposes of this Act or the regulations.

Exemption from liability

49(1) No action lies or shall be instituted against any person whether in his public or private capacity, where the person is acting under the authority of this Act or the regulations for any loss or damage suffered by any person by reason of anything done or omitted to be done by him in good faith, in the exercise of the powers given to him by this Act or the regulations.

No exemption in case of negligence

49(2) Subsection (1) does not apply where the person exercising any of the powers given to him under this Act or the regulations is negligent in the performance thereof.

Officials cannot be compelled to testify

49.1 A safety and health officer, a person assisting a safety and health officer, the chief occupational medical officer, the director, or any other person acting under the authority of this Act or the regulations, is not a compellable witness in a civil action or proceeding — other than an inquest or inquiry under *The Fatality Inquiries Act* — respecting any document, information, or test obtained, received or made under this Act or the regulations, and may not be compelled to produce any such document.

Medical examinations and health surveillance

50(1) The chief occupational medical officer may carry out, or may arrange for another physician or other qualified person to carry out, any medical examinations or health surveillance of workers or former workers as he or she considers desirable for the purpose of administering this Act and the regulations. But no medical examination of a worker may be carried out without the worker's consent.

Examinations during working hours

50(2) Medical examinations shall, wherever reasonably practicable, be conducted during working hours without loss in pay to the worker being examined and the employer shall, if required by the physician or other qualified person, provide suitable accommodation for such examinations at the workplace, and otherwise facilitate the conduct of those examinations.

Health surveillance

50(3) Health surveillance during working hours must be conducted without loss of pay to the workers who participate. In addition, the employer shall facilitate and provide suitable accommodation at the workplace for health surveillance, if required to do so by the chief occupational medical officer or a physician or other qualified person.

S.M. 2002, c. 33, s. 41.

Reports

51(1) Every physician or other qualified person attending or consulted respecting a person who,

- (a) became ill or injured while employed at a workplace or while being otherwise engaged as a worker; or
- (b) who has been examined pursuant to section 50;

shall furnish to the chief occupational medical officer upon request of the officer such reports concerning the condition of the person as the chief occupational medical officer may require for the purposes of this Act and the regulations.

Reports by hospitals

51(2) Notwithstanding the provisions of any other Act, where a worker referred to in clause (1)(a) or (b) is, or has been, a patient in a hospital, the person in charge of the administrative affairs of that hospital shall furnish without charge to the chief occupational medical officer upon request such reports concerning the condition of the person as the chief occupational medical officer may require for the purposes of this Act and the regulations.

Information confidential

51(3) Unless disclosed in a form calculated to prevent the information from being identified as relating to a particular person or case or unless disclosed as required by law, any information obtained by the chief occupational medical officer pursuant to section 50 and this section shall not be disclosed without the consent of the person examined or attended.

Power to require alternative work

52 Where it appears to the director upon the advice of the chief occupational medical officer that a worker has been over-exposed to a harmful substance and that a temporary removal from the hazard will enable the worker to resume his usual work, the director may by order require the employer to provide without loss of pay to the worker temporary alternative work which in the opinion of the director is suitable, for such period of time as the director may specify.

Requirement of occupational health service

53(1) The minister may designate a workplace, or a class of workplaces, as requiring an occupational health service, having regard to the type of work being carried on therein, the number of workers employed thereat, and the degree or uncertainty of hazard thereof; and upon such designation, the employer shall cause an occupational health service to be established and maintained for the workplace in accordance with this section.

Minister may specify health services to be provided

53(2) The minister may specify the services that are to be provided by the occupational health service for any workplace, or for any class of workplaces designated under subsection (1).

Continued operation of health service

53(3) The establishment and continued operation of an occupational health service is subject to the approval of the minister.

ADMINISTRATIVE PENALTIES

Administrative penalty

53.1(1) If a person

- (a) has failed to comply with
 - (i) an improvement order within the period specified in the order, or
 - (ii) a prescribed provision of this Act or the regulations, and a safety and health officer is of the opinion that the failure involves, or is likely to involve, an imminent risk of serious physical or health injury to a worker or other person;
- (b) has failed to maintain compliance with an improvement order after initially complying with it;
- (c) has resumed an activity that previously was the subject of a stop work order which was discontinued because the person had complied with it; or

- (d) was ordered to take action under section 42.1 because the person took discriminatory action against a worker;

the officer shall provide evidence of the matter to the director.

Imposing a penalty

53.1(2) When the director determines that a person

- (a) has failed to comply with
 - (i) an improvement order within the period specified in the order, or
 - (ii) a prescribed provision of this Act or the regulations, and the director is of the opinion that the failure involves, or is likely to involve, an imminent risk of serious physical or health injury to a worker or other person;
- (b) has failed to maintain compliance with an improvement order after initially complying with it;
- (c) has resumed an activity that previously was the subject of a stop work order but was discontinued because the person had complied with it; or
- (d) was ordered to take action under section 42.1 because the person took discriminatory action against a worker;

the director may issue a notice in writing requiring the person to pay an administrative penalty in the amount set out in the notice.

When penalty may be imposed

53.1(3) Notice of an administrative penalty may be issued only after any period for appealing the matter that gave rise to the notice under subsection (2) has expired or, if an appeal has been filed, after a decision has been made on appeal.

Maximum amount

53.1(4) An administrative penalty may not exceed \$5,000.

Notice

53.1(5) A notice of administrative penalty must set out

- (a) the amount of the penalty determined in accordance with the regulations;
- (b) when and how the penalty must be paid; and
- (c) a statement that the person may appeal the matter to the board within 14 days after being served with the notice.

Serving the notice

53.1(6) A notice of administrative penalty must be served on the person required to pay the penalty. The notice may be served personally or may be sent by registered mail to the person's last known address.

Appeal to the board

53.1(7) Within 14 days after being served with a notice, the person required to pay the administrative penalty may appeal the matter to the board by sending the board a notice of the appeal together with reasons for the appeal. The requirement to pay the penalty is stayed until the board decides the matter.

Notice of hearing

53.1(8) On receiving a notice of appeal, the board shall

- (a) fix a date, time and place for hearing the appeal; and
- (b) give the person appealing, and the director, written notice of the hearing at least five days before the hearing date.

Decision of the board

53.1(9) After hearing the appeal, the board shall decide the matter and

- (a) confirm or revoke the administrative penalty; or
- (b) vary the amount of the penalty if the board considers that it was not established in accordance with the regulations.

Payment

53.1(10) Subject to an appeal under subsection (7), a person named in a notice of administrative penalty shall pay the amount of the penalty within 30 days after the notice is served. The government must use the amounts paid for the purpose of educating the public on matters relating to workplace safety and health.

Debt due to the government

53.1(11) If an administrative penalty is not paid within 30 days after notice of the penalty is served, or, if the penalty is appealed to the board, within 30 days after the board's decision, the amount of the penalty is a debt due to the government.

Certificate registered in court

53.1(12) The director may certify a debt referred to in subsection (11), or any part of such a debt that has not been paid. The certificate may be registered in the Court of Queen's Bench and, once registered, may be enforced as if it were a judgment of the Court.

No offence to be charged if penalty is paid

53.1(13) A person who pays an administrative penalty under this section may not be charged with an offence in respect of the matter that gave rise to the issuance of the notice of administrative penalty unless the matter continues after the penalty is paid.

Lien for debt

53.1(14) The government has, in addition to any other remedy it has for the recovery of a debt arising under this section, a lien and charge on every estate or interest in real property and personal property of the person required to pay the debt (referred to in this section as the “debtor”), including property acquired by the debtor after the debt arose.

Extent of security

53.1(15) The lien secures the payment of

- (a) the amount of the debt when the lien takes effect;
- (b) interest on the debt from the time the debt arose until it is paid in full, as determined under *The Financial Administration Act* and the regulations under that Act; and
- (c) costs reasonably incurred by the director
 - (i) for the registration and discharge of the lien, and
 - (ii) in retaking, holding, repairing, processing, preparing for disposition or disposing of property in respect of which the lien is registered.

When lien takes effect

53.1(16) The lien takes effect

- (a) in relation to the debtor’s interest in real property, when a certificate in respect of the lien is registered against specific lands of the debtor; and
- (b) in relation to the debtor’s personal property, when a financing statement in respect of the lien is registered in the Personal Property Registry.

Registration and enforcement of lien

53.1(17) Subsections 28(6) to (14) of *The Pension Benefits Act* apply, with necessary changes, to the registration and enforcement of a lien arising under this section as if

- (a) the references in those provisions to “employer” were references to the debtor under this section; and

- (b) the references in those provisions to “the superintendent” were references to the director under this Act.

S.M. 2002, c. 33, s. 42; S.M. 2013, c. 9, s. 25.

OFFENCES AND PENALTIES

Offences

54 Every person who

- (a) contravenes this Act or the regulations;
- (b) fails to comply with an order made under this Act or the regulations;
- (c) knowingly obstructs or makes a false statement to a safety and health officer engaged in the exercise or performance of his or her powers or duties; or
- (d) knowingly makes or causes to be made a false entry in any register, book, notice or other document to be kept by him under the Act or the regulations, or deletes or destroys or causes to be deleted or destroyed any true or proper entry in any such document;

is guilty of an offence and is liable on summary conviction to the penalties set out in section 55.

S.M. 2002, c. 33, s. 44.

Penalty

55(1) A person guilty of an offence is liable

- (a) for a first offence to a fine of not more than \$250,000. and, in the case of a continuing offence to a further fine not exceeding \$25,000. for each day during which the offence continues; and
- (b) for a second or subsequent offence to a fine of not more than \$500,000. and, in the case of a continuing offence to a further fine not exceeding \$50,000. for each day during which the offence continues.

55(2) [Repealed] S.M. 2002, c. 33, s. 45.

Additional penalty

55(3) Where a person is convicted for an offence under this Act, in addition to the penalties set out in subsection (1), he may be imprisoned for a term not exceeding six months.

Further penalty

55(4) If a person is convicted of an offence for a contravention of subsection 43.3(1), he or she shall not work in a supervisory capacity at any workplace for a six month period after the date of conviction.

Time limit for prosecution

55(5) A prosecution under this Act may be commenced not later than two years after the day the alleged offence was committed.

S.M. 1997, c. 32, s. 2; S.M. 2002, c. 33, s. 45; S.M. 2010, c. 3, s. 2.

Additional penalties

55.1(1) When a person is convicted of an offence under this Act, the court may, having regard to the nature of the offence and the circumstances surrounding its commission, order the offender to pay to the minister an amount that the government must use for the purpose of educating the public on matters relating to workplace safety and health. Such a penalty may be required in addition to any other penalty that may be imposed under this Act.

Limit

55.1(2) The total of

- (a) any additional amount required to be paid under subsection (1); and
- (b) any penalty required to be paid under section 55;

must not exceed the amount of the maximum penalty for which the offender could be liable under section 55.

S.M. 2002, c. 33, s. 45.

Offences by directors, etc., of corporations

56 Where a corporation commits an offence under this Act, any officer, director or agent of the corporation, who directed, authorized, assented to, acquiesced in or participated in the commission of the offence is a party to and guilty of the offence and liable, on summary conviction, to the penalty provided for the offence.

Onus

57(1) In any proceedings for an offence under any of the provisions of this Act or regulations consisting of a failure to comply with a duty or requirement to do something so far as is practicable or so far as is reasonably practicable, or to use the best practicable means to do something, it shall be for the accused to prove that it was not practicable or not reasonably practicable to do more than was in fact done to satisfy the duty or requirement, or that there was no better practicable means than was in fact used to satisfy the duty or requirement.

Person deemed to be employer

57(2) Where a person is charged as an employer in respect of an offence under this Act he shall be deemed to be an employer within the meaning of this Act unless it is otherwise proven.

Application of subsection (1)

57(3) Subsection (1) applies with such modifications as the circumstances require to any appeal involving an improvement order or a stop work order.

S.M. 2002, c. 33, s. 46.

Laying of information

58 Any person may lay an information in respect of any offence or alleged offence against this Act or the regulations.

59 [Repealed]

S.M. 2002, c. 33, s. 47.

Manitoba Regulation 212/2011

Operation of Mines Regulation

NOTICE

All persons making use of this consolidation are reminded that it has no legislative sanction; that the amendments have been embodied only for convenience of reference; and that the original text should be consulted for all purposes of interpreting and applying the law.



TABLE OF CONTENTS

PART 1

INTRODUCTORY PROVISIONS

- 1.1-1.2 Definitions and Application
- 1.3 Publications, codes and standards
- 1.4 Substitutions – material, arrangements
- 1.5-1.6 Consultation re safe work procedures
- 1.7 Notices and information

PART 2

DUTIES OF EMPLOYERS, SUPERVISORS AND WORKERS

- 2.1-2.3 Duties of employers
- 2.4 Duties of supervisors
- 2.5-2.6 Duty of workers
- 2.7 Age of workers
- 2.8 Workplace safety and health committees and representatives
- 2.9 Persons who may accompany inspector
- 2.10 Monthly report on persons employed, medical incidents etc.
- 2.11-2.14 Serious incidents
- 2.15 Application

PART 3

OPENING, ALTERING OR ABANDONING MINES, TAILINGS PONDS AND RETENTION PONDS

- 3.1 Notice of opening or suspension of mine
- 3.2 Requirements re mining near property boundary
- 3.3 Employer to give notice of changes in activities
- 3.4-3.9 Abandoning or suspending mining
- 3.10 Requirements for tailings dam
- 3.11 Quality control and quality assurance

PART 4

GENERAL WORKPLACE REQUIREMENTS

- 4.1 Protection from overhead operations
- 4.2 Chute bars
- 4.3 Mucking
- 4.4-4.6 Personal protective equipment
- 4.7 Fall protection
- 4.8 Damaging or altering safety equipment prohibited
- 4.9 Alcohol and drugs prohibited
- 4.10-4.12 Sanitary facilities and lunchrooms
- 4.13-4.15 First aid
- 4.16 Workplace environment
- 4.17-4.19 Hazardous substances or agents
- 4.20-4.22 Health surveillance program
- 4.23 Dusty operations
- 4.24 Lighting, including cap lights
- 4.25 Thermal environment
- 4.26 Cranes and derricks
- 4.27 Requirements re mobile equipment

PART 5

EMERGENCY PREPAREDNESS AND FIRE PROTECTION

- 5.1 Emergency procedures underground
- 5.2 Emergency exits from underground
- 5.3-5.4 Refuge and mine rescue stations
- 5.5 Building or hoist near mine entrance
- 5.6 Fire doors
- 5.7 Boilers, engines and compressors near entrance to the underground workings
- 5.8 Compressors underground
- 5.9 Noncombustible materials for construction underground
- 5.10 -5.11 Fire safety
 - 5.12 Storage of flammable material
- 5.13-5.17 Storage and use of fuel underground
 - 5.18 Combustible refuse
 - 5.19 Welding and cutting underground or near underground
 - 5.20 Fires underground
 - 5.21 Emergency procedures on surface
 - 5.22 Fire protection equipment
 - 5.23 No smoking areas
- 5.24-5.26 Compressed gas cylinders

PART 6

CARE AND USE OF EXPLOSIVES

- 6.1-6.3 General
- 6.4 Report of dangerous act or occurrence
- 6.5 Removal of explosives from mine
- 6.6 Prohibition re warming explosives
- 6.7-6.9 Magazines
- 6.10 Primers
- 6.11 Safety fuses
- 6.12-6.16 Blasting certificates
- 6.17-6.30 Blasting operations
- 6.31-6.44 Storage and use – underground
- 6.45-6.52 Storage and use – surface
- SCHEDULE A: Table of distances

PART 7

REMOTE CONTROLLED EQUIPMENT

- 7.1 Definitions
- 7.2 Safe work procedures
- 7.3-7.8 Requirements re remote controlled equipment and systems
- 7.9 Worker not to be tethered

PART 8

PROTECTION NEAR MACHINERY

- 8.1 Application
- 8.2 Entry to certain places prohibited
- 8.3-8.4 Protection near machinery
- 8.5 Counterweights
- 8.6 Fuelling of gas engine
- 8.7 Exhaust from internal combustion engine
- 8.8 Frogs and guard rails
- 8.9 Railway track approaches
- 8.10 Bunker, hopper, storage bin, stockpile
- 8.11 Guarding of hazards and potential hazards

PART 9

CONVEYORS

- 9.1 Fire protection
- 9.2 Riding on conveyor prohibited
- 9.3 Cleaning and servicing moving conveyor
- 9.4-9.5 Emergency stops

PART 10

PROTECTION FROM MOLTEN MATERIAL

- 10.1 Definition of “deleterious substance”
- 10.2-10.3 Moulds, ladles and pots
- 10.4-10.7 Water and deleterious substances
- 10.8 Design of vessels containing molten material
- 10.9 Proximity of personnel
- 10.10 Surveillance cameras
- 10.11 Overhead crane cabs

PART 11

USE OF ELECTRICITY

- 11.1-11.3 Electrical standards
- 11.4 Plans and specifications
- 11.5 Special acceptance inspection
- 11.6 Equivalent standard
- 11.7-11.10 Safe work procedures
- 11.11 Signs to be posted
- 11.12 Armoured cable to be grounded
- 11.13 Ground rods
- 11.14 Bonding of cable trays
- 11.15 Sprinklered equipment
- 11.16 Circuit breakers for crane

PART 12

OPEN PITS AND QUARRIES

- 12.1-12.4 Open pit and quarry workings
- 12.5 Examining the face
- 12.6 Fall protection
- 12.7 Undercutting face
- 12.8 Working unconsolidated material
- 12.9 Dumping from mobile equipment
- 12.10 Haul roads
- 12.11 Rotary drilling
- 12.12 Parking powered mobile equipment
- 12.13 Loading trucks
- 12.14-12.16 Electrical cables and lights
- 12.17 Abandoning the heading

PART 13

SAFETY PRECAUTIONS UNDERGROUND

- 13.1 Hazards to be identified
- 13.2 Unventilated or unsafe mine area
- 13.3-13.4 Material slides and chutes
- 13.5 Mucking
- 13.6 Use of compressed air driven or railbound loaders
- 13.7 Water accumulation
- 13.8 Access to hang ups
- 13.9 Second means of exit
- 13.10 Duty of employer re top of openings
- 13.11 Plotting of drill holes
- 13.12 Grouting of diamond drill holes
- 13.13 Gas flows underground

PART 14

GROUND CONTROL

- 14.1 Ground conditions
- 14.2 Scaling procedures
- 14.3 Ground support procedures
- 14.4 Rockbolts

PART 15

MOBILE EQUIPMENT UNDERGROUND

- 15.1 Internal combustion engines underground
- 15.2 Operation of powered mobile equipment
- 15.3 Rail bound equipment
- 15.4 Riding on powered mobile equipment
- 15.5 Audible warning devices
- 15.6 Wheel chocks
- 15.7 Small utility mobile equipment
- 15.8 Braking systems
- 15.9 Rollover protective structure
- 15.10 Canopy to protect operator
- 15.11 Procedure for working from bucket of LHD
- 15.12-15.13 Clearances
- 15.14 Safety stations
- 15.15 Ramps
- 15.16 Regulation of vehicle traffic
- 15.17 Approved testing laboratories

PART 16

HANDLING WATER UNDERGROUND

- 16.1 Definitions
- 16.2 Removal of water
- 16.3 Boreholes in advance of working face
- 16.4 Location on mine plans
- 16.5 Placement of fill in mine working

PART 17

VENTILATION OF WORKINGS UNDERGROUND

- 17.1 Ventilation of an underground mine
- 17.2 Auxiliary ventilation
- 17.3 Blasting area to be ventilated
- 17.4 System for conditioning mine air
- 17.5 Fire protection for ventilating system

PART 18

UNDERGROUND TRAVELWAYS, PLATFORMS AND LADDERWAYS

- 18.1-18.2 Application and definitions
- 18.3 Safe access and egress
- 18.4-18.5 Elevated platforms and stagings
- 18.6-18.14 Stairways and ladderways

PART 19

RAISES

- 19.1 Steeply inclined raises
- 19.2 Cable lift raise platform
- 19.3 Design of raise climber
- 19.4 Load rating, brakes and communication
- 19.5 Stop block
- 19.6 Headcover
- 19.7 Electric-powered
- 19.8 Emergency procedure
- 19.9 First aid kit
- 19.10 Self rescuers
- 19.11-19.13 Inspections of raise climber
- 19.14 Operator to be competent
- 19.15 Raise cross-section
- 19.16 Installation details to be provided
- 19.17 Raise climber as only means of exit

PART 20

SHAFT SINKING AND REHABILITATION

- 20.1 Safe work procedures
- 20.2 Design of shaft sinking equipment
- 20.3 Shaft installations
- 20.4-20.7 Use of buckets
- 20.8 Work at different elevations
- 20.9 Shaft mucking machine

PART 21

SHAFT REQUIREMENTS

- 21.1 Transportation of persons
- 21.2 Record books
- 21.3 Shaft requirements
- 21.4 Compartment lining at levels

PART 22

SHAFT EXAMINATION AND SAFETY PRECAUTIONS

- 22.1 Shaft inspection
- 22.2 Protection of workers
- 22.3-22.5 Staging and work platforms

PART 23

CAGES AND SKIPS

- 23.1 Construction of cages and skips
- 23.2 Certificate of load capacity
- 23.3 Free fall tests
- 23.4 Regular examination of safety catches
- 23.5 Chairing devices
- 23.6 Hoisting persons
- 23.7 Shaft conveyances
- 23.8 Operation of conveyance
- 23.9 Accumulation of water in the shaft

PART 24

HOIST ROPE REQUIREMENTS

- 24.1 Meaning of "SABS"
- 24.2 Rope certificate
- 24.3 Rope record book
- 24.4 Factors of safety for shaft ropes on a drum hoist
- 24.5 Factor of safety for shaft ropes on friction hoists
- 24.6 Rope dressing treatment
- 24.7 Rope attachment
- 24.8 Examination and test of attachments
- 24.9 Operation of drum hoist
- 24.10 Shaft rope standards

PART 25

EXAMINATION AND TESTING OF SHAFT ROPES

- 25.1 Breaking tests of shaft ropes
- 25.2 Non-destructive testing
- 25.3 Test certificate
- 25.4 Maintenance of shaft ropes
- 25.5 Rope clearance
- 25.6 Examination of shaft ropes

PART 26

OPERATION OF MINE HOISTS

- 26.1 Requirements: mine hoist operator
- 26.2 Hours of hoist operator
- 26.3 Duties of hoist operator
- 26.4 Further duties of hoist operator
- 26.5 Testing before unclutching
- 26.6 Unclutched drums
- 26.7 Brakes
- 26.8 Cancellation of certificate
- 26.9 Reconsideration

PART 27

HOISTING SIGNALS AND COMMUNICATIONS

- 27.1 Signalling system for hoisting in shaft
- 27.2 Shaft conveyance call system
- 27.3 Voice communication system
- 27.4 Code of signals
- 27.5 Signals when conveyance stops
- 27.6 Action on 3-bell signal
- 27.7 Authority to give signals or operate mine hoist
- 27.8 Emergency signal line
- 27.9 Communication with hoist operator

PART 28

MINE HOIST – EXAMINATION AND RECORDS

- 28.1 Duties of hoist operator
- 28.2 Log book entries by hoist operator
- 28.3 Safe work procedures
- 28.4 Examination of mechanical parts
- 28.5 Defects to be reported immediately
- 28.6 Adjustment of mine hoist
- 28.7 Machinery record book

PART 29

MINE HOIST REQUIREMENTS

- 29.1 Head and deflection sheaves
- 29.2 Installation and loading
- 29.3 Proving tests
- 29.4 Mine hoist drums
- 29.5 Location of mine hoist and head sheaves
- 29.6 Locking devices
- 29.7 Brakes
- 29.8 Mine hoist with clutched drum
- 29.9 Indicator

PART 30

MINE HOIST – CONTROL AND SAFETY DEVICES

- 30.1 Mine hoist safety devices
- 30.2 Mine hoist safety control devices
- 30.3 Intermediate obstructions
- 30.4 Skips for hoisting persons
- 30.5 Electric mine hoists
- 30.6 Friction hoists
- 30.7 Automatic mine hoist controls

PART 31

REPEAL AND COMING INTO FORCE

- 31.1 Repeal
- 31.2 Coming into force

PART 1
INTRODUCTORY PROVISIONS

Definitions

1.1 The following definitions apply in this regulation.

“abandoned”, in relation to a mine, means a mine in respect of which the right to mine has been forfeited, cancelled, revoked or otherwise terminated. (« abandonné »)

“Act” means *The Workplace Safety and Health Act*. (« Loi »)

“authorized” means authorized by the employer at a workplace to perform a specified duty or act, unless the context requires a different meaning. (« autorisé »)

“competent” means a person having

- (a) the ability through experience and training to do a specified job in a safe and proper manner;
- (b) when applicable, the qualifications required by law;
- (c) knowledge of such language as may be necessary to perform safely all duties required; and
- (d) knowledge of potential or actual danger to health or safety in the workplace. (« compétent »)

“detonator” means a device used to detonate a charge of explosive and includes a blasting cap. (« détonateur »)

“discontinued” means a mine or part of a mine at which no mining is taking place, but the mine or part of a mine is not abandoned. (« interrompu »)

“drift” means a generally horizontal excavation underground that is more than one metre long. (« galerie »)

“drum hoist” means a mine hoist where the rope is wound on a drum or drums. (« tambour d'extraction »)

“face” means the rock or stone surface exposed by blasting or excavation of unconsolidated material. (« front de taille »)

“factor of safety” means the ratio of the ultimate breaking strength of a material or thing to the force exerted on or against it. (« facteur de sécurité »)

“friction hoist” means a mine hoist where the driving force between the drum and rope or ropes supporting the shaft conveyance is obtained through friction. (« machine à poulie d’adhérence »)

“haulageway” means a drift underground, the primary function of which is the transportation of workers or materials by means of trains, trucks or load-haul-dump equipment. (« voie de roulage »)

“haul road” means a road constructed at ground level to provide for the safe movement of persons, powered mobile equipment and mine products. (« chemin de débardage »)

“hazardous” means, in relation to a substance or physical agent, a substance or physical agent having one or more of the following characteristics:

- (a) a flash point below 60° C (closed cup);
- (b) subject to spontaneous heating;
- (c) a threshold limit value
 - (i) in the case of a gas or vapour, below 500 ppm,
 - (ii) in the case of fumes, below 500 mg/m³, and
 - (iii) in the case of dust, below 10 mg/m³ of total dust less than 1% quartz, or 5 mg/m³ respirable dust;
- (d) a single dose, oral LD50 (lethal to 50 % of population) below 500 mg/kg;
- (e) subject to polymerization with the release of large amounts of energy;
- (f) a strong oxidizing or reducing agent;
- (g) capable of causing first degree burns to human skin in short time exposure or being systemically toxic on contact with human skin;
- (h) in the course of normal operations is capable of
 - (i) producing dust, gas, fume, vapour, mist or smoke that has a characteristic set out in clauses (a) to (g), or
 - (ii) causing physiological impairment due to noise, vibration, heat, ionizing radiation, ultraviolet radiation, microwaves or lasers. (« dangereux »)

“hoist operator” means the person who operates a mine hoist to transport persons or materials in a shaft. (« opérateur d’appareil de levage »)

“hoist rope” means any rope attached to a shaft conveyance. (« câble d’extraction »)

“mine” means an opening or excavation in the ground or an open pit or quarry that is established or maintained for the purpose of mining and includes surface diamond drilling and any of the following that are located at, or within reasonable proximity to, the site of the opening, excavation, open pit, quarry or diamond drilling:

- (a) a machine, plant, building, structure, stockpile, storage facility, waste dump or tailings impoundment area, whether above or below ground, that is used for or in connection with mining;
- (b) a crusher, mill, concentrator, smelter, refinery, processing plant or place that is used for or in connection with washing, crushing, sifting, drying, oxidizing, reducing, leaching, roasting, smelting, refining, treating or conducting research on mineral bearing substances. (« mine »)

“mine hoist” means a drum hoist or a friction hoist used to transport persons or materials in a shaft. (« appareil de levage »)

“mine hoisting plant” means the hoist, prime mover, transmission equipment, head frame, sheaves, ropes, shaft, shaft conveyances, shaft sinking equipment, shaft furnishings, hoist controls, counterweight, signalling and communications equipment and any other equipment used in connection with a mine hoist for an underground mine. (« installation d’extraction minière »)

“mines inspector” means a person appointed as a mines inspector by the director. (« inspecteur des mines »)

“mining” has the same meaning as in *The Mines and Minerals Act*. (« exploitation »)

“misfire” means a mishole or a blasting operation that has not been successfully detonated. (« raté »)

“mishole” means the remnant of a blasted hole containing an explosive that has not been successfully detonated. (« trou de mine raté »)

“mobile equipment” means a vehicle or equipment, other than equipment that moves on rails, that

- (a) moves under its own source of power or while attached to a source of power; and
 - (b) is used to
 - (i) manipulate or move material,
 - (ii) move workers, or
 - (iii) provide a powered aerial device for workers.
- (« matériel mobile »)

“muck” means unconsolidated material created as a result of blasting or excavation. (« déblais »)

“mucking” means the act of removing muck. (« chargement de déblais »)

“mucking face” means a face that has muck against it and where mucking is occurring. (« front de taille avec déblais »)

“near miss” means an incident that had the potential to cause serious bodily injury or illness to a worker, but no bodily injury or illness occurred as a result of the incident. (« accident évité de justesse »)

“noncombustible” means, in relation to an elementary building material, that the material conforms to Underwriters Laboratories of Canada - CAN4-S114 *Standard Method of Test for Determination of Non-Combustibility in Building Materials*. (« incombustible »)

“open pit” means a surface mine for excavating rock as a source of metal or metalloid. (« minière »)

“operating shift” means a shift where workers are present. (« poste de travail »)

“personnel carrier” means mobile equipment that is used primarily to transport people. (« véhicule de transport du personnel »)

“powered mobile equipment” means a self-propelled machine or combination of machines, including a prime mover or a vehicle, used to

- (a) manipulate or move material;
- (b) move workers; or
- (c) provide a powered aerial device for workers. (« matériel mobile motorisé »)

“primer” means an assembly consisting of a detonator and a cartridge of explosive. (« amorce »)

“professional engineer” means a professional engineer as defined in *The Engineering and Geoscientific Professions Act*, who is competent in the work concerned. (« ingénieur »)

“quarry” means a surface mine for excavating quarry mineral. (« carrière »)

“quarry mineral” includes

- (a) sand, gravel, clay, shale, kaolin, bentonite, gypsum, salt, peat, peat moss, coal, asbestos or gems; and
- (b) rock or stone that is used for a purpose other than as a source of metal or metalloid, but is exclusive of civil works such as roads, bridges and dams. (« minéraux de carrière »)

“raise climber” a manned, mechanized and powered piece of equipment used for transporting workers and acting as a work platform for driving raises. (« griffes de montage »)

“ramp” means a haulageway that is longer than 30 m, has a gradient greater than 7%, and is primarily used for the operation of mobile equipment. (« fendue »)

“rubbing rope” means a shaft rope used as a conveyance guide. (« câble de guidage »)

“shaft conveyance” includes a cage, skip, bucket, work platform, galloway and any other device that is used to transport people, material or both people and material in a shaft. (« appareil de transport »)

“shift” means a time period during which workers may or may not be present. (« poste »)

“tail rope” means a hoist rope that is attached to the bottom of two conveyances in balance using a friction hoist. (« câble d'équilibre »)

“trace” means, in relation to a drilled hole, the part of a drilled hole that remains on the back, side or floor of an excavation after the hole is blasted, but does not include a bootleg. (« trace »)

1(2) The following terms have the same meaning in this regulation as they have in the *Workplace Safety and Health Regulation, Manitoba Regulation 217/2006*:

"aerial device"

"ANSI"

"asbestos"

"biological substance"

"blaster"

"bootleg"

"CAN"

"CGSB"

"co-chairperson"

"combustible liquid"

"CSA"

"explosive"

"fall arrest system"

"fall protection system"

"flammable liquid"

"full body harness"

"hot work"

"manufacturer's specifications"

"occupational exposure limit"

"robot"

"threshold limit value"

"travel restraint system"

Application

1.2(1) This regulation applies to a mine.

1.2(2) For certainty, the *Workplace Safety and Health Regulation, Manitoba Regulation 217/2006*, also applies to a mine, but if there is a conflict between a provision of this regulation and a provision of *The Workplace Safety and Health Regulation*, the provision of this regulation prevails.

Conformity to publications, codes and standards

1.3(1) If this regulation requires a tool, machine or other thing to comply with the requirements of a publication, code or standard, the tool, machine or thing must comply with the requirements of the most recent edition of the publication, code or standard in existence at the time it was manufactured.

- 1.3(2)** If this regulation requires a person to perform work or other services in accordance with the requirements of a publication, code or standard, the person must perform the work or services in accordance with the requirements of the most recent edition of the publication, code or standard.
- 1.3(3)** If this regulation requires a person to comply with a publication, code or standard, the person may, as an alternative, comply with another equivalent publication, code or standard that the director has approved in writing.
- 1.3(4)** If there is an inconsistency between a requirement under this regulation and a requirement contained in a publication, code or standard referenced in this regulation, the provision of this regulation prevails.

Substitution for required material, arrangement

- 1.4(1)** If a provision of this regulation requires a particular composition, design, size or arrangement of any material, procedure or thing to be used at a mine, the provision is deemed to have been complied with if the composition, design, size or arrangement of the material, procedure or thing that is used affords equal or better protection for the safety or health of workers.
- 1.4(2)** Subsection (1) applies in respect of a substitution if
- (a) the substitution used or followed at the mine has been
 - (i) certified by a professional engineer, and
 - (ii) provided to a mines inspector; and
 - (b) the committee is consulted in respect of the substitution.

Consultation re safe work procedures

- 1.5** If under a provision of this regulation, an employer is required to develop and implement safe work procedures, the employer must consult with the committee and a worker competent in the subject matter of the safe work procedures.

Consultation if no committee

- 1.6** If a provision of this regulation requires the employer to consult with the committee and there is no committee, the employer must consult with
- (a) the representative; or
 - (b) if there is no representative, the workers at the mine.

Notices and information

- 1.7(1)** If a provision of this regulation requires a notice or information to be given to the committee, the notice or information must be given to each of the co-chairpersons or their designates.
- 1.7(2)** If a committee has not been established, the notice or information must be given to the representative.
- 1.7(3)** If there is no representative, the notice or information must be posted in a prominent place accessible to the workers at the workplace concerned with the subject matter of the notice or information.

PART 2
DUTIES OF EMPLOYERS, SUPERVISORS AND WORKERS

Duties of employers

- 2.1** The employer must
- (a) take all reasonable measures to ensure that a worker is competent to perform the work that the worker is assigned;
 - (b) if requested by a worker, make available to the worker the results of any tests made at the mine that could affect the safety and health of the worker; and
 - (c) if requested by a committee member or a representative, make available to the committee or the representative the results of any tests made at the mine that could affect the safety and health of a worker.

Further duties of employers

- 2.2** The employer must
- (a) when a worker or other person is underground at a mine, ensure that
 - (i) a supervisor is present at the mine, and
 - (ii) there is an effective system of communication that can be used by the worker or person underground and a person on surface at the mine in order to initiate the emergency procedures prescribed in section 5.1, if required;
 - (b) ensure that, on each shift, each worker or other person is checked into and checked out of the underground workings of the mine;
 - (c) maintain a shift log containing a report of any unsafe or abnormal condition at the mine that has not been corrected during the shift on which the unsafe or abnormal condition is found or reported;
 - (d) report to each worker on an oncoming shift of the existence of any known unsafe or abnormal condition that could affect the safety and health of the worker;
 - (e) implement measures to correct any unsafe or abnormal condition reported under clause (c);
 - (f) ensure that the measures implemented under clause (e) are reported in the shift log, and that the accuracy of the shift log is verified by the supervisor; and

- (g) ensure all workers are protected while the measures under clause (e) are implemented.

Employer to ensure supervisor inspects and takes corrective actions

2.3 The employer must ensure that a supervisor

- (a) examines all parts of the mine where work is being performed during each shift;
- (b) examines all other sections of the mine that are not barricaded, as required under subsection 13.2(1), at least once a week; and
- (c) initiates and ensures the completion of any action necessary to correct unsafe conditions noted during the examinations.

Duties of supervisors

2.4(1) A supervisor at a mine must take all reasonable measures to ensure that activities under the supervisor's direction and control are performed in compliance with the Act and the regulations and by competent persons, or by trainees who are under the supervision of competent persons.

2.4(2) The supervisor on an on-coming shift must

- (a) read and countersign the shift log entries referred to in clause 2.2(c);
- (b) warn the workers on the on-coming shift of the unsafe or abnormal condition referred to in clause 2.2(c) at the start of their shift;
- (c) ensure that persons are protected against inadvertently entering the area where the unsafe or abnormal condition exists; and
- (d) ensure that corrective measures that can be taken during the shift are taken.

Duty of workers

2.5 A worker who is aware of an unsafe condition that exists in any area of a mine must report the unsafe condition to the employer.

Workers working alone

2.6(1) An employer must not permit a worker to work alone underground at a mine where the absence of direct communication with another person will increase the potential for or severity of an injury.

- 2.6(2)** An employer must ensure that a worker who performs work alone and who does not have direct communication with another person makes contact, at least once every two hours, with a supervisor or a person authorized by the supervisor.
- 2.6(3)** If it is not practicable for the worker to make contact in accordance with subsection (2), and the location of the worker is not known to the employer at all times, the employer must assess the conditions and develop and implement safe work procedures for
- (a) making contact between the worker and the supervisor or person authorized by the supervisor; and
 - (b) initiating emergency procedures.
- 2.6(4)** The employer must train workers in the safe work procedures referred to in subsection (3) and ensure that workers comply with the safe work procedures.

Age of workers

- 2.7** An employer must not employ or permit the employment of any person under the age of 18
- (a) underground at a mine; or
 - (b) at the face of an open pit mine or a quarry, but excluding quarrying in respect of peat.

Workplace safety and health committees and representatives

- 2.8(1)** The committee for a mine must meet at regular intervals not exceeding one month.
- 2.8(2)** The employer at a mine must ensure that the minutes of each committee meeting are recorded, posted on the bulletin board and distributed within one week to
- (a) all committee members; and
 - (b) the division.
- 2.8(3)** For the purpose of ensuring the proper functioning or to provide information or education concerning workplace safety and health, a mines inspector may call a special meeting of
- (a) a committee;
 - (b) several committees jointly;
 - (c) the co-chairpersons of one or more committees; or
 - (d) one or more representatives.

Persons who may accompany inspector

- 2.9(1)** On an inspection of a mine, a mines inspector may be accompanied by a designate of the employer. If such a request is received, the employer must ensure that a person is designated to accompany the inspector.
- 2.9(2)** During an inspection of a mine, a mines inspector may be accompanied by the worker co-chairperson of the committee or a designate of the co-chairperson.

Monthly report on persons employed, medical incidents etc.

- 2.10(1)** For each month, the employer must report the following to a mines inspector and to the committee, in a form acceptable to the director:
- (a) the number of persons employed at the mine;
 - (b) any incident at the mine that resulted in an injury for which medical treatment was provided and a new claim established and paid for by the Workers Compensation Board to a person;
 - (c) each case where first aid was provided to a worker.
- 2.10(2)** A report under subsection (1) must be provided within 30 days of the end of the month to which the report relates.

Notice in cases of serious injury or incident

- 2.11(1)** If an incident or dangerous occurrence occurs at a mine, the employer must notify a mines inspector and the committee
- (a) immediately, in the event of an incident or dangerous occurrence that results in
 - (i) loss of life to a person or an injury to a person that may reasonably be expected to cause or contribute to the person's loss of life, or
 - (ii) any of the following serious bodily injuries to a person:
 - (A) a fracture of the skull, spine, pelvis, arm, leg, hand or foot,
 - (B) amputation of an arm, leg, hand, foot, finger or toe,
 - (C) extensive second or third degree burns,
 - (D) permanent or temporary loss of sight,
 - (E) a serious internal hemorrhage,
 - (F) an injury resulting from electrical contact,
 - (G) an injury resulting in a person being rendered unconscious,

- (H) an injury caused directly or indirectly by an explosive,
 - (I) any other injury likely to cause permanent disability; or
- (b) within 24 hours of the happening of the incident or dangerous occurrence, in the event of
- (i) an incident involving a hoist, sheave, hoisting rope, shaft conveyance, shaft, shaft timbering or headframe structure,
 - (ii) an inrush of water, slime or other wet material from old workings or otherwise,
 - (iii) a failure of an underground dam or bulkhead, as defined in section 16.1,
 - (iv) a fire below ground or a fire above ground if it endangers a worker or an entrance to the mine or causes the loss of or serious damage to a structure of at the mine,
 - (v) an electrical equipment failure or incident that causes or threatens to cause injury to a person or damage to major equipment or property,
 - (vi) a premature or unexpected explosion or ignition of explosives,
 - (vii) a dangerous or careless act involving explosives that is required to be reported under subsection 6.4(2),
 - (viii) an unexpected explosion resulting from contact between molten material and water or a deleterious substance as defined in section 10.1,
 - (ix) an atmospheric condition that results in asphyxiation involving partial or total loss of bodily control,
 - (x) an unusual gaseous condition in the workplace,
 - (xi) an unexpected or non-controlled subsidence or caving of the mine workings or a rockburst, being a natural and violent rupture of a volume of rock such that the release of energy can be detected as a distinct and abnormal seismic event,
 - (xii) an incident involving a crane,
 - (xiii) an incident involving powered mobile equipment that results or could have resulted in an injury to persons or serious property damage,
 - (xiv) an uncontrolled spill or escape of a hazardous substance or any other incident that requires reporting under *The Dangerous Goods Handling and Transportation Act*,

- (xv) the collapse or structural failure of a building, structure, hoist, lift, temporary support system or excavation,
- (xvi) failure of an air supplying respirator that places a worker at risk,
- (xvii) loss of control of a remote controlled piece of equipment or robot, or
- (xviii) a near miss.

2.11(2) When notifying a mines inspector and the committee of an incident or dangerous occurrence under subsection (1), the employer must provide the following information:

- (a) the name and address of each person involved in the incident or occurrence;
- (b) the name and address of the employer, and if any person involved in the incident is employed by another employer, the name and address of that other employer;
- (c) the name and address of each person who witnessed the incident or occurrence;
- (d) the date, time and location of the incident or occurrence;
- (e) the apparent cause of the incident or occurrence and the circumstances that gave rise to it.

2.11(3) An employer who becomes aware that information provided under subsection (2) is inaccurate or incomplete must immediately notify the mines inspector and the committee of the correct or complete information.

Investigations: incidents and dangerous occurrences

- 2.12** An employer must, after reporting an incident or dangerous occurrence under section 2.11,
- (a) facilitate the investigation and the report respecting the occurrence that are required under section 2.9 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006; and
 - (b) ensure that the report is submitted to a mines inspector without undue delay and in no case more than seven working days after the incident or occurrence.

Maintenance of scene

- 2.13(1)** Except to the extent necessary to free a trapped person or to avoid the creation of an additional hazard, and subject to a directive issued under clause 24(1)(l) of the Act, no person shall, until authorized by a mines inspector, alter or move any thing involved in or related to an incident or dangerous occurrence that is to be reported under section 2.11.
- 2.13(2)** Before giving an authorization under subsection (1) for the purposes of permitting the work at the mine to proceed, the mines inspector must ensure that
- (a) photographs or drawings showing the details of the scene of the incident are made before anything is moved; or
 - (b) an adequate investigation has been made by the employer and the committee.

Near misses

- 2.14(1)** The employer must, in consultation with the committee, establish a written policy respecting the process to investigate and report a near miss.
- 2.14(2)** The employer must provide a copy of the policy respecting the reporting of a near miss to a mines inspector.

Application

- 2.15** Sections 2.6 to 2.8 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, do not apply to a mine.

PART 3
OPENING, ALTERING OR ABANDONING MINES,
TAILINGS PONDS AND RETENTION PONDS

MINES

Notice of opening or suspension of mine

- 3.1(1)** The employer, contractor or owner at a mine must give notice to a mines inspector and the committee of
- (a) the opening of a mine for exploration, development or production, or the reopening of a mine if operations were discontinued, at least 14 calendar days before the opening or reopening;
 - (b) the resumption of work at a mine, if the resumption occurs after a suspension of more than 30 days of all mining, maintenance and construction, before resumption of work;
 - (c) for a quarry, the opening of or resumption of work in each year, before the quarry is opened or work is resumed; or
 - (d) the discontinuance, or suspension for more than 30 days, of all mining, maintenance and construction work, before or at the time of the discontinuance or suspension.
- 3.1(2)** For the purposes of subsection (1), connecting or reconnecting electrical mining equipment to a source of electrical power controlled by a person other than the owner of a mine constitutes opening or resuming work.
- 3.1(3)** In a notice of the opening, reopening or resumption of work at a mine, the employer must specify the number of workers the employer expects to employ at the workplace.

Requirements re mining near property boundary

- 3.2** Before conducting any surface or underground mining operation within 15 m of a neighbouring property, the employer must
- (a) provide a mines inspector with a copy of a written agreement with the owner of the adjoining property and the owner of the adjoining mineral rights in respect of mining conducted within that distance; and
 - (b) advise the committee, and the committee in respect of the adjoining property, if any, of the mining plan and any risk or hazardous condition that may impact either property.

Employer to give notice of changes in activities

- 3.3(1)** The employer must give notice to a mines inspector before
- (a) developing or constructing a mine;
 - (b) making major additions or alterations to a mine;
 - (c) introducing new processing technology at the mine;
 - (d) using new methods of construction or new methods of equipment installation at the mine;
 - (e) proceeding with a major alteration of mining technique or mining technology; or
 - (f) proceeding with any undertaking for which plans or information are required to be provided under this regulation.
- 3.3(2)** A notice under subsection (1) must
- (a) state any potential impact on the safety and health of workers or other person resulting from the proposed activity, including
 - (i) the presence of a hazardous substance or physical agent in the workplace, and
 - (ii) the expected concentration of the hazardous substance in the atmosphere or the level of exposure of workers to the physical agent;
 - (b) identify any special precaution that will be implemented to protect workers against hazards to their health or safety that could result from the proposed activity; and
 - (c) identify any change in the number of workers employed in the workplace.
- 3.3(3)** If requested by a mines inspector, the employer must provide a report by a professional engineer on any matter which the mines inspector has reason to believe could involve a potential danger to a person or to a thing at the mine.
- 3.3(4)** The employer must give a copy of the notice and any other information or material provided to the mines inspector under this section to the committee at the same time that it is provided to the mines inspector.

Abandonment of a mine

- 3.4** Before abandoning a mine the owner must
- (a) ensure that all buildings, structures and equipment are removed, except footings, foundations and structures constructed of concrete which do not cause a condition unsafe for the public; or

- (b) give written evidence to a mines inspector that a surface lease has been obtained in respect of the land under which the owner is permitted to continue to occupy the surface for a purpose other than mining.

Protection of mine workings

3.5(1) If work at a mine is discontinued but not abandoned, the employer must

- (a) in accordance with subsection (2), close off at surface and keep closed off and protected
 - (i) all workings that are dangerous by reason of their depth, and
 - (ii) all places where openings are liable to occur because of subsidence or other cause;
- (b) remove all hazardous substances; and
- (c) in respect of the buildings, structures, works and equipment at the mine, ensure that they are
 - (i) removed in accordance with clause 3.4(a), or
 - (ii) maintained in accordance with section 3.6.

3.5(2) A shaft, raise and portal is closed off if it is

- (a) completely filled;
- (b) solidly bulkheaded at the surface with reinforced concrete, with the bulkhead that
 - (i) is set on bedrock or on a reinforced concrete collar,
 - (ii) is designed to support a uniformly distributed load of 12 kPa or a concentrated load of 54 kN, whichever is the greater, but in no case less than 300 mm in thickness,
 - (iii) has a substantial permanent steel or concrete marker not less than 1 m high, and
 - (iv) has a vent installed in it that is at least 8 cm in diameter and that enables the pressure on both sides of the bulkhead to be equalized; or
- (c) sealed and secured by an alternate method that is designed and approved by a professional engineer.

3.5(3) The employer must ensure that any surface opening and any open pits, other than shafts, raises and portals, are filled or sloped to a safe angle, as designed and approved by a professional engineer, if the opening or pit

- (a) is not readily visible; or

- (b) causes a hazard greater than the hazard caused by the natural topographical features of the area.

3.5(4) If it is impractical to bulkhead, fill or slope the mine workings so as to eliminate a hazard, the employer must

- (a) provide and maintain a fence or other protection against inadvertent access to the mine workings or other danger to the public; and
- (b) provide detailed plans of the protection under clause (a) to a mines inspector.

3.5(5) An employer who is required to close off workings and other openings under clause (1)(a) must, at least 30 days before the actions are taken,

- (a) provide detailed plans of the actions to be taken to a mines inspector, including
 - (i) the means of closure and protection of all mine workings, and
 - (ii) the methods of protection of areas of potential future subsidence; and
- (b) provide a copy of the plans to the committee.

Buildings, etc. left at discontinued mine

3.6 The employer must do the following in respect of buildings, structures, works and equipment that are left at a mine where mining is discontinued:

- (a) ensure that the buildings, structures, works and equipment are maintained in a safe condition and locked to prevent entry or use by a person not authorized by the employer;
- (b) remove all ladders within 3 m of the ground or an access platform;
- (c) implement measures to prevent powered machinery or electrical devices from being activated by a person not authorized by the employer.

Deferral

3.7(1) An employer who plans further exploration, development or production at the mine may defer compliance with section 3.6 for up to 12 months if the employer

- (a) provides a mines inspector with notice of
 - (i) the employer's intention to defer the closing,
 - (ii) the employer's detailed plans for future exploration, development or production,

- (iii) the protections to be provided for the mine workings, and
 - (iv) the preventative measures to be provided to ensure that persons who are not authorized by the employer are not able to enter the mine workings; and
- (b) implements the protections and preventative measures described in the notice.

3.7(2) The employer must give a copy of the information required to be included in the notice under subclauses (1)(a)(i), (iii) and (iv) to the committee.

Requirements re slope

3.8 The employer must ensure that any slope on the surface that is left following the temporary suspension of mining in sand, gravel, clay, shale or other unconsolidated material is not steeper than the lesser of

- (a) the angle of repose of the material that was mined; or
- (b) an angle of 45° to the horizontal;

but in no case may the slope be left in a condition that would pose a risk to a worker or other person.

Definition: “suspension”

3.9 In this Part, “**suspension**” means, when used in respect of a mine or a part of a mine, that no mining activity is being undertaken but that the mine or the part of the mine is being maintained in order that mining activity may be resumed.

TAILINGS OR RETENTION POND

Requirements for tailings dam

3.10(1) At least 60 days before beginning the construction of a new dam, a major modification of an existing dam or a system of dams on the surface that are or will be used for impoundment or storage of tailings or water, the employer must provide a mines inspector, with a copy to the committee,

- (a) a plan showing the location and the construction details for
 - (i) each of the major components of the effluent control system including, without limitation, any dam, weir, culvert, valve, gate, berm, bulkhead, pond or road,
 - (ii) each of the components of any other water management control structure,

- (iii) the topographical elevations of the components, and
 - (iv) the topographical elevations and locations of all openings to the mine workings in relation to the impoundment or storage areas;
- (b) information respecting the depth and quantity of solid and liquid matter that is planned to be retained by the dam over the life of the mine;
- (c) a report by a professional engineer showing
 - (i) the site investigations that have been made,
 - (ii) the calculations of the dam's stability that have been done,
 - (iii) the quantity and quality of seepage expected through the dam, and
 - (iv) the layout of the impoundment and any additional water management structures required at closure; and
- (d) a report by a professional engineer on the risk assessment as it relates to the new or modified dam or dams.

3.10(2) At least 14 days before beginning major repairs on a dam on the surface used for the impoundment of tailings or water, an employer must provide to a mines inspector

- (a) a plan showing the location of the dam; and
- (b) a report by a professional engineer indicating details of the repairs.

Quality control and quality assurance

3.11 During construction of a tailings or water containment dam or structure, an employer must have available at the site documentation that has been approved by a professional engineer of the quality control and quality assurance program related to the material placement and construction of the dam or structure.

PART 4
GENERAL WORKPLACE REQUIREMENTS

Protection from overhead operations

- 4.1(1)** The employer must not permit a worker to work, and a worker must not work, at a location on the surface or underground at a mine where other work is being carried out above the worker, unless the worker is protected by such measures as may be necessary given the activities in the workplace above.
- 4.1(2)** If a worker is working in a workplace, the top opening of which is open to another workplace that is in close proximity to a haulageway or travelway, the employer must ensure that the top opening is
- (a) effectively guarded by a worker; or
 - (b) securely covered or otherwise closed off from the haulageway or travelway.

Chute bars

- 4.2** The employer must ensure that bars used for clearing hung up chutes and other tasks, excluding scaling, are blunt on one end and have a flexible rubber sleeve on the blunt end.

Mucking

- 4.3** When mucking at a mine, an employer must not permit a worker and a worker must not
- (a) undercut the mucking face; or
 - (b) keep the vertical height of the mucking face at a height greater than can be reached by the equipment being used, unless the equipment is operated by remote control.

Information re personal protective equipment

- 4.4** An employer must inform the committee and the workers of the measures taken under section 2.1 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, to eliminate or reduce risk at the workplace if, under subsection (3) of that provision, the employer is required to ensure that a worker uses personal protective equipment.

Personal protective headwear and footwear

- 4.5(1)** A worker at a mine must wear protective headwear while working. The headwear must
- (a) meet the requirements of CSA Standard Z94.1-05, *Industrial Protective Headwear – Performance, Selection, Care and Use* or ANSI Z89.1-2003, *American National Standard for Industrial Head Protection*; and
 - (b) if the worker works underground, have reflective markings visible from the front, the back and both sides.
- 4.5(2)** A worker at a mine must wear protective footwear that
- (a) meets the requirements of section 6.12 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006; and
 - (b) is equipped with metatarsal guards, if the worker works underground.
- 4.5(3)** Despite subsections (1) and (2), a worker is not required to wear protective headwear or protective footwear in an area that, as specified in a notice to a mines inspector, has been designated by the employer in consultation with the committee.

Clothing

- 4.6(1)** An employer must require a worker working underground to wear clothing that meets the requirements of CAN/CSA-Z96-02, *High Visibility Safety Apparel*.
- 4.6(2)** A worker exposed to danger of entanglement with machinery must not wear or be allowed by the employer to wear loose clothing, adornments or unconfined hair.

Fall protection

- 4.7(1)** When the use of a guardrail system as required under section 18.4 is not reasonably practicable or would not be effective, the employer must ensure that the worker uses a full body harness and is protected by either of the following:
- (a) a travel restraint system that prevents the worker from reaching a free-fall situation, if the worker is exposed to a hazard of reaching a free-fall situation;
 - (b) a fall arrest system, if the worker is exposed to falling
 - (i) a vertical distance of 1.5 m or more,
 - (ii) a vertical distance of less than 1.5 m, if there is an increased risk of injury due to the surface or item on which the worker might land,

- (iii) into water, another liquid or a hazardous substance, or
- (iv) onto a hazardous object.

4.7(2) In an underground mine, a safety belt may be used instead of a full body harness as part of a travel restraint system.

4.7(3) When a fall arrest system is required to be used by a worker the employer must

- (a) develop safe work procedures for rescuing a worker after a fall has occurred;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Damaging or altering safety equipment prohibited

4.8(1) A person must not

- (a) remove, displace, damage, destroy, disable or carry off a safety device, safeguard, notice or warning device used or placed in or about a mine or interfere in any way with its use by another person;
- (b) interfere with the use of a method or process adopted for the protection of a worker at a mine;
- (c) tamper with or damage a fire protection device; or
- (d) damage or remove protection provided at an abandoned or discontinued mine.

4.8(2) Clause (1)(a) does not apply to a worker who, acting on the instruction of the employer, repairs, replaces or changes a safety device, safeguard, notice or warning device, provided that the safety of the worker or any other workers is not compromised.

Alcohol and drugs prohibited

4.9(1) The employer must take all reasonable steps to ensure that a worker does not

- (a) work at a mine while under the influence of alcohol; or
- (b) bring an alcoholic beverage to a mine or consume or keep an alcoholic beverage at a mine, except if the worker resides at a mine and consumes or keeps the beverage in an area specified in writing by the employer.

- 4.9(2)** An employer must take all reasonable steps to ensure that a worker does not
- (a) work at a mine while under the influence of a drug that impairs or could impair the worker's ability to work safely; or
 - (b) bring drugs to a mine or consume or keep drugs at a mine.
- 4.9(3)** Clause (2)(b) does not apply to a worker at a mine who is required to use a prescription drug, but the worker must, on request of the employer, give the employer evidence of the worker's need to take the drug and a medical opinion concerning any possible impairment of the worker's ability to work safely.
- 4.9(4)** A worker at a mine must not
- (a) work at a mine while under the influence of alcohol or a drug that impairs or could impair the worker's ability to work safely; or
 - (b) except as permitted by this section, bring alcoholic beverages or drugs to a mine or consume alcoholic beverages or drugs at a mine.

Sanitary facilities

- 4.10(1)** The employer must provide and maintain sanitary facilities
- (a) on the surface at a mine in accordance with sections 4.7 to 4.11 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006; and
 - (b) in the underground portion of a mine in accordance with the following requirements:
 - (i) a sanitary toilet must be located in a dry area under protected roof, within 1,000 lateral metres of any place in the mine where miners are regularly working,
 - (ii) each sanitary toilet must have an attached toilet seat with a hinged lid and have with it an adequate supply of toilet tissue,
 - (iii) each sanitary toilet must be a flush or non-flush chemical or biological toilet, sealed bag toilet, or vault toilet,
 - (iv) subject to subsection 4.11(2), a washing facility must be located within close proximity of each sanitary toilet.
- 4.10(2)** The employer must not permit the deposit of, and a worker must not deposit,
- (a) feces, except in a sanitary facility; or
 - (b) garbage, waste and objectionable material, except in receptacles provided for the purpose.

4.10(3) An employer must ensure that

- (a) a system for the sanitary disposal of the materials referred to in subsection (2) is
 - (i) developed in consultation with the committee, and
 - (ii) provided and maintained; and
- (b) the disposal is done at suitable intervals.

Washing and showering facilities

4.11(1) If workers are employed at an underground or open pit mine or in hot, dirty or dusty work, the employer must provide and maintain facilities for washing, dressing and showering that

- (a) include suitable, adequate and clean changing facilities that have a sufficient supply of hot and cold water;
- (b) permit a worker to keep clean clothes separated from soiled clothes;
- (c) are not be located in the same room as a hoist, engine, boiler or compressor; and
- (d) for the underground portion of a mine, are located on the surface close to the entrance to the underground workings, unless reasonable protection from the environment is provided between the entrance to the underground workings and the facilities.

4.11(2) The employer must provide and maintain alternative adequate washing facilities, such as waterless hand cleaners, hand sanitizers, clean water, soap and towels or other suitable facilities, where

- (a) it is not reasonably practicable to provide a washing facility in close proximity of a sanitary toilet; and
- (b) alternative washing facilities are necessary to protect the safety and health of a person.

4.11(3) The employer must ensure that no worker leaves the workplace wearing clothing contaminated by a hazardous substance.

Lunchrooms

4.12(1) An employer at a mine must provide, within reasonable access of all workers at the mine, a lunchroom that is

- (a) maintained in a clean and sanitary condition, including being cleaned at least once each day;
- (b) constructed and maintained in a manner that prevents the entrance of vermin;

- (c) separated from any place where a hazardous substance could contaminate food, dishes or utensils;
- (d) not used for any purpose that is incompatible with its use as a lunchroom; and
- (e) in close proximity to hand washing facilities that
 - (i) have a supply of hot and cold water or other suitable means of cleaning and drying hands, and
 - (ii) are kept clean, sanitary and operational.

4.12(2) A worker must use a lunchroom in a clean and sanitary manner.

4.12(3) If vermin have entered a lunchroom the employer must immediately take all steps necessary to eliminate the vermin and prevent other vermin from entering the lunchroom.

First aid

4.13 The employer must provide and maintain at the mine

- (a) a supply of blankets, splints and stretchers, including stretchers that are suitable for underground use if appropriate, that are kept in a warm, dry condition and that are readily accessible to the workers; and
- (b) a first aid kit on each personnel carrier and each piece of mobile equipment that is used by a supervisor.

Exception re first aid kits

4.14 The employer must, in place of section 5.13 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, ensure that a worker who works alone and who does not have ready access to a first aid kit is provided a first aid kit based on need determined by a risk assessment carried out by the employer.

First aiders

4.15(1) In place of the requirements under section 5.5 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, the employer must ensure that

- (a) at least two workers at the workplace have first aid training, with one of them having the qualifications of a first aider 2 or 3;
- (b) in an underground mine, each supervisor has the qualifications of a first aider 2 or 3; and

- (c) if
 - (i) a single worker is working underground, the worker has the qualifications of a first aider 1, or
 - (ii) two or more workers are working underground, at least two of them have the qualifications of a first aider 1.

4.15(2) In this section a person has the qualifications of a first aider 1, 2 or 3 if he or she has the qualifications prescribed in sections 2, 3 or 4 of Schedule A of Part 5 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006.

Workplace environment

4.16(1) Subject to subsection (2), the employer must not require or permit a worker to work in a workplace if

- (a) the oxygen content in the atmosphere of the workplace is less than 19.5 % by volume; or
- (b) the concentration of any contaminant in the atmosphere exceeds the threshold limit values for the contaminant.

4.16(2) An employer may permit a worker to enter or remain in a workplace that has an atmosphere that does not meet the requirements of subsection (1) if

- (a) the worker's presence is required to make repairs required as a result of an incident or unusual occurrence and the repairs are being diligently pursued;
- (b) the worker's presence is required to provide continuity of operation while repairs are being made; or
- (c) the condition has been reviewed by the committee and implementation of engineering or administrative controls are not, in the opinion of the committee, reasonably practicable.

4.16(3) If a worker is permitted to work in a workplace under subsection (2) the employer must

- (a) advise the worker of the conditions in the workplace and of precautions the worker must take;
- (b) ensure that the worker entering or remaining in the workplace wears suitable personal protective equipment;
- (c) post and maintain signs warning of the hazardous conditions at the entrances to the workplace;

- (d) promptly inform the committee and a mines inspector in writing of the circumstances and the protective measures implemented; and
- (e) ensure that the worker does not work in isolation.

4.16(4) Clauses (3)(c) and (d) do not apply in the case of

- (a) rescue training under the direct supervision of a competent instructor; or
- (b) a rescue operation where rescue crews are equipped with and trained in the use of suitable self-contained breathing apparatus.

Hazardous substances or agents

4.17(1) This section and section 4.18 are in addition to Part 36, Chemical and Biological Substances, of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006.

4.17(2) If a hazardous substance or physical agent is used, produced or found at a specific location at a mine, the employer must

- (a) orally inform each worker at the location regarding the identity of the substance or agent and the nature and degree of hazard;
- (b) orally instruct each worker with respect to
 - (i) the precautions to be exercised by the worker in the use, handling and storage of the substance or agent,
 - (ii) the requirements for protection of the worker's safety and health,
 - (iii) the procedure to be taken in the event of an incident, and
 - (iv) the first aid facilities provided and procedures to be used for rendering first aid;
- (c) on request, provide to each worker the information prescribed in clauses (a) and (b) in written form;
- (d) provide and maintain in a conspicuous place, convenient to the workers,
 - (i) any equipment or device required to implement the instructions referred to in clause (b),
 - (ii) a supply of antidotes and washes with labels clearly showing explicit directions for their use in treating an injury caused by the hazardous substance or physical agent,

- (iii) in the case where a potentially dangerous atmosphere may occur,
 - (A) appropriate rescue apparatus which maintains a positive pressure within the face piece, and
 - (B) portable resuscitating apparatus for treatment of an exposed worker; and
- (e) for each operating shift, designate for duty a person trained in the use of the equipment, devices and supplies referred to in clause (d).

4.17(3) If acids, corrosives or poisonous compounds are used at a specific location at a mine an employer must ensure that

- (a) precautions are taken to reduce to a minimum the hazards of handling and storing the materials and of disposing of the containers used to store them;
- (b) clearly visible warning signs are posted in a conspicuous place;
- (c) all containers or packages used to store the material are clearly labelled as to the contents and the nature of the hazard; and
- (d) only workers who are authorized by the employer to do so handle the materials or enter areas where they are stored.

4.17(4) Without limiting the other measures that an employer must take in respect of cyanide in a workplace, if cyanide is present, the employer must not permit cyanide to be stored in a place or be transported in a manner that might permit it to come in contact with an acid, an acid-forming substance or an acid vapour.

Register of hazardous substances

4.18(1) The employer must

- (a) prepare and maintain a register containing
 - (i) a list of all hazardous substances or physical agents used, produced or found at the mine, and
 - (ii) the nature and degree of hazard caused by each substance or agent listed;
- (b) on request, make the register under clause (a) available to the committee and a mines inspector; and
- (c) at least annually, provide a copy of an updated register to the committee and a mines inspector.

4.18(2) If a hazardous substance or physical agent that is not included in the register is introduced to a specific location at a mine, the employer must inform

- (a) the workers in accordance with subsection 4.17(2);
- (b) the committee; and
- (c) a mines inspector.

Workplace monitoring

4.19 An employer who conducts monitoring in accordance with Part 36 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, must

- (a) review the monitoring records with the committee as the records become available; and
- (b) report the following to the committee and a mines inspector:
 - (i) the average level of exposure of each class of worker or in each workplace,
 - (ii) the number of samples or tests,
 - (iii) the number of samples and range of results that exceed the threshold limit value,
 - (iv) the number of workers in each class or workplace.

Health surveillance program

4.20(1) The employer must implement and maintain a program of surveillance of the health of all workers. The program must be developed and periodically reviewed in consultation with the committee.

4.20(2) The health surveillance program must include

- (a) a pre-placement medical examination of each worker by a physician; and
- (b) re-examination of the worker and tests at intervals that are determined
 - (i) by a physician, on reviewing the records established under Part 36 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006,
 - (ii) by the chief occupational medical officer, if a worker, during the course of employment, has been exposed to a hazardous substance or physical agent and re-examination of the worker would be to the advantage of the worker or the group of workers in a workplace;

or in any other case, in accordance with the enactments of Manitoba and Canada.

- 4.20(3)** Subject to the provisions of *The Personal Health Information Act*, a physician who performs a pre-placement medical examination of a worker must inform the employer and worker of any type of work that the worker should not be assigned because of the likelihood of the work being injurious to the worker's safety or health.

Reporting

- 4.21(1)** An employer must ensure that any illness or injury suffered by a worker in the course of the worker's work is promptly recorded and that the records are retained for the duration of the worker's employment.
- 4.21(2)** Section 5.7 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, does not apply to a mine.

Report re worker affected by hazardous substance

- 4.22(1)** The employer must make a report to the committee and a mines inspector if
- (a) the health of a worker is or has been adversely affected by exposure to a hazardous substance or physical agent; and
 - (b) because of the adverse affect,
 - (i) the worker is transferred, suspended or terminated, or
 - (ii) the employer receives a recommendation from a physician that the worker be transferred to a less hazardous workplace.
- 4.22(2)** Within seven days of receiving a report under subsection (1) the committee must investigate the circumstances that led to the worker's exposure and provide a report to a mines inspector.

Dusty operations

- 4.23** The employer must provide water or some other suitable means for controlling dust if operations at the mine are likely to produce dust concentrations in excess of the limit referred to in subsection 4.16(1)(b).

Lighting, including cap lights

- 4.24(1)** In addition to the requirements of section 4.14 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, the employer must ensure that, underground,
- (a) suitable and adequate illumination is provided at all maintenance shops and all places where machinery is permanently installed;

- (b) continuous lighting is provided at
 - (i) places where workers congregate,
 - (ii) main stations and active shaft landings,
 - (iii) any place where a machine may dump material over an edge that is subject to subsection 13.10(2), and
 - (iv) any other area agreed upon by the employer and the committee; and
- (c) adequate auxiliary lighting is provided if a worker must assess ground conditions at a distance greater than the effective range of the worker's cap lamp.

4.24(2) The employer must ensure that each worker who works underground is equipped with a suitable and adequate cap lamp that is capable of providing adequate illumination for the duration of that worker's shift.

Thermal environment

4.25(1) Section 4.12 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, does not apply to a mine.

4.25(2) If it is not reasonably practicable to control thermal conditions that may create a risk to a worker's safety or health, the employer must, in consultation with the committee, develop safe work procedures to

- (a) ensure that the threshold limit values for thermal stress established by the American Conference of Governmental Industrial Hygienists in its publication *Threshold Limit Value for Chemical Substances and Physical Agents and Biological Indices* are followed;
- (b) provide workers training about the possible adverse effects of the work environment;
- (c) instruct workers how to recognize symptoms of thermal stress and what treatment should be applied in response to that stress; and
- (d) monitor thermal conditions to identify when workers could be adversely affected by heat or cold stress and when protective measures are required to adequately protect workers.

4.25(3) The employer must implement the safe work procedures developed in subsection (2) and ensure that workers comply with the safe work procedures.

Cranes and derricks

4.26(1) Part 23 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, does not apply to the mine hoist, shaft, conveyances, and associated structures.

4.26(2) Subsection 23.8(1) of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, does not apply to a hoist or a crane at a mine that is manually operated in the vertical direction by the use of a chain.

Requirements re mobile equipment

4.27(1) The employer must ensure that each piece of mobile equipment that has power assisted wheel steering, as distinct from articulated steering, is equipped with an adequate means of steering the mobile equipment until it is stopped if the power assisted steering fails.

4.27(2) The employer must ensure that each piece of mobile equipment is equipped with

- (a) a service brake that will stop and hold the mobile equipment when fully loaded and on all operating grades;
- (b) a parking brake that has a solely mechanical means of making and retaining engagement that will hold the mobile equipment when fully loaded on all operating grades;
- (c) a means that enables the operator to independently test each braking system;
- (d) if the mobile equipment is equipped with a pressure applied braking system, a warning device that alerts the operator in the event of a loss of braking pressure;
- (e) an audible warning device;
- (f) a separate audible warning device that sounds when the mobile equipment is operated in reverse, unless
 - (i) other suitable means of warning or protection are employed, or
 - (ii) the mobile equipment is designed to be operated bi-directionally and the operator has a clear view in both directions;
- (g) lights that
 - (i) provide illumination in the direction of travel,
 - (ii) if possible, show the width of the mobile equipment in the direction of travel, and

- (iii) on the rear of the mobile equipment, are red, except for equipment that is designed to travel in both directions;
- (h) a restraining device that prevents failure of the drive shafts or couplings from causing damage to the mobile equipment's control systems;
- (i) where conditions require their use, wheel chocks as required under section 15.6;
- (j) a switch to isolate electrical power from the battery;
- (k) when operated by remote control or by an automatic system, a means whereby, in the event of failure of a part of the control or system, the brakes will be applied immediately; and
- (l) when cabs are provided, doors that have a latching system to prevent inadvertent opening while the mobile equipment is in motion.

PART 5
EMERGENCY PREPAREDNESS AND FIRE PROTECTION

DIVISION 1 – UNDERGROUND

Emergency procedures underground

5.1(1) The employer must

- (a) in consultation with the committee, establish written procedures to be followed in the event of a fire or other emergency underground that effectively provide for the safety of all workers and the control of the fire or other emergency;
- (b) post copies of the emergency procedures, or extracts from the procedures, in conspicuous places underground and at the surface entrance to the underground portion of the mine;
- (c) maintain at the mine, ready for instant use, an emergency warning system or systems, that is capable of promptly and effectively warning all workers underground of an emergency requiring speedy evacuation of the workplace; and
- (d) at least annually, instruct each worker on
 - (i) the emergency procedures that relate to the worker's safety,
 - (ii) the recognition of any emergency warning system or systems in use at the mine,
 - (iii) the escape routes and exits, and
 - (iv) the location of each refuge station.

5.1(2) The employer must conduct tests of the emergency procedures and emergency warning systems as follows and, within seven days of a test, provide a report on the effectiveness of the procedures and systems to a mines inspector and the committee:

- (a) generally, at least once in each year; and
- (b) over the course of a four-year cycle, at least once during each operating shift, including an operating shift that is not a dayshift.

5.1(3) If a test conducted as required by subsection (2) shows a deficiency of the emergency procedures or emergency warning system, the employer must

- (a) immediately make any change necessary to correct the deficiency and test the effectiveness of the revised procedure or system;

- (b) provide a report within seven days of the test of the revised procedure or system to a mines inspector and the committee; and
- (c) inform all workers that may be affected of the changes made in the procedure or system.

5.1(4) In the case of a proposed mine, the employer must, before beginning development of the mine, provide to a mines inspector the proposed written emergency procedures to be followed in the event of a fire or other emergency, and a proposed emergency warning system.

Emergency exits from underground

5.2(1) Except during the initial exploration and development stages of a mine or part of a mine, the employer at an underground mine must ensure that at least two independent means of exit from the underground workings to the surface are provided and maintained at all times.

5.2(2) The independent means of exit must be

- (a) located at least 30 m from one another;
- (b) isolated underground from one another by fire doors that meet the requirements of subsection 5.6(2);
- (c) of sufficient size to afford passage for mine rescue crews wearing self-contained breathing apparatus;
- (d) if required under Part 18, be equipped with ladders from the deepest workings to the surface; and
- (e) marked on all levels by conspicuous signs with arrows pointing toward and marking the exits in a manner that will expedite evacuation of the mine.

Refuge stations

5.3(1) The employer must ensure that one or more refuge stations are provided and maintained.

5.3(2) In addition to the refuge stations required under subsection (1), the employer must provide and maintain any refuge stations that are required in writing by a mines inspector.

5.3(3) A refuge station must be

- (a) suitably located with respect to working areas, but in no circumstances at intervals that exceed 100 m vertically or 1,000 m horizontally from a working area;
- (b) clearly identified;

- (c) constructed of noncombustible material;
- (d) of sufficient size to accommodate the number of workers that are reasonably expected to assemble in the station; and
- (e) equipped with
 - (i) for the number of workers who may reasonably be expected to assemble in the refuge station,
 - (A) at least a 24 hours supply of potable water and respirable air, and
 - (B) sufficient seating for each worker,
 - (ii) an effective means of communication with surface,
 - (iii) a means of sealing the station to prevent the entry of gas,
 - (iv) lights, first aid supplies and sanitation facilities,
 - (v) a double door that can effectively create an air lock and a means of evacuating foul air from the air lock,
 - (vi) if equipped with an external supply of compressed air, a suitable noise reduction mechanism and a means of removing the odour of the chemical inserted into the compressed air system.

5.3(4) Unless required in writing by the director, clause (3)(a) and subclause (3)(e) (v) do not apply to a refuge station constructed before the coming into force of this regulation.

Mine rescue station

5.4(1) The employer at an underground mine must establish, equip, maintain and operate a mine rescue station.

5.4(2) The employer must ensure that the mine rescue station, equipment and training requirements comply with the requirements established by the director.

5.4(3) The employer must require workers designated by the employer to attend training courses in mine rescue work.

Building or hoist near mine entrance

5.5(1) The employer must not erect or permit the erection of any building that is less than 15 m away from any closed-in portion of the headframe, shaft house or portal house of the mine.

5.5(2) Subsection (1) does not apply

- (a) once a second means of exit has been provided from the underground workings;

- (b) if the headframe, shaft house or portal house and a building within 15 m of them, and any adjoining building, is
 - (i) constructed of noncombustible materials, and
 - (ii) not used for the storage of flammable or combustible materials; and
- (c) if a fire wall of two hour fire resistance rating separates the headframe, shaft house or portal house from any building within the 15 m restricted zone or any building adjoining a building within the 15 m restricted zone.

5.5(3) The employer must ensure that the supporting and enclosing structure of any hoist located above a mine shaft is constructed of noncombustible material.

5.5(4) In an underground or tower mounted hoist room, the employer must ensure that, in the event of an emergency, uncontaminated air is provided and kept available to the hoist operator by means of

- (a) an enclosed booth with a positive supply of uncontaminated air; or
- (b) two or more units of self-contained air or oxygen breathing apparatus, together with
 - (i) at least two spare fully charged cylinders,
 - (ii) a fully charged cylinder of compressed air or oxygen of at least 8.5 m³ capacity at standard temperature and pressure, and
 - (iii) a manifold capable of receiving at least two inline hookups from the self-contained breathing apparatus.

5.5(5) In clause (2)(c), “**fire resistance rating**” means the time in hours or minutes that a material or assembly of materials can withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined under *The Fires Prevention and Emergency Response Act*.

Fire doors

5.6(1) An employer must ensure that fire doors are installed and maintained that

- (a) isolate the shaft or the main entrance to the mine and the mine workings directly associated with the shaft or main entrance from other workings of the mine;

- (b) close off the following facilities from other underground workings:
 - (i) each service garage,
 - (ii) subject to clause 5.15(b), each oil storage place where more than 1,000 litres of oil, grease or flammable liquid are stored.

5.6(2) A fire door must be

- (a) constructed of noncombustible material;
- (b) equipped with
 - (i) a securing device that can be opened from either side and that prevents the door from being opened by a reversal of the air current, and
 - (ii) a person access door;
- (c) operable prior to the facilities being used;
- (d) maintained in a manner that will preclude more than a minimum leakage of air when the doors are closed; and
- (e) kept clear of obstructions.

Boilers, engines and compressors near entrance to the underground workings

5.7(1) The employer must not require or permit

- (a) a steam boiler, diesel engine or compressor to be installed within 23 m of the collar or other opening to the mine; or
- (b) the installation, servicing, garaging or storage of an engine using gasoline or other flammable liquid or gases within
 - (i) 15 m of the building housing the hoist, or
 - (ii) 30 m of a shaft or other opening to the underground workings.

5.7(2) The employer must ensure that a reciprocating type air compressor driven by a prime mover exceeding 30 kW that is lubricated by oil and discharges to a closed system over 100 kPa is equipped with a temperature-indicating device that

- (a) is installed at the high-pressure discharge pipe; and
- (b) has the normal operating temperature marked on it.

5.7(3) The employer must ensure that the discharge air temperature of an air compressor referred to in subsection (2) is read at least once every operating shift and the reading is recorded in a compressor log book.

- 5.7(4)** Subsection (3) does not apply where an automated continuous monitoring system designed to be fail safe has been installed on the air compressor.

Compressors underground

- 5.8(1)** If an air compressor driven by a prime mover exceeding 25 kW is installed in an underground mine, the employer must ensure that the compressor is
- (a) designed and installed to minimize the hazard of fire or explosion due to the accumulation of carbonaceous materials in the air system;
 - (b) equipped with a temperature-indicating device that
 - (i) is installed at the high-pressure discharge pipe, and
 - (ii) has the normal operating temperature marked on it;
 - (c) provided with protective devices that prevent its operation if
 - (i) the temperature of the air at the discharge line is in excess of normal,
 - (ii) the temperature of the compressor cooling water and cooling air is in excess of normal, or
 - (iii) the flow and pressure of compressor lubricating oil is below normal; and
 - (d) provided with an alarm that
 - (i) is audible and visible to the worker in charge of the compressor, and
 - (ii) operates when a protective device referred to in clause (c) is activated, and continues to operate as long as the conditions exist that cause a protective device to operate.
- 5.8(2)** A protective device referred to in clause (1)(c) must not be capable of automatically restarting the compressor.

Noncombustible materials for construction underground

- 5.9** An employer must ensure that only noncombustible materials are used for the construction of the following:
- (a) any permanent structure underground;
 - (b) any structures and enclosures underground used for
 - (i) shops and lunchrooms,
 - (ii) housing and supporting machinery powered by an electrical or internal combustion engine,

- (iii) storage of any material that will readily burn;
- (c) any structure or enclosure used in relation to a heating device.

Fire protection equipment

5.10(1) An employer must ensure that suitable fire extinguishing equipment is provided and maintained at a suitable location in any

- (a) headframe, shaft house and portal house;
- (b) shaft and winze station;
- (c) underground electrical installation;
- (d) piece of mobile equipment;
- (e) underground place where electrical or internal combustion powered machinery is installed or used;
- (f) underground shop, garage or fueling area; and
- (g) location where a fire might endanger the safety of workers.

5.10(2) An employer must ensure that a fire suppression system is provided and maintained

- (a) on each piece of equipment containing more than 100 litres of flammable hydraulic fluids;
- (b) on each piece of mobile equipment operated by remote control that was installed after March 2, 1995;
- (c) at each underground fuel storage area or fueling area where more than 500 litres of oil, grease or combustible liquids are stored; and
- (d) in a building or structure, except a fan house, located within 15 m of an opening to an underground mine.

5.10(3) A fire suppression system on a piece of remotely controlled mobile equipment installed after March 2, 1995 must be capable of being activated automatically or by remote control.

5.10(4) In this section, “**fire suppression system**” means a system installed to control a fire, and includes a water sprinkler system, foam generator system, dry chemical system and inert gas system.

Fire safety inspections

5.11 At least once in each month, an employer must

- (a) examine all of the following to ensure compliance with this regulation:

- (i) fire protection equipment, fire suppression systems and extinguishing systems,
 - (ii) escape routes and exits from underground,
 - (iii) refuge stations,
 - (iv) fire doors;
- (b) record the results of the examinations and the condition of the items referred to in clause (a) and any corrective action taken or planned; and
- (c) make available to the committee a copy of the record referred to in clause (b).

Storage of flammable material

5.12(1) The employer must ensure that flammable liquids, oil, grease or other combustible material is not stored or permitted to be stored in a headframe, shaft house, portal house, shaft station or building in which the outbreak of fire might endanger an entrance to the underground workings.

5.12(2) Despite subsection (1), an employer may store an amount of lubricating oil or grease which does not exceed the requirements for 24 hours of underground operations.

5.12(3) The employer must ensure that

- (a) flammable or combustible liquid that is stored at the mine is stored in a closed container; and
- (b) flammable or combustible material is stored in compliance with the *Manitoba Fire Code*, Manitoba Regulation 216/2006.

5.12(4) An employer must not store or permit to be stored underground at a mine

- (a) fuel, except
 - (i) quantities of 1,000 litres or less may be stored underground at a fueling station that complies with the requirements of clause 5.13(1)(b), and
 - (ii) quantities of more than 1,000 litres may be stored underground at a fuel storage area that complies with the requirements of section 5.15; and
- (b) lubricating oil or hydraulic oil in an amount that exceeds the requirements for seven days use.

Fueling powered mobile equipment underground

5.13(1) If an internal combustion engine is refueled underground, the employer must ensure that

- (a) except in the case where it is not practicable, the refueling is done at a fueling station;
- (b) each fueling station
 - (i) has a concrete floor,
 - (ii) has a curb or sump to contain any spills of fuel,
 - (iii) has a supply of noncombustible absorbent material to be used to absorb any spillage of fuel that could occur,
 - (iv) is conspicuously marked by signs bearing the words “Shut Off Engine While Refueling” and “No Smoking”,
 - (v) is equipped with suitable fire suppression equipment, and
 - (vi) is equipped with a device that operates automatically to shut off the flow of fuel in the event of breakage of the fuel supply piping;
- (c) before refueling, the engine is shut off and the battery isolated; and
- (d) arrangements are made so that any spillage in the refueling operation is removed at once, deposited in a fireproof receptacle and removed from the mine without undue delay.

5.13(2) An employer must not use or permit the use of a mobile refueling supply tank underground unless

- (a) notice is provided to a mines inspector, and a copy of the notice is provided to the committee;
- (b) the design of the tank is approved by a professional engineer; and
- (c) the tank is
 - (i) clearly labelled with “No Smoking” signs, and
 - (ii) equipped with suitable fire extinguishing equipment.

Fixed fuel delivery systems

5.14(1) If a fixed fuel delivery system is used to deliver fuel underground for use in an internal combustion engine, the employer must ensure that

- (a) the system is designed by a professional engineer and the design is
 - (i) provided to the committee for consultation, and
 - (ii) provided to a mines inspector;

- (b) safe work procedures are developed and implemented for the system that will ensure that
 - (i) an underground tank will not be overfilled,
 - (ii) all fuel transfer pipes are empty of fuel following completion of a fuel delivery operation,
 - (iii) only a predetermined quantity of fuel can be transferred in each fuel delivery operation, and
 - (iv) the fuel delivery system is maintained in such a manner as to prevent leakage;
- (c) all fuel tanks and piping meet the requirements of the *Manitoba Fire Code*, Manitoba Regulation 216/2006; and
- (d) all receiving tanks in the system incorporate a bottom filling arrangement.

5.14(2) The employer must

- (a) train workers in the safe work procedures developed and implemented under clause (1)(b); and
- (b) ensure that the workers comply with the safe work procedures.

Underground fuel storage

5.15 The employer must ensure that a fuel storage area underground

- (a) has
 - (i) a concrete floor,
 - (ii) a curb or sump that will contain a quantity of fuel equal to 110% of the maximum capacity of the largest storage tank at the location, and
 - (iii) adequate ventilation to dilute and remove any fumes produced; and
- (b) if it has a storage capacity in excess of 1,000 litres, is located within an enclosed structure constructed of noncombustible material and arranged so that all openings of the structure close automatically in the event of a fire.

Fuels on surface near underground workings

5.16 When liquid or gaseous fuels are used or stored on the surface at a mine, the employer must ensure that

- (a) the fuels are stored at a location that
 - (i) is more than 30 m from any shaft or other opening to the underground workings, and

- (ii) has the drainage sloped in a direction away from the location of a shaft or other opening to the underground workings;
- (b) every tank supplying fuel to a place inside a building or within 15 m of an opening to the underground workings is provided with
 - (i) a manually operated valve that can be used to shut off the flow of fuel in the event of a fire, and
 - (ii) a device that operates automatically to shut off the flow of fuel in the event of breakage of the fuel supply piping;
- (c) fuel tanks installed inside a building are so arranged that
 - (i) the transfer of fuel to the fuel tanks takes place outside the building,
 - (ii) the fuel is conducted to the tank in leak free piping,
 - (iii) the displaced air is vented to a safe point outside the building, and
 - (iv) a device is provided that prevents overfilling; and
- (d) suitably sized and located automatic or manual fire extinguishing systems are installed and maintained in accordance with the *Manitoba Fire Code*, Manitoba Regulation 216/2006.

Prohibition of transfer of fuel by air

5.17 A worker must not transfer, or be permitted by an employer to transfer, a flammable or combustible liquid by the direct application of air pressure.

Combustible refuse

5.18(1) The employer must ensure that

- (a) oily rags and other similar combustible refuse in and about the mine are deposited in covered metal containers;
- (b) oil and grease that is removed from electrical or mechanical equipment in or about the mine and not replaced in the equipment is promptly removed from the mine in covered containers;
- (c) underground workings, shaft stations, headframes and buildings at the mine are kept clear of accumulations of combustible materials; and
- (d) timber that is underground but that is not in use and not intended for use in current operations is promptly removed from underground.

- 5.18(2)** The employer must
- (a) develop safe work procedures for the removal of combustible refuse;
 - (b) train workers in the safe work procedures; and
 - (c) ensure that workers comply with the safe work procedures.
- 5.18(3)** The employer must ensure that a written report, certifying that there is no accumulation of combustible refuse at the mine is made weekly by each supervisor to the employer and that a copy of the report is made available to the committee upon request.

Welding and cutting underground or near underground

- 5.19(1)** If gas or electric welding or cutting equipment, blow torches or other heat-producing devices or materials for doing hot work are used at a mine at a location in which the outbreak of fire might endanger an entrance to the underground workings, the employer must develop and implement safe work procedures that require the following precautions to be taken:
- (a) all combustible material within a radius of 3 m, or upon which sparks or hot metal could fall, be made wet with water before hot work is begun and again after hot work is finished, or be protected against ignition by the use of non-combustible materials;
 - (b) the area where hot work is done be inspected for smouldering fires between one and two hours after hot work is finished;
 - (c) fire-fighting equipment is on hand at all times during the operation and until completion of the inspection referred to in clause (b);
 - (d) no hot work be done within 8 m of the place where an explosive is stored or being transported;
 - (e) flash back arresters must be installed on all welding or cutting torches at the torch end.
- 5.19(2)** The employer must ensure that propane or other similar fuel gas that is heavier than air is not permitted or stored underground unless
- (a) a proposal for its use is provided to the committee for consultation and provided to a mines inspector;
 - (b) the employer has developed and implemented safe work procedures for the use and storage of the fuel gas underground;
 - (c) the fuel gas is used only for tasks which involve burning or cutting and only if there are no other reasonable and practicable means of accomplishing the task;

- (d) the fuel gas containers are suitable for underground use and are not larger than 12 kg in capacity;
- (e) the fuel gas containers are not stored underground in greater quantities than is sufficient for the task; and
- (f) at no time are more fuel gas containers than what are required for one operating shift stored underground.

5.19(3) The employer must

- (a) train workers in the safe work procedures developed and implemented under this section; and
- (b) ensure that workers comply with the safe work procedures.

Fires underground

5.20 A person must not permit a fire to be built, set or maintained underground except as is required for the use of a cutting or welding torch.

DIVISION 2 – SURFACE

Emergency procedures on surface

5.21(1) The employer must

- (a) in consultation with the committee, establish written procedures to be followed in the event of a fire or other emergency on the surface at a mine that effectively provide for the safety of all workers and the control of the fire or other emergency;
- (b) post copies of the emergency procedures, or extracts from the procedures, in conspicuous places on the surface;
- (c) maintain at the mine, ready for instant use, an emergency warning system that is
 - (i) audible to all persons at the mine, and
 - (ii) distinct in sound so as not to be confused with another warning sound; and
- (d) at least annually, instruct each worker on
 - (i) the emergency procedures that relate to the worker's safety,
 - (ii) the recognition of any emergency warning system or systems in use at the mine,
 - (iii) the escape routes and exits, and
 - (iv) the location of each designated safe assembly area.

- 5.21(2)** The employer must conduct tests of the emergency procedures and emergency warning systems at least once in each year and, within, seven days of a test, provide a report on the effectiveness of the procedures and systems to a mines inspector and the committee.
- 5.21(3)** If a test conducted under subsection (2) shows a deficiency of the emergency procedures or emergency warning system, the employer must
- (a) immediately make any change necessary to correct the deficiency and test the effectiveness of the revised procedure or system;
 - (b) provide a report within seven days of the test of the revised procedure or system to a mines inspector and the committee; and
 - (c) inform all workers that may be affected of the changes made in the procedure or system.
- 5.21(4)** In the case of a proposed mine, before commencing development of the mine, the employer must provide to a mines inspector proposed written emergency procedures to be followed in the event of a fire or other emergency, and a proposed emergency warning system.

Fire protection equipment

- 5.22** The employer must ensure that suitable fire extinguishing equipment is provided and maintained at a suitable location in any combustible building or closed in structure on the surface.

DIVISION 3 – UNDERGROUND AND SURFACE

No smoking areas

- 5.23** For greater certainty, *The Non-Smokers Health Protection Act* and regulations under that Act apply at a mine.

Second worker in remote location

- 5.24** If a worker operates a cutting torch or other burning equipment, the employer must employ, in addition to the operator, a second competent worker to attend to the operation of the cylinder control devices and to guard against any outbreak of fire, where cylinders of acetylene, oxygen or other compressed gas are operated from
- (a) within any cage, skip or other shaft conveyance where a potential fire hazard exists; or
 - (b) a location not readily accessible to the worker operating the cutting torch or other burning equipment.

Transporting compressed gas cylinders

- 5.25(1)** If one or more cylinders of oxygen, acetylene or other compressed gas are transported at a mine, the employer must ensure that the following precautions are implemented:
- (a) all fittings, regulators, and manifolds, are to be disconnected from each cylinder, and the valve of the cylinder protected by a protective cap;
 - (b) the protective cap is removed only at the point of use, and is replaced before a cylinder is left unattended or moved to a new location; and
 - (c) every other practicable measure is taken to prevent damage to or failure of the cylinders or equipment used with the cylinders.
- 5.25(2)** Despite subsection (1), short moves of cylinders for continued use in the same work area on the same level may be carried out without removal or disconnection of the fittings, regulators and manifolds if the cylinders are moved on a carrier designed for the purpose and remain under the care of the person using the cylinders.

Cylinders left unattended

- 5.26** Clause 5.25(1)(b) does not apply to a cylinder left unattended if the cylinder is
- (a) connected by a manifold system;
 - (b) located in a shop area;
 - (c) protected from damage; and
 - (d) closed by the main valve of the cylinder.

PART 6 CARE AND USE OF EXPLOSIVES

GENERAL PROVISIONS

Safe work procedures

- 6.1(1)** If explosives are used at a mine, the employer must
- (a) develop and implement safe work procedures for the care and use of explosives;
 - (b) train blasters and other workers in those safe work procedures that apply to them; and
 - (c) ensure that the blasters and other workers comply with those safe work procedures.
- 6.1(2)** The procedures developed under clause (1)(a) must include
- (a) procedures for removing any misholes, including
 - (i) the type of explosives that may be washed out of the mishole, and
 - (ii) the equipment and method to be used;
 - (b) a list of the equipment to be used for the handling of explosives in a magazine;
 - (c) a procedure for transporting explosives at the mine;
 - (d) procedures for each type of blasting operation conducted or to be conducted at a mine;
 - (e) procedures for the use of explosives used to blast or break up material that, by reason of the heated condition of the material, may cause a premature explosion; and
 - (f) for a gypsum mine, a mine containing soluble minerals or any other area where water can not be used as part of the procedure for checking for misholes, an alternative procedure for checking each face for misholes before drilling is commenced.
- 6.1(3)** The employer must provide the procedures required to be developed and implemented under clause (1)(a) to a mines inspector.

Introduction of new explosives

- 6.2** Before the employer introduces any new types of explosives or blasting systems for use at a mine, the employer must
- (a) consult with the committee;

- (b) revise the safe work procedures developed in clause 6.1(1)(a); and
- (c) provide the revised safe work procedures to a mines inspector.

Precautions with explosives

6.3(1) At a mine, a person must not

- (a) smoke while handling explosives or while within 8 m of a place where explosives are stored or being handled;
- (b) take into or make an open flame within 8 m of a place where explosives are stored or being handled;
- (c) abandon or leave any explosive unattended; or
- (d) commit a dangerous or careless act
 - (i) in or about a mine with an explosive, or
 - (ii) where explosives are stored or being handled.

6.3(2) For the purpose of clause (1)(c), an explosive is not abandoned or left unattended if it is

- (a) loaded into a load hole, as provided for in section 6.26;
- (b) placed in a licenced magazine, as provided for in section 6.33;
- (c) placed in a receptacle, as provided for in section 6.34; or
- (d) placed in a designated storage place that meets the requirements of subsection 6.36(3).

Report of dangerous act or occurrence

6.4(1) A worker must report to the employer immediately upon witnessing or discovering

- (a) a dangerous or careless act involving an explosive;
- (b) an unsafe condition involving an explosive; or
- (c) an occurrence that causes the worker to suspect that an explosive might be defective.

6.4(2) An employer must immediately report to a mines inspector and the committee

- (a) the commission of a dangerous or careless act reported under clause (1)(a); or
- (b) the occurrence of a defective explosive.

6.4(3) When reporting an occurrence of a defective explosive to a mines inspector, the employer must include

- (a) the name of the manufacturer of the defective explosive;

- (b) if available, the packing slip from the original container of the explosive; and
- (c) all other relevant information available.

Removal of explosives from mine

- 6.5** A person must not remove or cause to be removed from a mine any explosive except
- (a) on the written instructions of the employer; and
 - (b) after having notified a mines inspector.

Prohibition re warming explosives

- 6.6** No person shall use an open fire, a steam boiler or direct contact with steam or hot water to warm an explosive.

Care and use of magazines

- 6.7(1)** The employer must ensure that each magazine at a mine
- (a) is in the charge of an authorized person; and
 - (b) has posted on it or in the vicinity of it a valid licence issued for it under section 6.33, together with a list of the requirements in Part 6 relating to the care and use of explosives.
- 6.7(2)** The employer must ensure that
- (a) when explosives are removed from a magazine for use that the explosives that have been stored in the magazine the longest are removed first;
 - (b) explosives in a magazine that are found to have deteriorated are promptly removed from the magazine and disposed of in a safe manner without delay;
 - (c) tools and equipment used in the magazine for opening and handling explosive containers or for the preparation and capping of safety fuses are of a type designed for the purpose;
 - (d) the shelves and floors of a magazine are treated when necessary with a neutralizing agent to remove any trace of nitroglycerine-based explosive substances; and
 - (e) a magazine is kept clean.
- 6.7(3)** The employer must ensure that no article made of iron or steel, other than an article on a person, is taken into a magazine that contains a nitroglycerin-based explosive.

Heating device in magazine

- 6.8(1)** If a heating device is installed inside a magazine at a mine, the employer must ensure that
- (a) the heating device
 - (i) does not directly involve the combustion of fuel,
 - (ii) is enclosed in a compartment or enclosure, and
 - (iii) meets the requirements of Part 11;
 - (b) all exposed surfaces of the heating device are maintained at a temperature that does not exceed 100E C;
 - (c) a continuous record of the temperature within the magazine is maintained at all times the heating system is in operation; and
 - (d) a barrier that prevents explosives or their containers from coming into contact with the heating device is maintained, or the heating device is maintained at least the minimum distance from explosives or their containers in accordance with the heating device's manufacturer's specifications.
- 6.8(2)** The compartment or enclosure referred to in subclause (1)(a)(ii) must be separate from the explosives and constructed of noncombustible material.

Storage of explosives if mining is suspended

- 6.9(1)** If blasting operations at an underground or open pit mine are to be suspended for 90 days or more, the employer must ensure that
- (a) at the beginning of the suspension, all explosives underground at the mine are removed and stored in a magazine on surface or returned to the supplier; and
 - (b) a mines inspector and the committee are notified of the suspension of blasting operations.
- 6.9(2)** If blasting operations at an underground or open pit mine are to be suspended for less than 90 days, explosives may be left in storage in a licenced magazine at the mine if the employer ensures that
- (a) each magazine used to store explosives is inspected weekly;
 - (b) any deteriorated explosives are removed from the magazine immediately and destroyed; and
 - (c) the magazine is secured to prevent theft of the explosives.

Primers

- 6.10** The employer must ensure that
- (a) only the number of primers that are sufficient for the immediate work at hand are made up at any one time; and
 - (b) when primers are made up, they are made up as near as is practicable to the place where they are to be used.

Safety fuses

- 6.11** If a safety fuse is used in a blasting operation at a mine, the employer must ensure that
- (a) safety fuses are only used for single shot or blast detonation; and
 - (b) the safety fuses used are,
 - (i) in the case of capped safety fuse, of uniform, standard length no less than 3 m that are designed for the operation at hand, or
 - (ii) in the case of uncapped safety fuses, have the length of the fused clearly marked on the fuse.

BLASTING CERTIFICATES

Blasting certificates at underground or open pit mine

- 6.12(1)** No employer shall permit a person to use or supervise the use of explosives in or about an underground mine or an open pit mine unless the person holds an unexpired certificate issued by the employer under section 6.13 or a mines inspector under section 6.14.
- 6.12(2)** No person shall use or handle explosives in or about an underground mine or an open pit mine unless the person holds an unexpired certificate issued by the employer under section 6.13 or a mines inspector under section 6.14.
- 6.12(3)** This section does not apply to a worker who is
- (a) acting under the direct supervision of and assisting another worker who is the holder of a blasting certificate issued under sections 6.13 or 6.14; or
 - (b) involved solely in the transportation of explosives.

Blasting certificates issued by employer – underground or open pit mine

6.13(1) The employer may issue a blasting certificate to a worker if

- (a) the worker
 - (i) has been trained in the safe work procedures developed under clause 6.1(1)(a),
 - (ii) has been examined by the employer and found to know the safe work procedures and the sections of this regulation pertaining to the handling and use of explosives, and
 - (iii) is not prevented from being re-issued a blasting certificate under clause (5)(c) or subsection 6.14(4); and
- (b) the employer is satisfied as to the competency of the worker to conduct the type and scope of blasting at the mine or mines that are specified in the certificate.

6.13(2) A blasting certificate issued by an employer to a worker under this section

- (a) is valid for the period specified on the certificate, which must not exceed two years from the day it is issued; and
- (b) must specify each type of blasting operation that the worker is authorized to perform.

6.13(3) The employer must keep every current blasting certificate that the employer has issued under this section.

6.13(4) The employer must cancel a worker's blasting certificate if

- (a) the worker has ceased to be employed by the employer; or
- (b) the employer is satisfied that the worker
 - (i) has committed a careless act with an explosive,
 - (ii) has contravened any regulation respecting the use or handling of explosives, or
 - (iii) is suffering from physical or mental infirmity likely to be detrimental to the safe discharge of his or her duties as a blaster.

6.13(5) If a worker's blasting certificate is cancelled under clause (4)(b),

- (a) the worker must not
 - (i) work at a mine in an occupation that involves the use or handling of explosives,

- (ii) assist another worker who is the holder of a blasting certificate by using or handling explosives in any way, or
 - (iii) transport explosives;
- (b) the employer must not require or permit the worker to do any of the things prohibited under clause (a); and
- (c) the employer may only re-issue a blasting certificate to the worker once
 - (i) at least 30 days have expired from the date the certificate was cancelled,
 - (ii) notice of the certificate being reissued has been given to a mines inspector, and
 - (iii) the employer is satisfied that the worker meets the requirements under clauses (1)(a) and (b) in respect of the certificate to be re-issued.

Blasting certificates issued by mines inspector – underground or open pit mine

6.14(1) A mines inspector may issue a blasting certificate to a person if

- (a) the person is self-employed and is not ineligible to be issued a blasting certificate under clause 6.13(5)(c) or subsection (4); and
- (b) the inspector has examined the person and found him or her to be knowledgeable in the safe practices, rules and sections of this regulation pertaining to the handling and use of explosives for the purpose of the mining activity to be undertaken at an underground mine or an open pit mine.

6.14(2) A blasting certificate issued by a mines inspector

- (a) is valid for the period specified in the certificate, which must not exceed three years from the day it is issued; and
- (b) must specify each type of blasting operation that the person is authorized to perform.

6.14(3) A mines inspector must cancel a person's blasting certificate if satisfied that the person

- (a) has committed a careless act with an explosive;
- (b) has contravened any regulation respecting the use or handling of explosives; or
- (c) is suffering from physical or mental infirmity likely to be detrimental to the safe discharge of his or her duties as a blaster.

6.14(4) A mines inspector may review the cancellation of a certificate under subsection (3) and may, a minimum of 30 days after a person's certificate was cancelled, re-issue a blasting certificate to the person.

Blasting certificates at a quarry

6.15(1) This section applies to a quarry.

6.15(2) A mines inspector may issue a blasting certificate to a person if

- (a) the inspector has examined the person and found him or her knowledgeable in the safe practices, rules and sections of this regulation that pertain to the handling and use of explosives for the purpose of the mining activity to be undertaken at a quarry; and
- (b) the person is not prevented from being re-issued a blasting certificate under subsection (8), clause 6.13(5)(c) or subsection 6.14(4).

6.15(3) An employer must not permit a person to use or supervise the use of explosives in or about a quarry unless the person holds a certificate issued by a mines inspector under subsection (2).

6.15(4) A person must not use or handle explosives at a quarry unless the person holds a certificate issued by a mines inspector under subsection (2).

6.15(5) Subsections (3) and (4) do not apply to a worker who is

- (a) acting under the direct supervision of and assisting another worker who is the holder of a blasting certificate issued under subsection (2); or
- (b) involved solely in the transportation of explosives.

6.15(6) A certificate issued under this section

- (a) is valid for the period specified on the certificate, which must not exceed three years from the day it is issued; and
- (b) must specify the type of blasting operation that the person is qualified to perform.

6.15(7) A mines inspector must cancel a person's blasting certificate if satisfied that the person

- (a) has committed a careless act with an explosive;
- (b) has contravened any regulation concerning explosives; or
- (c) is suffering from physical or mental infirmity likely to be detrimental to the safe discharge of his or her duties.

- 6.15(8)** A mines inspector may review the cancellation of a certificate under subsection (7) and may, a minimum of 30 days after a person's certificate was cancelled, re-issue a blasting certificate to the person.
- 6.15(9)** If a person's blasting certificate is cancelled under subsection (7),
- (a) the person must not
 - (i) work at a quarry in an occupation that involves the use or handling of explosives,
 - (ii) assist another worker who is the holder of a blasting certificate by using or handling explosives in any way, or
 - (iii) transport explosives; and
 - (b) an employer must not require or permit the person to do any of the things prohibited under clause (a).

Reconsideration

- 6.16(1)** A person who holds a blasting certificate that has been cancelled under subsection 6.13(4), 6.14(3) or 6.15(7) may request the director to reconsider the cancellation by filing a request with the director within 14 days after receiving notice that his or her certificate has been cancelled.
- 6.16(2)** A request for a reconsideration must be in writing and must set out the grounds upon which the request is made.
- 6.16(3)** The director must decide the request for reconsideration and may
- (a) confirm or rescind the cancellation;
 - (b) increase or decrease the length of the period before a blasting certificate may be re-issued to the person; or
 - (c) set out terms and conditions to be fulfilled by the person before the person is to be considered eligible to be re-issued a blasting certificate.
- 6.16(4)** The director may hold a hearing when reconsidering a cancellation but is not required to do so.
- 6.16(5)** For a hearing, the director may establish rules of practice and procedure and is not bound by the rules of evidence that apply to judicial proceedings.

Blasting operations

6.17 The employer must

- (a) appoint a worker or person who holds a valid blasting certificate issued under
 - (i) subsection 6.13(1) or 6.14(1) to be in charge of every blast at a mine other than a quarry; or
 - (ii) subsection 6.15(2) to be in charge of every blast at a quarry;
- (b) ensure that the workers referred to in clause (a) carry lights, unless the blasting operation is conducted on the surface in daylight or under artificial light;
- (c) provide a safe location for all workers during a blasting operation at a mine;
- (d) ensure that, when more than one shot is to be fired using safety fuses, at least two workers are present at the blasting operation;
- (e) fix the time for blasting so that the workers are exposed as little as possible to dust, fumes and smoke;
- (f) prohibit workers from entering a blasting area after a blast until the area has been ventilated as required under section 17.3 and determined to be safe;
- (g) maintain a clock keeping accurate time to enable the workers to check their watches before going underground; and
- (h) if necessary for the safety of the workers, coordinate times of blasting at the mine with times of blasting at connecting or adjacent claims or mines.

Requirements for loading and blasting

6.18 The employer must ensure that the following requirements are followed in respect of the loading of explosives and blasting at a mine:

- (a) all drill holes must be of sufficient size to permit the easy and unobstructed insertion of the explosive charge to the bottom of the hole;
- (b) no hole may be charged with explosive
 - (i) in any face where drilling is being performed, or
 - (ii) in any bench where drilling is being performed within 8 m of the hole to be charged;
- (c) an explosive in cartridge form must be left in its original wrapper;

- (d) before charging a hole with explosives, the hole must be clear of obstructions;
- (e) in charging holes for blasting, no iron or steel tool, rod or pipe may be used and no iron or steel tool may be inserted in a hole containing explosives;
- (f) when holes are loaded pneumatically with explosives,
 - (i) semi-conductive hose manufactured for such purpose must be used,
 - (ii) loading equipment and mobile equipment designed for loading must be adequately grounded,
 - (iii) loading equipment must not be in electrical contact with the mine grounding system except if the loading equipment is electrically powered, and
 - (iv) if electrical blasting detonators are used in the hole,
 - (A) no plastic or other non-conducting liners may be used, and
 - (B) the detonator must not be placed in the hole until pneumatic loading of the hole is completed, unless an alternative safe work procedure has been detailed by the employer under clause 6.1(1)(a);
- (g) each hole charged with explosives must have a detonating agent placed in the charge;
- (h) each charge must be fired in its proper sequence in the round;
- (i) all holes that are charged with explosives in one loading operation must be fired in one blasting operation, unless an alternative safe work procedure has been detailed by the employer under clause 6.1(1)(a);
- (j) no safety fuse shorter than 3 m may be used in a blasting operation and no safety fuse may be trimmed or ignited except at the end;
- (k) the burning time of a spitter or timing device must be less than that of one-half the length of the shortest safety fuse used and persons lighting the blast must retreat immediately after the first spitter or timing device goes out;
- (l) in a workplace where primary blasting is not performed, secondary blasting must not be conducted using tape safety fuses;
- (m) hang ups, including blockages in a raise or chute that prevents the free flow of material, must not be blasted using a safety fuse.

Warning of blast

6.19(1) Before a blast is fired the worker responsible for firing the blast must ensure that

- (a) all persons have left the blasting site and any place in the vicinity that is endangered by the blast, including any possible intersection of a drill hole;
- (b) all approaches to the blasting site and other places endangered by the blast are guarded by a worker in order to prevent access until the blast is fired and the applicable interval set out in section 6.20 has elapsed;
- (c) due warning is given in every direction by shouting "Fire"; and
- (d) a siren or whistle is sounded at any surface blasting operation where the extent of the blasting operation renders the warning required under clause (c) to be ineffective.

6.19(2) Where a siren or whistle is required to be sounded, the employer must

- (a) provide a siren or similar equipment;
- (b) develop a code of signals to be used when sounding the siren or whistle in consultation with the committee; and
- (c) provide a copy of the code of signals to a mines inspector.

6.19(3) If electric blasting is done simultaneously in various zones, areas or levels of a mine from a single source of electricity, the employer must ensure that all workers are checked out of the affected locations before the blasting and the blast must not be fired except on the direct instructions of the person in charge of the mine at the time of the blast.

Interval before return to scene of blast

6.20(1) A worker must not enter or return to, and an employer must not require or permit a worker to enter or return to, a workplace affected by a blasting operation

- (a) if a safety fuse is used in connection with the blast, until
 - (i) the time elapsed after the last shot is heard is the greater of 30 minutes or a time in minutes equal to 10 times the number of metres in the longest safety fuse, and
 - (ii) if underground, the blasting area has been ventilated as required by section 17.3;
- (b) subject to subsection (2), if the firing is done by means of delay-action detonators and any shot has fired, until 10 minutes elapse from the time the blast was initiated;

- (c) if a single shot is detonated electrically underground, until the blasting area has been ventilated as required by section 17.3;
- (d) if a misfire occurs or is suspected,
 - (i) if a safety fuse was used, until the time elapsed after the last shot is heard or should have been heard is the greater of 30 minutes or a time in minutes equal to 10 times the number of metres in the longest safety fuse, or
 - (ii) if electric detonators were used, until 30 minutes elapse from the time of closing the blasting circuit; or
- (e) when a misfired hole is reblasted,
 - (i) until 30 minutes elapse from the time of closing the blasting circuit,
 - (ii) if more than one shot is involved, until 30 minutes elapse from the time the last shot is heard, or
 - (iii) if a safety fuse is used, until the time elapsed after the last shot is heard is the greater of 30 minutes or a time in minutes equal to 10 times the number of metres in the longest safety fuse.

6.20(2) If an explosive charge is being fired electrically and no shot is heard and a faulty circuit is indicated, the employer may have the circuit repaired immediately, but only if the requirements prescribed under clause 6.27(d) are complied with.

Misfires

6.21(1) If an explosive charge has misfired or been cut off the employer must, at a safe time and without undue delay, ensure that the charge is

- (a) reblasted; or
- (b) subject to subsection (2), withdrawn or washed out.

6.21(2) A worker must not and an employer must not require or permit a worker to withdraw or wash out an explosive charge that contains a detonator or an explosive that is

- (a) nitroglycerine sensitized;
- (b) not water soluble; or
- (c) not designated in the procedures developed under clause 6.1(2)(a).

6.21(3) If at the end of an operating shift, there is or is suspected to be a mishole that has not been reblasted or, if reblasted, a mishole that has not been checked,

- (a) the worker in charge of the blasting must report that fact, together with the location of the hole if known, to his or her supervisor who must report it to the supervisor in charge of the next shift of workers going into the blasting site; and
- (b) the report referred to in clause (a) must be recorded by the supervisor in the shift log and countersigned by the oncoming supervisor before work is commenced by that shift of workers.

Electrical storms

6.22(1) At an open pit, quarry or shaft being sunk from the surface, the employer must provide a means of detecting the approach of an electrical storm.

6.22(2) On the approach of an electrical storm to an open pit, quarry or shaft being sunk from the surface, the employer must

- (a) not permit loading of explosives to be commenced or continued; and
- (b) if holes have been loaded with explosives, ensure that all workers are withdrawn from the area and remain at a safe distance until the danger from the electrical storm passes.

Distance of machinery from loaded holes

6.23(1) The employer and each worker must ensure that the following do not come within 8 m of any location where explosives are placed as part of a blasting operation, including the collar of a hole which is loaded or being loaded with explosives:

- (a) powered mobile equipment that is equipped with an internal combustion engine, other than the powered mobile equipment used to transport explosives;
- (b) a part of any machinery, other than the powered mobile equipment used to load explosives or transport stemming.

6.23(2) Subsection (1) does not apply to mobile equipment under the supervision of the person in charge of blasting that is being used

- (a) to clear a blocked hole;
- (b) to drill a hole for reblasting a mishole, as provided for under subsection 6.43(2);
- (c) while loading a hole that is likely to cave in; or
- (d) to condition the ground.

Blasting of heated material

6.24 If explosives are used to blast or break up material that by reason of its heated condition might cause a premature explosion, the employer must ensure that only explosives manufactured for blasting in heated conditions are used.

Intersection of drill holes

6.25 If a mine working is advanced toward a drill hole, the employer must ensure that the collar and the nearest points of intersection of the hole are securely closed off or guarded by a worker at all times during any blasting that is being done within 4.5 m of any possible intersection of the hole.

Loaded holes to be guarded

6.26 The employer must ensure that a place where holes have been loaded with explosives but the loading crews are not present is protected against unauthorized entry

- (a) if underground, by barricades with signs or guards; or
- (b) if on surface, by an authorized person being physically present.

Precautions when blasting by electricity

6.27 Where blasting is being done by means of electricity, the employer, and each worker must implement the following precautions:

- (a) the ends of the firing cables or wires leading to the blasting site must be short-circuited while the leads from the blasting caps are being connected to each other and to the firing cables or wires;
- (b) the short circuits referred to in clause (a) must not be removed until all workers have retreated from the blasting site;
- (c) before a worker enters or re-enters the blasting area,
 - (i) the firing cables or wires must be removed from the source of electricity and short-circuited, and
 - (ii) if used, the blasting switch must be locked in the open position;
- (d) if a portable blasting device is used as the source of electricity,
 - (i) the firing cables or wires must not be connected to the blasting device until the area is cleared and the leads are required for the immediate firing of shots, and
 - (ii) the firing cables or wires must be disconnected and short-circuited immediately after the shots are fired;

- (e) if electric blasting is energized by a power distribution system,
 - (i) each workplace must have its own switch, which must be kept in the open position until the blast is ready to fire, and
 - (ii) the system must be designed with switches at all cable junctions suitable to give the protection required under clause (d);
- (f) the blasting circuit cables or wires must not be permitted to come in contact with lighting or power cables or other metallic conductors of electricity.

Blasting devices

6.28 If the supply of energy to a blasting device at the mine is fed from a power distribution system, the employer must ensure that the blasting device conforms to clause 3.7 of the CSA Standard CAN3-M421, *Use of Electricity in Mines*.

Blasting with electronic devices

6.29(1) In addition to the safe work procedures developed under clause 6.1(1)(a), before electronic detonators or an electronic blasting system is used at a mine, the employer must

- (a) develop safe work procedures for the use of the electronic detonators or an electronic blasting system in accordance with the manufacturer's specifications;
- (b) ensure the safe work procedures comply with the recommendations of the Institute of Makers of Explosives;
- (c) train workers in the safe work procedures; and
- (d) ensure that workers comply with the safe work procedures.

6.29(2) All blasting lines used for electronic blasting must use a dedicated circuit.

Precautions re radio transmitters

6.30 A person at a mine must not use, and an employer must not permit a worker or other person to use, electrical blasting caps, electric squibs or electric starters in the presence of radio transmitters or other radio frequency fields, except in accordance with the Institute of Makers of Explosives, Safety Library Publication No. 20, *Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electrical Detonators*.

Use of explosives

6.31(1) An employer must not

- (a) use or permit to be used underground at a mine an explosive that is not classified as Fume Class I, as established by the Explosives Regulatory Division of the Department of Natural Resources of the Government of Canada; or
- (b) manufacture or mix or permit the manufacturing or mixing of an explosive or any material for use as an explosive underground at a mine.

6.31(2) Despite clause (1)(a), an explosive that is not classified as Fume Class I may be used underground if before its use the employer has

- (a) identified the quantity and type of noxious fumes that can be expected to be produced by the explosive;
- (b) developed and implemented safe work procedures that ensure no worker is exposed to fumes that could endanger the worker's health or safety;
- (c) provided a copy of the safe work procedures developed under clause (b) to
 - (i) the committee, and
 - (ii) a mines inspector;
- (d) trained workers in the safe work procedures; and
- (e) ensured that workers comply with the safe work procedures.

6.31(3) Clause (1)(a) and subsection (2) do not apply to an explosive that is used for detonating purposes or as a primer.

Storage of explosives underground

6.32(1) An employer must not store or permit explosives to be stored underground at a mine except

- (a) in a magazine licenced under section 6.33; or
- (b) in a receptacle that meets the requirements of section 6.34.

6.32(2) An employer must not permit

- (a) a magazine or receptacle used to store explosives underground at a mine to be located within 60 m of
 - (i) a hoist room,
 - (ii) a shaft station,

- (iii) a refuge station,
 - (iv) a transformer station,
 - (v) a fuel storage area,
 - (vi) a garage or shop, or
 - (vii) a ramp that is the sole access to a workplace; and
- (b) in the case of a receptacle, a receptacle to be located
- (i) where powered mobile equipment could collide with it, or
 - (ii) where it could be at risk of impact damage, such as a chute platform.

6.32(3) Despite subclauses (2)(a)(i) and (ii), a quantity of explosives not exceeding 5 kg may be stored within 60 m of a hoist room or shaft station if the explosives

- (a) are in a receptacle;
- (b) are not less than 2 m from a shaft timber or main structural member of a building; and
- (c) can be removed readily in the event of a fire.

6.32(4) Despite subclause (2)(a)(vii), explosives may be stored within 60 m of a ramp if

- (a) a mines inspector is notified;
- (b) no other location is determined to be practical, after consultation with the committee; and
- (c) the excavation in which the explosives are placed is at such an angle to the ramp so as to protect against inadvertent contact.

Licencing of magazines

6.33(1) Before applying for a licence in respect of an underground magazine, the employer must consult with the committee regarding the planned construction and location of the magazine, which consultations must include consulting on the content of the plans referred to in clauses (2)(b) and (c).

6.33(2) An application for a licence for an underground magazine must be made in writing to a mines inspector and must contain

- (a) a statement of the quantity, class and division of the explosives to be stored in the magazine;
- (b) a plan showing the proposed construction specifications of the magazine, including locking devices, electrical equipment, hoisting equipment, ventilating provisions and heating devices;

- (c) a plan showing the proposed location of the magazine in relation to the mine workings within 100 m on the level of the proposed magazine, drill holes drilled from or intersected by the magazine excavation and the quantity and direction of ventilating air flow; and
- (d) a statement that the employer has consulted with the committee regarding the plans referred to in clauses (b) and (c).

6.33(3) A mines inspector may issue a licence for an underground magazine if satisfied that the magazine meets the prescribed requirements and has been constructed in accordance with the application submitted under subsection (2).

6.33(4) A licence for a magazine must specify

- (a) the maximum quantity of explosives to be stored in the magazine;
- (b) the location of the magazine; and
- (c) the expiry date of the licence.

Receptacles used for explosive

6.34(1) An employer must ensure that a receptacle used to store an explosive underground at a mine is

- (a) used exclusively for the storage of explosives;
- (b) well and substantially constructed;
- (c) constructed in a manner to prevent any sparking due to friction;
- (d) adequately ventilated;
- (e) painted red, and bears the words "Danger Explosives" conspicuously displayed on it in a colour that contrasts with the red background; and
- (f) separated from any other receptacle by a distance of at least 8 m.

6.34(2) An employer must ensure that a receptacle

- (a) contains no more than the quantity of explosives required for use during an operating shift; and
- (b) is emptied of explosives at the end of each operating shift.

Storage of detonators

6.35 An employer must not store or allow detonators to be stored underground at a mine

- (a) in the same magazine or receptacle as other explosives; or

- (b) in a magazine or receptacle located in a drift with common access to both the detonators and explosives, unless they are separated by at least 8 m.

Storage of explosives underground

6.36(1) The employer must not permit

- (a) the quantity of explosives stored in an underground magazine to exceed the capacity of magazine, as that capacity is specified in the licence issued for the magazine; or
- (b) more than 150 kg explosives to be stored underground in a receptacle.

6.36(2) Despite subsection (1), where long hole blasts or similar blasting operations are being carried on underground at a mine, the quantities of explosives that can be loaded in a 24-hour period may be stored in a storage place designated by the employer.

6.36(3) A storage place designated by an employer under subsection (2) must be

- (a) as close as reasonably practicable to the blasting operation;
- (b) secured against unauthorized access when unattended, including by the use of barriers; and
- (c) marked by warning signs.

Magazine to be equipped with record book

6.37 An employer must ensure that each underground magazine is provided with a record book that

- (a) is used to record the amount of explosives
 - (i) added to the magazine,
 - (ii) removed from the magazine, and
 - (iii) returned to the magazine; and
- (b) is signed and dated by the worker who adds, removes or returns explosives to the magazine.

Weekly examination of underground storage place

6.38 An employer must ensure that

- (a) each underground magazine, receptacle and storage place is examined at least once in each week to ascertain whether it meets the prescribed requirements;

- (b) the person making the examination reports in writing to the employer
 - (i) the condition found in the magazine, receptacle or designated storage place, and
 - (ii) the quantity of explosives it contains;
- (c) a report made under clause (b) is kept on file by the employer for at least two years from the day it is received; and
- (d) a copy of a report is made available to the committee on request.

Transporting explosives

6.39(1) If explosives are transported underground at a mine, the employer must ensure that

- (a) an authorized person is in charge of the explosives until they are deposited at their designated destination;
- (b) the transfer of explosives to their designated destination is effected without delay;
- (c) subject to subsection (3), the explosives are in a suitable closed container;
- (d) detonators are kept separate from the explosives;
- (e) detonators, when transported in powered mobile equipment, are in their original unopened container or in a suitable, labelled and enclosed container; and
- (f) any powered mobile equipment used for transporting explosives
 - (i) is equipped with a type ABC fire extinguisher suitable for the size of the powered mobile equipment,
 - (ii) is not loaded in excess of 80% of the rated carrying capacity of the powered mobile equipment, and
 - (iii) has the compartment that contains the explosives lined with non-sparking material when transporting nitroglycerine based explosives.

6.39(2) The employer must ensure

- (a) if explosives are transported in a shaft, that
 - (i) the authorized person in charge of transporting the explosives gives notice to the hoist operator and to the person designated to be in charge of the shaft before the explosives are transported in a shaft conveyance,
 - (ii) no radio or signaphone is used in the shaft conveyance while detonators are being transported, and

- (iii) if powered mobile equipment is used to transport explosives, prior clearance for the right-of-way of the powered mobile equipment is arranged; and
- (b) if explosives are transported by rail in an underground mine,
 - (i) any locomotive is kept on the forward end of the train,
 - (ii) the explosives are carried in a car that is separated from any locomotive by an empty car or a drawbar of equivalent length, and
 - (iii) the car carrying explosives is protected from contacting a trolley wire and from any spark from a trolley wire.

6.39(3) A person may carry capped safety fuse and detonators with explosives without putting them in a container if they are kept separate from the explosives.

Precautions before drilling

- 6.40(1)** A worker must not commence drilling underground at a mine until the worker has
- (a) carefully examined the exposed faces for misholes;
 - (b) washed the exposed faces with water and washed and cleaned out any bootlegs with rigid non-sparking scrapers or wash pipes;
 - (c) marked
 - (i) the misholes in accordance with subsection (3), and
 - (ii) the bootlegs with a ring of contrasting paint or crayon; and
 - (d) subject to clause 6.43(1)(b), inserted non-sparking lifter sticks or plugs into the lifters or remnants of lifters.
- 6.40(2)** Clause (1)(b) does not apply to a gypsum mine or a mine containing soluble minerals and other areas where water cannot be used.
- 6.40(3)** The worker making the examination under subsection (1) must mark each mishole with a single capital "M" in a conspicuous paint or crayon.

Abandonment of headings

- 6.41(1)** An employer must ensure that, before any heading or bench underground is abandoned or work in it is discontinued,
- (a) the ore or rock broken at the firing of the last blast is cleared from the face and floor;

- (b) the whole face and floor of the heading or bench is
 - (i) washed down, and
 - (ii) examined for misholes; and
- (c) bootlegs are marked as required by subclause 6.40(1)(c)(ii) and lifters are flagged as required by clause 6.40(1)(d).

6.41(2) Subclause (1)(b)(i) does not apply to a gypsum mine or a mine containing soluble minerals and other areas where water cannot be used.

6.41(3) For a gypsum mine or a mine containing soluble minerals where water cannot be used, the employer must

- (a) develop and implement safe work procedures for cleaning the face before a heading or bench is abandoned or work in it is discontinued;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Chip samples

6.42(1) A worker must not cut chip samples from a face

- (a) until the area is
 - (i) washed with water,
 - (ii) scaled and conditioned, and
 - (iii) carefully examined for misholes; or
- (b) within 1.5 m of any hole containing an explosive.

6.42(2) Subclause (1)(a)(i) does not apply to a gypsum mine or a mine containing soluble minerals, and other areas where water cannot be used.

6.42(3) For a gypsum mine or a mine containing soluble minerals where water cannot be used, the employer must

- (a) develop and implement safe work procedures for cleaning the area before cutting a chip sample;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Drilling near misholes and bootlegs

6.43(1) A worker must not drill a hole or cause or permit a hole to be drilled underground at a mine

- (a) on a face containing a mishole;
- (b) within 1.5 m of a muckpile which might conceal a mishole;
- (c) on a face adjacent to a face containing a mishole where any part of the hole to be drilled could come within 1.5 m of the mishole;
- (d) less than 160 mm from a bootleg, as measured from the outside perimeter of the drill hole socket; or
- (e) less than 300 mm from the outside perimeter of the old burn or shatter cut.

6.43(2) Subsection (1) does not apply in the case of a hole drilled for the purpose of providing an additional hole for the blasting of a misfire, as provided for under subsection 6.21(1), if the hole is drilled under the direct supervision of a supervisor and that supervisor determines the location, the angle of the hole and the depth to which it is drilled.

6.43(3) Despite subclause (1)(d), a hole may be drilled within 160 mm of the trace of a hole that has been blasted with a water soluble explosive if the trace is first washed to ensure that no residual explosive remains.

6.43(4) If it is not possible to make a thorough examination for a potential mishole, or where a hole that has been blasted has to be redrilled, the employer must

- (a) ensure that any further drilling at the location is remotely controlled;
- (b) develop and implement safe work procedures for the remotely controlled drilling;
- (c) train workers on the safe work procedures; and
- (d) ensure that workers comply with the safe work procedures.

Blasts initiated by electricity

6.44 The employer must ensure that all blasts are initiated by electric current when blasting in

- (a) a shaft or ancillary working, after the first 3 m of advance have been made in the shaft, and until such time as the permanent timbers and ladders have reached the level on which blasting is being done; and

- (b) a raise inclined at over 50° from the horizontal,
 - (i) after the first 8 m of advance, or
 - (ii) when free escape is not readily available.

EXPLOSIVES ON SURFACE

Use of explosives on surface

6.45 An employer must not manufacture or mix or permit the manufacturing or mixing of a explosive or any material for use as an explosive on surface at a mine except when licenced to do so under the *Explosives Act* (Canada).

Storage and licencing of explosives

6.46(1) An employer must not store or permit to be stored explosives on surface at a mine except in a magazine licenced under this section.

6.46(2) A magazine on the surface must be located so that

- (a) its location meets the minimum separation distances set out in the Table in Schedule A; and
- (b) if there is an inhabited building in the vicinity of the magazine,
 - (i) in the case of a building inhabited by 20 or fewer people at any one time, there is a minimum separation distance of 270 m between the building and the magazine, and
 - (ii) in the case of a building inhabited by more than 20 people at any one time, there is a minimum separation distance of 400 m between the building and the magazine.

6.46(3) A magazine on the surface must be constructed in accordance with the requirements set out in the *Storage Standards for Industrial Explosives*, published by the Explosives Regulatory Division of the Department of Natural Resources (Canada).

6.46(4) Before applying for a licence in respect of a magazine on the surface, the employer must consult with the committee regarding

- (a) how the proposed magazine meets
 - (i) the locations requirements prescribed in subsection (2), and
 - (ii) the construction requirements prescribed in subsection (3); and
- (b) the content of the plans referred to in clauses (5)(b) and (c).

- 6.46(5)** An application for a licence for a magazine on the surface must be made in writing to a mines inspector and must contain
- (a) a statement of the quantity, class and division of the explosives to be stored in the proposed magazine;
 - (b) a plan showing the proposed location of the magazine in relation to the property boundary, roads, mine opening and all buildings and engineering works, including other magazines, located within the distance prescribed in subsection (2) for the quantity of explosives to be stored in the proposed magazine;
 - (c) a plan showing
 - (i) the proposed construction specifications of the magazine, including locking devices, electrical equipment, hoisting equipment, ventilating provisions and heating devices, and
 - (ii) the details as to how the proposed construction specifications meet the requirements of subsection (3); and
 - (d) a statement that the employer has consulted with the committee regarding the plans referred to in clauses (b) and (c).

Licences for magazines on the surface

6.47(1) A mines inspector may issue a licence for a magazine on surface if satisfied that the magazine has been constructed in accordance with the application plans provided under subsection 6.46(5).

6.47(2) A licence for a magazine on the surface must specify

- (a) the maximum quantity of explosives to be stored in the magazine;
- (b) the location of the magazine; and
- (c) the expiry date of the licence.

Additional requirements – surface magazines

6.48(1) The employer must ensure that each magazine on the surface at a mine is

- (a) protected by a clear fire break that is devoid of vegetation in all directions for the greater of 8 m or 1.5 times the height of the nearest tree;
- (b) provided with electrical bonding and grounding on all metal doors, sheathing, and roofing, if the magazine is supplied with electrical power;
- (c) conspicuously marked by signs posted on all approaches, at a minimum distance of 8 m from the magazine, that

- (i) bear the words "Danger Explosives, No Smoking",
- (ii) are of a size visible at a distance of 8 m, and
- (iii) are out of the line of sight of the magazine;
- (d) painted a contrasting colour to the surrounding background, other than black or any dark colour; and
- (e) locked when the person in charge is not present.

6.48(2) An employer must ensure that each magazine on the surface is provided with a record book that is

- (a) used to record the amount of explosives
 - (i) added to the magazine,
 - (ii) removed from the magazine, and
 - (iii) returned to the magazine; and
- (b) signed and dated by the worker who adds, removes or returns explosives to the magazine.

6.48(3) The employer must develop and implement safe work procedures that require, on the approach of a lightning storm, each magazine on the surface to be closed and every person in or about the magazine withdraws from the area for the duration of the storm.

6.48(4) The employer must train workers in the safe work procedures developed under subsection (3) and must ensure that workers comply with the safe work procedures.

Storage of detonators

6.49 An employer must not store detonators or allow detonators to be stored in the same magazine on the surface as other explosives.

Transportation of explosives

6.50 If explosives are to be transported on surface at a mine, the employer must ensure that the *Explosives Act* (Canada) and Part VI (Transportation by Road and Private Railway) of the *Explosives Regulation* C.R.C., c. 599 are complied with.

Drilling near misholes and bootlegs

6.51(1) A worker must not drill a hole or cause or permit a hole to be drilled at an open pit or quarry at a location less than

- (a) 4.5 m from a hole containing explosives or from a mishole; or
- (b) 300 mm from a bootleg.

- 6.51(2)** Subsection (1) does not apply in the case of a hole drilled for the purpose of providing an additional hole for the blasting of a misfire in accordance with subsection 6.21(1), if the hole is drilled under the direct supervision of a supervisor and that supervisor determines the location, the angle of the hole and the depth to which it is drilled.
- 6.51(3)** Despite clause (1)(b), a hole may be drilled within 300 mm of the trace of a hole that has been blasted with a water soluble explosive when the trace is washed to ensure that no residual explosive remains.
- 6.51(4)** If it is not possible to make a thorough examination for a potential mishole, or where a hole that has been blasted has to be redrilled, the employer must
- (a) ensure that any further drilling at the location is remotely controlled;
 - (b) develop and implement safe work procedures for the remotely controlled drilling;
 - (c) train workers on the safe work procedures; and
 - (d) ensure that workers comply with the safe work procedures.

Posting of signs

- 6.52** The employer must post a sign at the entry to an open pit or quarry showing the scheduled time of a primary blast.

**SCHEDULE A
(Section 6.46)**

TABLE

Distance in Metres						
Quantity NEQ (kg)	D2	D4	D5	D6	D7	D8
50	10	30	180	45	270	400
100	12	38	180	53	270	400
200	15	47	180	65	270	400
250	16	51	180	70	270	400
300	17	54	180	75	270	400
400	18	59	180	83	270	400
500	20	64	180	90	270	400
600	21	68	180	95	270	400
800	23	75	180	105	270	415
1000	24	80	180	113	270	445
2000	31	105	180	140	270	560
4000	39	130	235	178	350	710
5000	42	140	255	190	380	760
6000	44	150	270	203	405	810
7000	46	155	285	213	425	850
10000	52	175	320	240	480	960
20000	66	220	405	305	610	1220
25000	71	235	435	325	650	1300
30000	75	250	460	345	690	1380
40000	83	275	510	380	760	1520
50000	89	295	550	410	820	1640
100000	115	375	690	520	1040	2080

1 In this Schedule:

«**NEQ**» means net explosive quantity.

“**D2**” is the minimum separation distance required between two magazines if there is an effective barricade between them.

“**D4**” is the minimum separation distance required between a magazine and a very lightly travelled road – being a road that is travelled by 20 to 500 vehicles per day and that is not a provincially numbered highway.

“**D5**” is the minimum separation distance required between a magazine and a road or highway that is travelled by 500 to 5,000 vehicles per day.

“**D6**” is the minimum separation distance required between two magazines if there is no effective barricade between them.

“**D7**” is the minimum separation distance required between a magazine and a road or highway that is travelled by more than 5,000 vehicles per day.

“**D8**” is the minimum separation distance required between a magazine and a building of vulnerable construction, including a highrise, a school, a hospital or other similar building.

2 In respect of detonators stored in a magazine, for the purpose of determining separation distances under the table, 1,000 No. 12 detonators may be considered equal to 1 kg of explosive. For detonators of greater strength the equivalent number of detonators considered to equal 1 kg of explosive is less, as determined in proportion to their greater strength.

PART 7 REMOTE CONTROLLED EQUIPMENT

Definitions

7.1 The following definitions apply in this Part.

“remote controlled equipment” means equipment that can be operated or moved by use of a remote control system.
(« équipement télécommandé »)

“remote control system” means a system that allows an operator to control remote controlled equipment from a distance using electrical impulses or radio signals. (« télécommande »)

Safe work procedures

7.2(1) If remote controlled equipment is to be used at a mine, the employer must

- (a) develop and implement safe work procedures for the operation and use of remote controlled equipment;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

7.2(2) The safe work procedures must identify the conditions under which remote controlled equipment may be used.

7.2(3) The employer must provide the safe work procedures to a mines inspector.

Requirements for remote controlled equipment

7.3 When remote controlled equipment is used at a mine site, the employer must ensure that

- (a) the entrance to the site where the equipment is being used is clearly identified by means of a sign that indicates remote controlled equipment is being used at the site;
- (b) the equipment is used within the operator’s sight unless the equipment is under camera surveillance and the area is barricaded to prevent inadvertent access;
- (c) the remotely controlled equipment has a selector device that enables the operator to control it either manually or by remote; and

- (d) for each piece of remotely controlled equipment,
 - (i) the remote control system used for it cannot be used to operate any other piece of equipment, and
 - (ii) the equipment cannot be affected by other remote control systems or radio communications at the site.

Operator of remote control system

7.4 A remote control system used to operate equipment must be operated only by a competent worker who is the worker in charge of that equipment.

Log for remote control system

7.5 When a remote control system is used to operate or move equipment, the employer must ensure that a log book is maintained setting out the make, model, serial number, identification code, frequency and maintenance record of the system, and any other particulars relating to the system.

Requirements for remote control systems

- 7.6** The employer must ensure that a remote control system
- (a) is equipped with a means or device that, when the remote controlled equipment it controls reaches an incline or decline of 45° from the horizontal, automatically stops the engine on the equipment from operating and applies the brakes on the equipment;
 - (b) is equipped with an emergency switch that, if pressed or switched, instantly stops the equipment's engine and applies the equipment's brakes;
 - (c) is disconnected and locked by a safety device when not in use; and
 - (d) is not capable of firing a detonator.

Emergency switch

7.7 The employer must ensure that the emergency switch referred to in clause 7.6(b) is marked in red and operational when pressed or switched.

Altering frequencies

- 7.8(1)** A person must not alter the frequency for a remote control system unless
- (a) the employer authorizes the person to do so;
 - (b) the person doing the alteration is trained in the safe work procedures developed and implemented by the employer for the operation and use of remotely controlled equipment; and
 - (c) the alteration is done in accordance with the safe work procedures.
- 7.8(2)** The employer must ensure that an alteration of a frequency of a remote control system does not interfere with any other remote controlled equipment at the mine.

Worker not to be tethered

- 7.9(1)** An employer must not permit a worker to be tethered, strapped or physically bound to remote controlled equipment.
- 7.9(2)** Despite subsection (1), a worker may be tethered to remote controlled equipment for the purpose of fall protection.

PART 8 PROTECTION NEAR MACHINERY

Application

- 8.1(1)** Sections 16.14 to 16.20 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, do not apply to a mine.
- 8.1(2)** *CAN/CSA-Z460, Control of Hazardous Energy - Lockout and Other Methods*, applies at a mine.

Entry to certain places prohibited

- 8.2** A person who is not authorized by the employer to do so must not enter any place in or about a mine where a hazard or potential hazard exists in respect of machinery or electrical equipment.

Protection near machinery

- 8.3** If a worker is required to work on or near machinery, the employer must provide lighting, safe footing and adequate space to reduce hazards and potential hazards to a minimum.

Grinding machines

- 8.4(1)** The employer must ensure that all stationary power driven grinding machines are equipped with
- (a) a wheel designed for the speed of the machine;
 - (b) a workrest mounted above the centre line of the wheel not more than 3 mm from the wheel;
 - (c) a hooded guard that can withstand the shock of a bursting wheel and which encloses the wheel except at the area of the workrest; and
 - (d) a transparent protective shield that protects the worker operating the grinding machine.
- 8.4(2)** A worker must not operate and an employer must not permit a worker to operate a grinding machine unless the worker wears a face shield and safety goggles or safety glasses.

Counterweights

- 8.5** The employer must ensure that each counterweight is so situated or guarded as to prevent injury to a worker during normal operation and during a malfunction of the counterweight system.

Fuelling of gas engine

- 8.6** A worker must not refuel gasoline-powered equipment while the engine is operating, except if the fuel tank is located so as to preclude the ignition of any fuel.

Exhaust from internal combustion engine

- 8.7** If an internal combustion engine is installed inside a building, the employer must ensure that the exhaust gases from the engine are arranged so as to prevent the fumes from
- (a) re-entering the building;
 - (b) entering the intake of an air compressor; or
 - (c) contaminating the atmosphere of an adjacent building or the mine working.

Frogs and guard rails

- 8.8(1)** The employer must ensure that each frog and guard rail in a haulage track, above or underground, is provided with a guard block or is constructed in such a manner that there is no danger of a person's foot being caught in the frog or guard rail.

- 8.8(2)** The following definitions apply in subsection (1).

“frog” means a track design that allows trains to transfer from one set of haulage tracks to another. (« pointes de cœur »)

“guard rail” means an extra length of rail installed to control the train rolling stock from riding up on the rail and derailling at transition points and on some curves. (« contre-rails »)

Railway track approaches

- 8.9** The employer must ensure that an effective guard and signage are provided at places where pedestrians or powered mobile equipment approach railway tracks, if the view of the tracks is obstructed in any direction.

Bunker, hopper, storage bin, stockpile

- 8.10(1)** A worker must not enter and an employer must not permit a worker to enter a bunker, hopper or storage bin while material is stored in it or work on a stockpile where the material can move by gravity unless
- (a) suitable precautions are taken against the danger of the material caving or sliding; and
 - (b) the worker wears a fall arrest system that complies with section 14.13 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006.

- 8.10(2)** A worker must not enter and an employer must not permit a worker to enter a bunker, hopper or storage bin while material is stored in it unless
- (a) CAN/CSA-Z460, *Control of Hazardous Energy - Lockout and Other Methods* is complied with in respect of both the feed to and the discharge of material from the bunker, hopper or bin and warning signs and other effective protection is provided against the dumping of material into it; and
 - (b) the requirements of Part 15 of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, are followed if the employer, in consultation with the committee, has determined that the bunker, hopper or storage bin is a confined space, as defined in section 1.1 of *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006,

Guarding of hazards and potential hazards

- 8.11** The employer must ensure that all openings, pits, sumps, vessels or elevated platforms that constitute a hazard or potential hazard are fenced or adequately guarded to prevent inadvertent access.

PART 9 CONVEYORS

Fire protection

- 9.1(1)** The employer must ensure that a conveyor belt installed underground or in any other place at a mine where, because of limited access, a fire could endanger the lives of workers
- (a) is equipped with a device that guards against excessive slip between the belt and driving pulley;
 - (b) meets the requirements of CAN/CSA-M422-M87, *Fire-Performance and Antistatic Requirements for Conveyor Belting, types A1, A2, or B1-a*; and
 - (c) is provided with an automatic fire extinguishing system that protects the entire length of the belt.
- 9.1(2)** A conveyor belt installed before the coming into force of this regulation must comply with clause (1)(a) and either clause (1)(b) or (1)(c).

Riding on conveyor prohibited

- 9.2** A worker must not ride and an employer must not permit a worker to ride on a conveyor.

Cleaning and servicing moving conveyor

- 9.3(1)** Subject to subsection (2), a worker must not manually clean, and an employer must not require or permit a worker to manually clean, a conveyor or its rollers or pulleys while the belt is in motion.
- 9.3(2)** A worker may service or manually clean spillage on or around a moving conveyor if
- (a) the conveyor is constructed so that the work can be done safely and without removing any protective fence or guard; and
 - (b) the employer
 - (i) has developed and implemented safe work procedures,
 - (ii) has trained workers in the safe work procedures, and
 - (iii) ensures that workers comply with the safe work procedures.

Emergency stop and warning device

- 9.4(1)** The employer must ensure that the following are provided and maintained on each conveyor:
- (a) guards that extend at least 1 m from the pinch point at all head, tail, drive and tension pulleys;
 - (b) an emergency stopping system that
 - (i) is readily accessible to workers working at the conveyor, unless worker access to the conveyor is prevented by guarding or other means, and
 - (ii) is designed and installed so that manual resetting is required before the conveyor can be restarted after an emergency stop;
 - (c) a means to warn persons along its full length before the conveyor is started whenever the full length of the conveyor is not within sight of the starting control.
- 9.4(2)** When the emergency stopping system referred to in clause (1)(b) uses emergency stop pull-cords, the employer must ensure that
- (a) the pull-cord reaches from the head pulley to the tail pulley and is located to maximize its effective use: and
 - (b) the emergency stopping system is activated when the pull-cord is pulled in any direction, the pull-cord breaks or a single spring in the pull-cord assembly fails.
- 9.4(3)** Subsection (2) applies to a conveyor installed or upgraded on or after February 1, 2007.

Restarting conveyor after emergency stop

- 9.5** An employer must ensure that, after a conveyor is stopped by use of its emergency stopping system, it is not restarted until it has been inspected and the employer has determined, on the basis of the inspection, that it can be restarted and operated safely.

PART 10
PROTECTION FROM MOLTEN MATERIAL

Definition of “deleterious substance”

10.1 In this Part, “deleterious substance” includes oil and any other substance that, if it came in contact with molten material, might create a hazard to a worker.

Moulds, ladles and pots

10.2(1) The employer must ensure that each mould, ladle or slag pot used for molten material is visually examined before it is used on an operating shift in order to determine that it is free from the following:

- (a) water or any other form of moisture, such as ice or snow;
- (b) deleterious substances;
- (c) abnormal scale;
- (d) excessive wear;
- (e) foreign material.

10.2(2) The employer must ensure that a mould, ladle or slag pot used for molten material and found to be defective is

- (a) marked with the defect identified; and
- (b) removed from service until it is
 - (i) repaired, and
 - (ii) certified by a qualified worker and by the supervisor to be safe for use.

Filling ladles and pots

10.3(1) When molten material is transported by mechanical means in a ladle or slag pot, a worker must not fill the ladle or slag pot above a point 100 mm below its lip.

10.3(2) If a ladle or slag pot is accidentally filled with molten material above the point specified in subsection (1), a person must not move it until

- (a) the supervisor has been informed; and
- (b) the supervisor or a person designated by the supervisor has
 - (i) warned all persons in the vicinity of the condition of the ladle or slag pot,
 - (ii) cleared all personnel away from the travel path, and
 - (iii) directed the movement of the ladle or slag pot.

Using water or deleterious substances

- 10.4(1)** A production plant containing molten material must be designed to prevent, as far as reasonably practicable, the direct contact of water or a deleterious substance with molten material, hot refractories, furnaces or ancillary equipment.
- 10.4(2)** If water or a deleterious substance is to be used at a mine in a process where contact with molten material may create a hazard to a worker, the employer must
- (a) develop safe work procedures in consultation with a professional engineer who certifies that the use of the water or deleterious substance is safe;
 - (b) provide a copy of the safe work procedures to a mines inspector;
 - (c) implement the safe work procedures in accordance with the specifications of the professional engineer;
 - (d) train workers in the safe work procedures; and
 - (e) ensure that workers comply with the safe work procedures.

Inspection for water and deleterious substances

- 10.5(1)** The employer must ensure that safe work procedures are developed and implemented to inspect for accumulations of water or deleterious substances in the following places on each operating shift:
- (a) all containment areas around or beneath holding vessels for molten material;
 - (b) all trenches, utility tunnels or other excavations below ground level where a spill of molten material could reach;
 - (c) any other location where a spill of molten material could occur.
- 10.5(2)** The employer must ensure that the results of the inspections are recorded in a log book.

Water leaks or accumulations

- 10.6** When water is used on or near a holding vessel containing molten material, the employer must
- (a) develop and implement safe work procedures to
 - (i) prevent leaks as far as reasonably practicable,
 - (ii) stop any discovered leaks,
 - (iii) remove any accumulation of water, and
 - (iv) dry the affected area;

- (b) train workers in the safe work procedures; and
- (c) ensure the workers comply with the safe work procedures.

Water for washing down or cooling

10.7 The employer must not allow the direct application of water to wash down or cool vessels used for holding molten material.

Design of vessels containing molten material

10.8(1) A vessel containing molten material must be designed to prevent uncontrolled loss or spillage of molten material.

10.8(2) Following the recommendations of the manufacturer of the vessel or a professional engineer, the employer must develop and implement safe work procedures for the following:

- (a) normal operating practice and control of the vessel;
- (b) monitoring the integrity of the vessel;
- (c) repairing and maintaining the vessel;
- (d) shutting down the vessel in an emergency.

10.8(3) The employer must provide spill containment areas beneath or around a vessel containing molten material. These areas must be

- (a) capable of holding or containing 110% of the vessel's capacity;
- (b) constructed of the appropriate refractory materials; and
- (c) designed to prevent contact between the molten material and water or deleterious substances.

Proximity of personnel

10.9(1) A mine containing a vessel with molten material must be designed so that non-essential personnel are located out of range of potential molten material spills and explosions.

10.9(2) The employer must ensure that areas where workers congregate, such as offices, rest areas, lunch rooms and control rooms, which are in close proximity to a vessel containing molten material

- (a) are designed to protect the workers if there is
 - (i) an uncontrolled loss or spillage of molten material, or
 - (ii) an explosion in the vessel; and
- (b) have emergency exits away from the hazard.

Surveillance cameras

10.10 At a mine containing a vessel with molten material, the employer must, in consultation with the committee, install a surveillance camera in any hazard area that is out of direct view of the vessel operator.

Overhead crane cabs

10.11(1) The employer must ensure that an overhead crane cab in the vicinity of a vessel containing molten material is designed to

- (a) protect the crane operator from the impact and effect of a molten material explosion; and
- (b) provide adequate visibility from the crane cab, adequate ergonomic controls and seating and adequate ventilation.

10.11(2) The employer must

- (a) develop and implement safe work procedures for the emergency extraction of the operator of an overhead crane cab in the vicinity of a vessel containing molten material;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

PART 11 USE OF ELECTRICITY

Definition of “electrical standards”

11.1 In this Part, “electrical standards” means CSA Standard C22.1 – *Canadian Electrical Code*, and CSA Standard M421 – *Use of Electricity in Mines*.

Workplace Safety and Health Regulation applies re electricity

11.2 Part 38 (Electrical Safety) of the *Workplace Safety and Health Regulation*, Manitoba Regulation 217/2006, applies to a mine, except that

- (a) sections 38.2, 38.5, 38.6, 38.13 and 38.14 do not apply; and
- (b) section 38.10 and 38.11 apply only during construction above ground at a mine.

CSA Standards C22.1 and M421 apply

11.3(1) Subject to this section, the employer must ensure that each electric installation at the workplace is installed and maintained in accordance with the electrical standards.

11.3(2) The employer must ensure that the electrical work in the workplace complies with

- (a) *The Electricians’ Licence Act*; and
- (b) where applicable, the by-laws of the municipality.

11.3(3) A reference in the CSA Standard C22.1, *Canadian Electrical Code* to an “inspection department” is deemed to be a reference to the Mine Safety Branch of the Department of Labour and Immigration.

Plans and specifications

11.4(1) The employer must provide plans and specifications to a mines inspector for

- (a) electrical installations when
 - (i) the ampacity of the service entrance equipment exceeds 200 amperes single phase or the supply service is multi-phase,
 - (ii) the installation operates at voltages in excess of 750 volts, or
 - (iii) the installation, alteration or repair has the capacity to exceed 200KVA;
- (b) installations subject to sections 18, 20, 22, 24 or 36 of CSA Standard C22.1 – *Canadian Electrical Code*; and
- (c) any other installations required by a mines inspector.

- 11.4(2)** The employer must ensure that the plans and specifications required by subsection (1) are prepared and certified by a professional engineer.
- 11.4(3)** The employer must ensure that a professional engineer engaged for an installation referenced in subsection (1) provides a letter to a mines inspector indicating that the construction conforms to the plans and specifications provided to the mines inspector.
- 11.4(4)** When an installation is completed, the employer must ensure that a professional engineer provides a certificate to a mines inspector stating: "I hereby certify that I have inspected the installation for compliance with the plans and specifications provided to the mines inspector and find the installation complies with the requirements of the electrical standards."

Special acceptance inspection

- 11.5** A mines inspector may conduct a special acceptance inspection of electrical equipment that is not approved by or does not bear the approval mark of an accredited certification organization.

Equivalent standard

- 11.6** A mines inspector may accept an equivalent standard if, in his or her opinion, the standard provides a level of safety equivalent to or better than the electrical standards.

Safe work procedures

- 11.7** The employer must
- develop and implement safe work procedures for electrical work;
 - train workers who do electrical work in the safe work procedures; and
 - ensure that workers comply with the safe work procedures.

Electrical equipment must be de-energized

- 11.8(1)** Subject to subsection (2), the employer must ensure that an electrical worker – being a person authorized to do electrical work or restricted electrical work under *The Electricians' Licence Act* – doing electrical work
- de-energizes and locks-out electrical equipment on which work is to be done in a manner that meets the requirements of *CAN/CSA-Z460, Control of Hazardous Energy – Lockout and Other Methods*;
 - removes any potential stored power; and
 - does not re-energize the equipment until the work has been completed and all persons in the immediate vicinity are in a safe location.

- 11.8(2)** If it is not reasonably practicable to de-energize electrical equipment before electrical work is done, the employer must ensure that no electrical worker begins work on energized electrical equipment until
- (a) the employer, in consultation with the worker, has
 - (i) assessed the conditions or circumstances under which the electrical worker is required to work, and
 - (ii) developed safe work procedures that include the use of safety equipment appropriate for the task in a manner that meets the requirements of CSA Standard Z-462 – *Workplace Electrical Safety*;
 - (b) the employer and the electrical worker have agreed to the safe work procedures developed under subclause (a)(ii);
 - (c) the electrical worker has been trained in the safe work procedures;
 - (d) the employer has designated a worker who is trained in emergency response procedures as a standby worker at the location where the electrical work is to be done; and
 - (e) the electrical worker and the designated worker wear all personal protective equipment appropriate for the work to be done.
- 11.8(3)** The employer must ensure that the standby worker designated under clause (2)(d) remains present at the location where the electrical work is to be done at all times while an electrical worker is working on energized electrical equipment.
- 11.8(4)** Subsection (1) does not apply to Manitoba Hydro or an electrical worker employed by Manitoba Hydro when Manitoba Hydro complies with CAN/CSA Z460, *Control of Hazardous Energy – Lockout and Other Methods*.

Equipment location and protection

- 11.9** The employer and an owner must ensure that exposed, energized electrical equipment is suitably located and guarded so that it is not contacted by a worker.

Switch not to be locked in closed position

- 11.10** The employer must ensure that no worker locks or otherwise fixes an electrical switch in the closed or energized position unless the design specifications of the electrical system require it to remain locked in the closed position.

Warning and first aid signs to be posted

- 11.11** The employer must ensure that signs are posted at the workplace as follows:
- (a) at the entrance to every substation, equipment room, transformer vault or other enclosed area in which electrical equipment is operated, a sign
 - (i) prohibiting the entry of unauthorized persons, and
 - (ii) warning of danger and indicating the highest voltage in the area;
 - (b) in every electrical workshop, transformer vault, electrical substation and any other area required by the mines inspector, a sign containing
 - (i) directions for giving first aid treatment to a person suffering electrical shock, and
 - (ii) if an electrician is not continuously on duty at the mine, the telephone numbers of the supervisor and the person in charge of electrical equipment.

Armoured cable to be grounded

- 11.12** When an electrical circuit used for blasting consists of armoured cable, the employer must ensure that the armour and any unused conductor of the cable are grounded.

Ground rods

- 11.13** The employer must ensure that any ground rods used are copper clad and not less than 15.8 mm in diameter.

Bonding of cable trays

- 11.14** The employer must ensure that any metal cable tray is adequately bonded at intervals not exceeding 15 m, and that the size of the bonding conductor is based on the size of the largest ungrounded conductor or equivalent for multiple conductors carried by the cable tray.

Sprinklered equipment

- 11.15** The employer must ensure that electrical service and distribution equipment with ventilation openings located in sprinklered buildings or spaces is protected by noncombustible hoods or shields.

Crane – provision of circuit breakers

- 11.16** In respect of a crane used at a mine, the employer must ensure that a circuit breaker or a switch capable of interrupting the circuit under a full load is provided
- (a) in the crane operator's cab; and
 - (b) at ground level.

PART 12 OPEN PITS AND QUARRIES

Application of this Part

12.1 This Part applies to open pits and quarries.

Protecting open pit and quarry workings

12.2(1) The employer must ensure that a surface mine working or open face is securely fenced or otherwise protected against inadvertent entry by persons when

- (a) the working constitutes a hazard by reason of its depth;
- (b) the approaches to and openings of the working are not readily visible; or
- (c) the hazard caused by the working is greater than the hazard caused by natural topographical features within 600 m of the working.

12.2(2) The employer must maintain a protective curb or ridge of material at an open pit or quarry along the outer edge of the following:

- (a) a ramp;
- (b) a roadway that is within 20 m of a hazardous slope in the open pit or quarry;
- (c) a bench, when mobile equipment other than drilling machines is operated within 8 m of the edge of the bench.

12.2(3) The height of a curb referred to in subsection (2) must be

- (a) the greater of
 - (i) 1 m, or
 - (ii) one-half the diameter of the largest wheel of the equipment in use; and
- (b) in the case of a curve, of sufficient height to stop runaway mobile equipment.

Open pit and quarry workings

12.3 In an open pit or quarry, the employer must ensure that

- (a) all earth, clay, sand or gravel, loose rock, trees and other vegetation is removed and the bedrock exposed within 2 m of the rim of the working;
- (b) the material beyond 2 m from the rim of the working is sloped to an angle that precludes subsidence into the working; and

- (c) all benches are less than 20 m in height.

Design of open pit and quarry workings

- 12.4** When three or more benches are to be mined in an open pit or quarry, the employer must
- (a) provide to a mines inspector a report on the design that has been certified by a professional engineer that includes
 - (i) the general layout,
 - (ii) bench heights and berm widths,
 - (iii) ramp design,
 - (iv) overall slopes,
 - (v) stability studies,
 - (vi) blasting procedures to be used,
 - (vii) provision for water removal,
 - (viii) scaling techniques,
 - (ix) additional wall support, and
 - (x) a wall monitoring program;
 - (b) review the open pit or quarry design with the committee before development begins; and
 - (c) operate the open pit or quarry in accordance with the design.

Examining the face

12.5(1) Before permitting a person to work near the face of an open pit or quarry, the employer must ensure that a supervisor examines the face for hazardous conditions

- (a) following a blast; and
- (b) at least daily.

12.5(2) The supervisor must ensure that corrective action is taken if hazardous conditions are encountered during an examination.

Fall protection

12.6 A worker must not work and the employer must not permit or require a worker to work on the wall of an open pit or quarry or within 3.5 m of the crest when there is danger of the worker falling more than 1.5 m, unless the worker

- (a) has adequate fall protection that meets the requirements prescribed in sections 14.2 to 14.23 of the *Workplace Safety and Health Regulation*; and

- (b) is not working alone.

Undercutting face

12.7 The employer and a worker must not require or permit a working face to be advanced by undercutting.

Working unconsolidated material

12.8(1) In workings of clay, sand, gravel or other type of unconsolidated material the employer must ensure that

- (a) a working face with a vertical height of more than 2 m is worked by mechanical means;
- (b) when mobile equipment is used in loading unconsolidated material, the working face has a vertical height no greater than can be reached by the equipment being used; and
- (c) when ripping is required to loosen frozen material, the equipment
 - (i) is operated perpendicularly to the working face, and
 - (ii) does not approach closer to the working face than a distance equal to the height of the face.

12.8(2) In subsection (1), “**working face**” means a place where unconsolidated material is loaded and the material is at an angle steeper than 45° from the horizontal.

Dumping from mobile equipment

12.9(1) When material is dumped from mobile equipment into a raise or over a bank or bench, the employer must

- (a) provide and maintain a bumper block or ridge of material that prevents the mobile equipment from sliding into the raise or over the bank or bench;
- (b) not require or permit material to be dumped at a location where the ground at the dumping place could fail to support the weight of loaded mobile equipment;
- (c) ensure that mobile equipment approaches the dump in a way that gives the operator an unobstructed view of the raise, bank or bench; and
- (d) ensure that every dump point has suitable and adequate illumination and signage.

12.9(2) The employer must

- (a) develop and implement safe work procedures that include the items referred to in subsection (1);

- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Haul roads

12.10(1) The employer or owner must ensure that all haul roads are designed, constructed and maintained to provide

- (a) at least 2.5 times the width of the widest mobile equipment on the road where dual lane traffic exists; and
- (b) at least two times the width of the widest mobile equipment on the road where single lane traffic exists.

12.10(2) The employer must

- (a) develop and implement safe work procedures for towing equipment on a haul road ramp;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

12.10(3) In respect of a haul road, if reasonably practicable, an employer must provide clearly marked emergency runaway lanes or retardation barriers in suitable locations that are capable of bringing runaway mobile equipment to a stop, where

- (a) a sharp bend in the haul road exists that creates a risk to the operator of mobile equipment and the grade of the haul road exceeds
 - (i) 6%, for articulated bottom-dump trucks, or
 - (ii) 8%, for non-articulated end-dump trucks; or
- (b) a mines inspector directs the employer or owner to do so.

12.10(4) The employer must

- (a) develop and implement safe work procedures for traffic control on a haul road;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Rotary drilling

12.11(1) The operator of a rotary drill must not remain on the deck while the drill is running if by so doing the operator is exposed to a hazard or possible hazard.

12.11(2) In the event of a power failure, the operator must ensure that all controls on a rotary drill are placed in the off or neutral position to avoid possible hazards caused by an inadvertent start-up.

Parking powered mobile equipment

12.12 An operator must not park powered mobile equipment and the employer must not permit the parking of powered mobile equipment where the operator is or could be endangered by an operating shovel, loader, production truck, bulldozer or other mobile equipment.

Loading trucks

12.13(1) The employer must

- (a) develop and implement safe work procedures for trucks being loaded by mobile equipment;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

12.13(2) The safe work procedures under subsection (1) must ensure that

- (a) the load does not pass over unprotected workers; and
- (b) no worker remains in the cab of a truck being loaded unless
 - (i) suitable protection is provided above and behind the truck cab, or
 - (ii) adequate spacing is provided between the truck cab and the truck box.

Electrical cable

12.14 When a worker must handle energized electrical cable that is energized in excess of 300 volts line to line or 150 volts to ground, the employer must establish safe work procedures for handling electrical cable that conform to section 11.9.

Unprotected electrical cable

12.15 A worker must not drive mobile equipment and the employer must not require or permit a worker to drive mobile equipment over an electrical cable or conductor without protection that meets the requirements of the CSA Standard C22.1 – *Canadian Electrical Code*, and CSA Standard M421 – *Use of Electricity in Mines*.

Lighting

12.16 Where a hazard would be caused by a lack of lighting, the employer must provide suitable lighting for all areas where

- (a) trucks are loaded or dumped; or
- (b) explosives are loaded in a blast hole between dusk and dawn.

Abandoning the heading

12.17 The employer must ensure that before a heading is abandoned or work in it is discontinued

- (a) the ore or rock broken is cleared from the face, floor and bench;
- (b) the face, floor and bench are examined for misholes or cut-off holes; and
- (c) bootlegs are marked.

PART 13
SAFETY PRECAUTIONS UNDERGROUND

Hazards to be identified

- 13.1** The employer at an underground mine must
- (a) identify and indicate on the relevant working plans any hazard or potential hazard due to
 - (i) any workings, active or inactive,
 - (ii) any rock or stratum containing or likely to contain water or other liquid or gas,
 - (iii) any material that is likely to flow, and
 - (iv) geological structures; and
 - (b) take any necessary measures to avoid a hazard or potential hazard referred to in clause (a).

Unventilated or unsafe mine area

- 13.2(1)** The employer must ensure that any section of a mine that is not ventilated or maintained in a safe condition is
- (a) effectively barricaded to prevent inadvertent entry; and
 - (b) posted with signs warning that entry is prohibited.
- 13.2(2)** Before any other person enters or is permitted to enter a section of a mine that is not ventilated or maintained in a safe condition the employer must ensure that the atmosphere is tested and conditions examined, as the case may be, by competent personnel who are using appropriate personal protective equipment.

Protection when using a material slide

- 13.3** When material is being loaded, unloaded or moved in a bucketway or material slide, the employer must
- (a) develop and implement safe work procedures to prevent injury from falling objects;
 - (b) train workers in the safe work procedures; and
 - (c) ensure that workers comply with the safe work procedures.

Precautions re chutes

13.4(1) When there are chutes for the control of ore, waste or other material, the employer must

- (a) ensure that the chutes are so constructed and their parts and controls so arranged that workers are safe from an anticipated surge or spillage of material;
- (b) develop and implement safe work procedures to be followed in the event of an unexpected surge or spillage;
- (c) train workers in the safe work procedures; and
- (d) ensure that workers comply with the safe work procedures.

13.4(2) When ore, waste, fill or other material is pulled from a chute or drawpoint and a hang-up above the chute or drawpoint may endanger a person, the employer must ensure that

- (a) every worker in the area is notified of the hazard;
- (b) the area that might be affected by the hang-up is protected by signs, barricades or guarding; and
- (c) the area is examined and made safe before the signs and barricades are removed.

Mucking with mobile equipment powered by a diesel engine

13.5 When mobile equipment that is powered by a diesel engine is used in underground mucking operations, the employer must protect the operator of the equipment from striking the walls by

- (a) locating the operator's position within the physical dimensions of the equipment;
- (b) guarding the operator's position; or
- (c) locating the operator in a position remote from movement of the mobile equipment.

Use of compressed air driven or railbound loaders

13.6 When compressed air driven mobile equipment or railbound loaders are used in underground mucking operations, the employer must provide and the operator must use

- (a) a stand for the operator that
 - (i) is securely attached to the machine, and
 - (ii) includes a protective structure to prevent the operator from being pinned against the wall; and
- (b) means by which the operator, in an emergency, can quickly bring the machine to a standstill.

Water accumulation in mine workings

- 13.7(1)** The employer must take precautions to prevent unsafe accumulations of water in raises, ore and waste passes, chutes and other mine workings used for the storage or transfer of ore, waste or fill.
- 13.7(2)** If for any reason a raise, ore or waste pass, chute or other mine working containing ore, waste or fill could contain an unsafe accumulation of water, a worker must not pull or be permitted by the employer to pull material from the place until the employer,
- (a) develops and implements a safe work procedure which allows pulling only from a safe location while under the direct supervision of a supervisor;
 - (b) trains workers in the safe work procedures; and
 - (c) ensures workers comply with the safe work procedures.

Access to hang ups

- 13.8** A worker must not enter or be permitted by the employer to enter a drawpoint, chute, transfer raise or other mine opening used for the passage of ore, rock or other material by gravity in which the material is hung up, unless
- (a) the employer has developed a safe work procedure for each hang-up in consultation with the committee and the worker;
 - (b) the hang-up is visible from the point of entry; and
 - (c) the work is performed under the direct supervision of a supervisor.

Second means of exit from workplace

- 13.9** Unless the travelway to a workplace is capable of being used at all times, the employer must provide and maintain a second means of exit.

Duty of employer re top of openings

- 13.10(1)** The employer must cause the top of every millhole, manway, raise or other opening to be
- (a) securely covered or adequately protected to prevent inadvertent access; and
 - (b) posted with appropriate one-sided signage.

- 13.10(2)** When powered mobile equipment is used at a mine to dump material over a bank or bench that exceeds 3 m in height or into an opening referred to in subsection (1), the employer must
- (a) develop and implement safe work procedures for
 - (i) installing bumper blocks, and
 - (ii) dumping material;
 - (b) train workers in those safe work procedures;
 - (c) ensure that workers comply with those safe work procedures;
 - (d) install a bumper block that is sufficient to prevent the equipment from going over the edge;
 - (e) conspicuously identify the location of the bumper block and opening;
 - (f) ensure the bumper block is solidly constructed, adequately anchored and not a muck berm; and
 - (g) ensure that the area is adequately lighted.
- 13.10(3)** The employer must ensure that no worker operating mechanical or powered mobile equipment dumps material from the equipment over a bank or bench or into an opening referred to in subsection (1) unless the employer and worker have inspected the area before initial use, and the employer has approved the floor at the dumping place as sufficient to support the weight of the equipment.
- 13.10(4)** Subsections (2) and (3) do not apply when powered mobile equipment is operated by remote control.

Plotting of drill holes

- 13.11(1)** The employer must mark all diamond drill holes, and other drill holes over 6 m in length, that may present a danger to workers if intersected, on all working plans.
- 13.11(2)** The employer must advise all workers involved of the possible intersection of a diamond drill hole or a drill hole noted in subsection (1) before the heading is within 5 m of the intersection.
- 13.11(3)** The employer must mark the collar and the points of intersection of the drill holes referred to in subsection (1)
- (a) at the time when drilling is discontinued or an intersection made; and
 - (b) with a single capital letter "H" in a conspicuous paint, measuring at least 300 mm in height and within at least 1200 mm of the collar or intersection.

Grouting of diamond drill holes

- 13.12** The employer must grout all diamond drill holes
- (a) drilled from the surface to a depth of at least 30 m below any elevation at which flows of water could occur, and such grouting must be done before the hole is abandoned or the casing is pulled; and
 - (b) drilled from underground which intersect a water source of potential danger to the mine workings and such grouting must extend at least 30 m from the water source.

Encountering a flow of gas underground

- 13.13(1)** If a worker encounters a flow of gas from the rock, during a drilling operation underground, the worker must immediately
- (a) evacuate the area and close it to all persons; and
 - (b) notify the worker's supervisor.
- 13.13(2)** Upon receiving notification under clause (1)(b), the supervisor must
- (a) examine the area referred to in subsection (1) and identify the gas; and
 - (b) notify the employer.
- 13.13(3)** On being notified by a supervisor of a worker having encountered a flow of gas from rock, the employer must
- (a) develop and implement safe work procedures outlining how work can be continued safely;
 - (b) train workers in the safe work procedures; and
 - (c) ensure that workers comply with the safe work procedures.

PART 14
GROUND CONTROL

Ground conditions

14.1 The employer must ensure that before work is begun in a workplace in an underground mine, the ground conditions of the workplace are examined for dangers and hazards and, if required, made safe.

Scaling procedures

14.2(1) The employer must

- (a) develop and implement safe work procedures for activities related to scaling;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

14.2(2) The safe work procedures must include a requirement that

- (a) the employer not permit any other work to be carried out that affects or could affect the safety of a worker carrying out a scaling procedure;
- (b) when a workplace, travelway or other area of a mine cannot be maintained in a safe condition by scaling, the employer must ensure that it is otherwise made safe; and
- (c) the employer provide an adequate supply of appropriately dressed scaling bars and other scaling equipment.

Ground support procedures

14.3 The employer must

- (a) develop and implement safe work procedures for activities relating to the installation of ground support;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Rockbolts

14.4(1) When the employer and the workers in the heading believe that rockbolts must be installed for ground control in order to advance, the rockbolts must be installed to within 1.0 m of the face.

- 14.4(2)** The employer must ensure that the worker
- (a) is under secured ground when drilling holes for rockbolts; and
 - (b) installs the bolts after each hole is drilled when using a hand-held machine for drilling the holes.
- 14.4(3)** In this section, “**rockbolt**” means a steel or fiberglass bolt inserted and anchored in rock to prevent caving in an underground mine.

PART 15
MOBILE EQUIPMENT UNDERGROUND

Internal combustion engines underground

15.1(1) The employer must not install or operate or permit the installation or operation of a non-diesel internal combustion engine underground.

15.1(2) The employer must not install or operate or permit to be installed or operated a diesel internal combustion engine underground unless

- (a) the diesel engine has been certified as being suitable for underground use by an approved testing laboratory, as listed in section 15.17, and the certificate specifies the amount of ventilation required; and
- (b) before taking the diesel engine underground for the first time, the employer provides the following information to a mines inspector and to the committee on a form approved by the director:
 - (i) particulars of the certification referred to in clause (a),
 - (ii) a plan showing the areas of the mine in which the diesel engine will be operated,
 - (iii) details of the ventilation system to be provided,
 - (iv) information on the braking systems,
 - (v) information on the fire protection systems,
 - (vi) information as to whether the mobile equipment has a falling object protection system, a roll over protection system or both.

15.1(3) Despite clause (2)(a), a diesel engine that has not been certified by an approved testing laboratory listed in section 15.17 may be used if

- (a) a ventilation flow of 5.5 m³ per minute for each kilowatt is provided;
- (b) the committee is notified; and
- (c) the information provided under clause (2)(b) includes
 - (i) details of the maximum fuel injection rate, kilowatt output and revolutions per minute, and
 - (ii) the tests of the undiluted exhaust conducted under clause (5)(c) are within ranges suitable for underground use.

- 15.1(4)** A diesel engine for which particulars, plans and details are provided as required by subsection (2) may be replaced with an identical engine if such a change is
- (a) recorded in the log book or recording system referred to in clause (5)(g); and
 - (b) reported to the mines inspector.
- 15.1(5)** When a diesel engine is operated underground the employer must
- (a) subject to clause (b), provide and maintain a quantity of ventilating air past the engine as specified in the certificate referred to in clause (2)(a);
 - (b) subject to subsection (12), if more than one engine is operating in the same ventilating circuit, for all the engines combined, provide the amount of ventilation that equals the cumulative quantity specified in each of the certificates referred to in clause (2)(a) or the ventilation flow specified in clause (3)(a);
 - (c) ensure that tests are made of the undiluted exhaust gases with respect to carbon monoxide, carbon dioxide, aldehydes, oxides of nitrogen and, when tests are conducted on surface, of respirable combustible particulates,
 - (i) before the engine is used underground,
 - (ii) following a major overhaul of the engine, and
 - (iii) not less than once in every 12-month period or more often when requested by the committee;
 - (d) ensure that tests are made of the atmosphere at the operator's position for carbon monoxide and oxides of nitrogen at least weekly or at the operator's request;
 - (e) ensure that the volume of air flowing in each workplace affected by the exhaust is measured at least bi-weekly or at the request of the operator or the committee;
 - (f) cause the immediate shutdown of operation of the engine when
 - (i) carbon monoxide in the undiluted exhaust exceeds 0.15%,
 - (ii) carbon monoxide exceeds 20 ppm in the general operating area,
 - (iii) any other exhaust contaminant at the operator's position exceeds the threshold limit values for the contaminant, or
 - (iv) the volume of ventilating air is less than, in respect of a single engine, what is certified under clause (2)(a) or specified under clause (3)(a) or, in respect of more than one engine, what is specified in clause (b); and

- (g) maintain a log book in which is recorded
 - (i) the results of tests and measurements required under clauses (c), (d), (e), and (f), and
 - (ii) reports of engine maintenance and repairs that may affect the engine exhaust.

15.1(6) The employer must

- (a) when diesel fuel is used in an internal combustion engine underground, ensure that the diesel fuel complies with the *Standard for Automotive Low Sulfur Diesel Fuel*, CAN/CGSB-3.519-93, Type A-LS, except that where the ambient temperature in the area where the diesel fuel is being used or stored exceeds 30EC, the employer must ensure that
 - (i) the flash point of the diesel fuel is at least 10EC higher than the ambient temperature, and
 - (ii) the diesel fuel complies with the *Standard for Mining Diesel Fuel*, CAN/CGSB-3.16-99, Special LS;; and
- (b) when biodiesel fuel is used in an internal combustion engine underground, ensure that, where the ambient temperature in the area where the biodiesel fuel is being used or stored exceeds 30°C, the flash point of the biodiesel fuel is at least 10°C higher than the ambient temperature.

15.1(7) Before changing the fuel in an internal combustion engine from biodiesel to diesel or from diesel to biodiesel, the employer must

- (a) conduct tests referred to in clause (5)(c); and
- (b) provide the test results to a mines inspector and the committee.

15.1(8) The employer must

- (a) develop and implement a written maintenance program for diesel engines used underground that is designed to minimize exhaust emissions by keeping the diesel engines in good operating condition;
- (b) ensure that all diesel engines are inspected and maintained by a qualified person for defects and unsafe conditions as often as is necessary to ensure that
 - (i) the diesel engines are in good operating condition, and
 - (ii) the diesel engine emissions do not exceed the emission limits set out in the maintenance program developed under clause (a); and

- (c) ensure that any inspection or maintenance activity carried out under clauses (a) and (b) is recorded in the log book referred to in clause (5)(g).

15.1(9) A worker must not

- (a) keep a diesel engine running underground for more than 10 minutes when not in use; or
- (b) leave a diesel powered locomotive unattended, unless
 - (i) the engine has been shut off, and
 - (ii) the brakes have been set or other means are used to secure the locomotive from moving.

15.1(10) The employer must maintain a database on all diesel equipment underground to be made available to the committee or mines inspector upon request.

15.1(11) The database must include

- (a) equipment type;
- (b) engine kW; and
- (c) ventilation required for the engine.

15.1(12) The requirements of clause (5)(b) may be phased in as follows:

- (a) during the first year after this section came into force, the minimum ventilation provided must equal the sum of
 - (i) 100% of the largest engine,
 - (ii) 75% for the second largest engine, and
 - (iii) 50% for all additional engines;
- (b) during the second year after this section came into force, the minimum ventilation provided must equal the sum of
 - (i) 100% of the largest engine,
 - (ii) 75% for the second largest engine, and
 - (iii) 65% for all additional engines;
- (c) during the third year after this section came into force, the minimum ventilation provided must equal the sum of
 - (i) 100% of the largest engine, and
 - (ii) 75% for all additional engines; and
- (d) during the fourth year after this section came into force and after, the minimum ventilation provided must comply with the requirements prescribed under clause (5)(b).

15.1(13) In this section, “**biodiesel**” has the same meaning as in *The Biofuels Act*.

Operation of powered mobile equipment

- 15.2** A worker operating powered mobile equipment underground must
- (a) drive the equipment at a reasonable and prudent speed having regard to the actual and potential hazards of the area and must not proceed if any person’s safety is endangered;
 - (b) trim and secure any load being transported
 - (i) to prevent spillage or damage, and
 - (ii) to increase the operator’s view;
 - (c) ensure that each passenger is seated before moving the equipment; and
 - (d) if the equipment is electrically powered, set the brakes, place the control lever in the neutral position and disconnect the source of power before leaving the equipment unattended.

Rail bound equipment

- 15.3(1)** Every employer must provide and maintain on each underground locomotive:
- (a) brakes that will stop and hold the locomotive and its train of cars under full load conditions on any grade on which they operate;
 - (b) when the locomotive is electrically powered, control levers that are attached so that they cannot be removed when the power is on;
 - (c) an enclosure that will protect the driver in the event of a collision or impact;
 - (d) when operated by remote control or by an automatic system, a means whereby, in the event of failure of a part of the control or system, the brakes will be applied immediately;
 - (e) a restraining device that prevents a failure of the drive shafts or couplings from causing damage to the control systems.
- 15.3(2)** A worker must not operate and the employer must not permit the operation of a train of cars without a taillight on the last car.
- 15.3(3)** When the motor crew includes a switchman, the employer in consultation with the committee may designate riding zones and must
- (a) develop and implement safe work procedures to ensure the safety of the operation;
 - (b) train workers in the safe work procedures; and

- (c) ensure that workers comply with the safe work procedures.
- 15.3(4)** The safe work procedures developed and implemented under subsection (3) must prohibit riding on a vehicle in a place from which a person could be dumped while being transported.
- 15.3(5)** When an automated or remotely controlled tramming or haulage system is to be installed the employer must
- (a) develop and implement safe work procedures;
 - (b) provide details of the system and the safe work procedures to a mines inspector before the system is installed or used;
 - (c) train workers in the safe work procedures; and
 - (d) ensure that workers comply with the safe work procedures.

Riding on powered mobile equipment

- 15.4(1)** Subject to subsection (2), a person must not ride and the employer must not permit a person to ride as a passenger on mobile equipment underground at a mine unless a proper seat is provided for the person.
- 15.4(2)** When a personnel carrier is used in an underground mine, the employer must provide and maintain
- (a) a rollover protective structure on the personnel carrier that
 - (i) if supplied by the manufacturer of the personnel carrier, meets the requirements of CSA Standard B352.0-95 (R2006), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines*; or
 - (ii) if not supplied by the manufacturer, is designed by a professional engineer and installed according to the instructions of a professional engineer; and
 - (b) seat belts for the driver of the personnel carrier and for any other person who is required or permitted to be in or on the carrier while it is in motion or, if wearing of seat belts is impracticable, shoulder belts, bars, gates, or other restraining devices or enclosures designed to prevent the driver and any other person from being thrown outside the rollover protective structure in the event of an upset.
- 15.4(3)** When a personnel carrier is used in an underground mine, the employer must
- (a) develop and implement a safe work procedure for the loading, unloading and transportation of persons;

- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

15.4(4) When a personnel carrier travels on rail in an underground mine, the employer must provide and maintain

- (a) an enclosure for the passenger compartment that prevents the passengers from colliding with a wall or other object; and
- (b) the locomotive at the front end of the train in the direction of travel.

15.4(5) A person must not climb on or off a powered mobile equipment while it is in motion.

15.4(6) A personnel carrier that was in use underground on the day that this section came into force may continue to be used, despite not complying with clause 15.4(2)(a), during the five years after the coming into force of this section.

Audible warning devices

15.5 A worker operating powered mobile equipment underground must sound the audible warning device as required by clause 4.27(2)(e)

- (a) when approaching a pedestrian;
- (b) when approaching manways unless alternative protection is provided;
- (c) at any time a person's safety may be endangered by the equipment's movement; and
- (d) if the equipment is a locomotive, before starting.

Wheel chocks

15.6(1) The employer must ensure that each piece of mobile equipment is equipped with a minimum of two wheel chocks that are used to block movement whenever the mobile equipment is

- (a) left unattended; or
- (b) being maintained or repaired.

15.6(2) An alternative means of blocking the movement of mobile equipment in the circumstances described in subsection (1) may be used if the alternative means is developed by the employer in consultation with the committee.

Small utility mobile equipment

- 15.7** The employer must ensure that small utility mobile equipment in use underground has a suitable warning light that is
- (a) flashing at all times; and
 - (b) connected electrically to the battery isolation switch.

Braking systems

- 15.8(1)** The employer must not permit the operation of and a worker must not operate mobile equipment underground unless
- (a) the braking systems on the mobile equipment have been certified for use underground by the manufacturer of the system or by a professional engineer;
 - (b) the braking systems are capable of stopping the mobile equipment under the operating conditions that the equipment is to be subjected to; and
 - (c) the details or specifications of the braking systems have been provided to a mines inspector and the committee.
- 15.8(2)** The employer must not permit the operation of and a worker must not operate mobile equipment underground that has had its braking system altered or modified unless
- (a) the alteration or modification has been certified by a professional engineer or the manufacturer of the system; and
 - (b) the details or specifications relating to the alteration or modification have been provided to a mines inspector and the committee.

Rollover protective structure

- 15.9(1)** If mobile equipment is equipped with a rollover protective structure required under clause 15.4(2)(a), the employer must ensure that
- (a) the following information is suitably marked on each rollover protective structure:
 - (i) the manufacturer's name and address,
 - (ii) the model and serial numbers,
 - (iii) the make and model of machine which the rollover protective structure is designed to fit; and
 - (b) any replacement, modification, addition or repair to a rollover protective structure is carried out by a competent worker in accordance with

- (i) a design of a professional engineer that complies with CSA Standard B352.0-95 (R2006) *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines*,
- (ii) the manufacturer's minimum specifications, and
- (iii) a safe work procedure developed and implemented by the employer.

15.9(2) The employer must

- (a) train workers in the safe work procedures referred to in subclause (1)(b)(iii); and
- (b) ensure that workers comply with the safe work procedures.

Canopy to protect operator

15.10(1) The employer must ensure that a canopy is installed on each piece of mobile equipment used underground in order to protect the operator and passengers from overhead projections and loose rock or ground.

15.10(2) A canopy must consist of overhead protective devices built to withstand a minimum of 11.5 kJ of energy when tested in accordance with the Society of Automotive Engineers' Standard J231 – *Minimum Performance Criteria for Falling Object Protective Structures (FOPS)*.

15.10(3) If in use underground on the day that this section comes into force, mobile equipment equipped with a canopy that does not comply with subsection (2) may continue to be used during the five years after the coming into force of this section.

Procedure for working from bucket of LHD vehicle

15.11 The employer must

- (a) develop and implement a safe work procedure to ensure the safety of workers working from the bucket of a load-haul-dump vehicle;
- (b) train workers in the safe work procedure; and
- (c) ensure that workers comply with the safe work procedure.

Clearances for rail haulage

15.12 On each level underground on which mechanical track haulage is employed, the employer must maintain

- (a) a clearance of at least 450 mm between the sides of the haulage way and the powered mobile equipment;

- (b) a clearance of 600 mm on one side of the powered mobile equipment; or
- (c) safety stations in the walls of the haulageway.

Clearances for mobile equipment

15.13 In underground haulageways where mobile equipment is used, the employer must maintain

- (a) a minimum total clearance of 1.5 m between the sides of the workplace and the mobile equipment;
- (b) a clearance of 300 mm above the mobile equipment with a covered cab;
- (c) a clearance of 1.2 m above the driver's seat on the mobile equipment without a covered cab; and
- (d) safety stations, at intervals not exceeding 30 m when the working is simultaneously used for pedestrian traffic.

Safety stations

15.14 A safety station referred to in clauses 15.12(c) and 15.13(d) must meet the following requirements:

- (a) be plainly marked;
- (b) be clean and free of obstructions;
- (c) be cut perpendicular to the haulageway;
- (d) be at least
 - (i) 1 m in depth, in addition to any existing clearance between the powered mobile equipment and the wall,
 - (ii) 2 m in height, and
 - (iii) 1.5 m in width; and
- (e) be capable of being used as a safety station at all times.

Operation of mobile equipment on ramps

15.15(1) The employer must provide mobile equipment to transport workers up and down a ramp when the ramp exceeds a vertical depth of 100 m, unless there is intermediate access to the ramp from a shaft at vertical intervals of less than 200 m.

Ramps

15.15(2) The employer must ensure that any ramp driven to accommodate traffic by mobile equipment is designed so that no runaway mobile equipment can run for more than 300 m.

Regulation of vehicle traffic

15.16 The employer must

- (a) develop and implement safe work procedures that
 - (i) regulate vehicular traffic, and
 - (ii) include provisions respecting personnel carriers, transportation of explosives, and emergency situations;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

Approved testing laboratories

15.17 The following testing laboratories are approved for the purpose of certifying diesel engines for use at an underground mine:

- (a) Canadian Explosives Atmospheres Laboratory,
Canada Centre for Mineral and Energy Technology (CANMET)
Natural resources Canada
580 Booth Street
Ottawa, Ontario, K1A 0E4
www.nrcan.gc.ca/minerals-metals/technology/3003
- (b) Mine Safety and Health Administration (MSHA)
United States Department of Labour
Approval and Certification Centre
R.R. 1, Box 201B
Industrial Park Road
Tridelfphia, WV, 26059
www.msha.gov/TECHSUPP/ACC/lists/lists.htm

PART 16 HANDLING WATER UNDERGROUND

Definitions

16.1 The following definitions apply in this Part.

“borehole” means a hole or passage made by a drill. (« trou de mine »)

“bulk fill” means a mass of hydraulic backfill placed in a pour or series of pours with no intervening mining cycle where the total height of fill so placed is greater than 6 m, but does not include cut and fill stopes. (« matériaux de remblayage en vrac »)

“bulkhead” means a structure built to impound water or hydraulic backfill in a drift, cross-cut or other mine opening, and constructed in a way that completely closes off the mine opening. (« cloison »)

“dam” means a structure built to impound water in a drift, cross-cut or other mine opening, and constructed in a way that permits an unobstructed overflow of the water. (« barrage »)

“hydraulic backfill” means material, including mill tailings, sand or gravel, and that may contain water, cement or both, that is transported underground and flushed into place by using water. (« matériaux de remblayage hydraulique »)

“paste fill” means a high density hydraulic backfill with 75% to 85% solids by weight. (« matériaux de remblayage en pâte »)

Removal of water

16.2(1) At an underground mine, the employer must provide and maintain suitable and efficient machinery and appliances for keeping the mine free from water that could endanger the workers.

16.2(2) The employer must ensure that an underground mine is kept free from water, the accumulation of which could endanger the lives of any worker in the mine or an adjoining mine.

16.2(3) The employer must ensure that each sump is identified with signage.

Boreholes in advance of working face

- 16.3** When a workplace in an underground mine approaches abandoned or other workings which cannot be inspected and in which there is or could be an accumulation of water, the employer must
- (a) ensure that boreholes are kept at least 6 m ahead of the working face; and
 - (b) take such additional measures as are considered necessary by the employer or a mines inspector to preclude a sudden breakthrough of water.

Location on mine plans

- 16.4(1)** The employer must ensure that the location of every underground dam and bulkhead is clearly shown on mine plans.
- 16.4(2)** An employer must not permit a dam or bulkhead underground to be constructed without first
- (a) providing written documentation, certified by a professional engineer, to a mines inspector, that includes
 - (i) structural design specifications,
 - (ii) design calculations, and
 - (iii) detailed drawings of the structure; and
 - (b) providing a copy of the documentation to the committee.
- 16.4(3)** The employer must ensure that a dam or bulkhead is built in accordance with the documentation provided under clause (2)(a).
- 16.4(4)** Subsection (2) does not apply
- (a) to a dam that is less than 900 mm in height that is used solely for diverting the ordinary level drainage or impounding less than 25 tonnes of water;
 - (b) to cut and fill stopes, where provision is made for the control and removal of water from the fill by such means as permeable fences, drainage towers, manways or decanting; and
 - (c) in an emergency that could jeopardize the safety or health of a worker or the safety of the mine;
- 16.4(5)** In an emergency referred to in clause (4)(c), the employer must, as soon as practicable after beginning construction of an emergency dam or bulkhead,
- (a) notify a mines inspector and the committee of the construction;

- (b) provide a mines inspector with written documentation, certified by a professional engineer, that includes
 - (i) structural design specifications,
 - (ii) design calculations, and
 - (iii) detailed drawings of the structure; and
- (c) ensure that the emergency dam or bulkhead is built in accordance with the design certified by a professional engineer.

Placement of fill in mine working

- 16.5(1)** The employer must not place or permit to be placed any hydraulic backfill in any stope or other area underground before
- (a) the proposed system for underground transfer, storage, placing, containment and water removal is certified by a professional engineer; and
 - (b) a plan of the system referred to in clause (a) is provided to a mines inspector and a copy is provided to the committee.
- 16.5(2)** When bulk fill is to be placed, the proposal referred to in clause (1) (a) must include safe work procedures for monitoring fill and water inflows, drainage, saturation calculations and hydrostatic pressure on confining bulkheads.
- 16.5(3)** When bulk fill is to be placed, the employer must ensure that
- (a) the proposed system referred to in clause (1)(a) is constructed, operated, monitored and maintained in accordance with the certified design;
 - (b) records are maintained of the quantity of fill placed, the quantity of water inflow and outflow and observations of hydrostatic pressures;
 - (c) safe work procedures are developed and implemented assigning responsibilities and action levels, where
 - (i) blasting is conducted in the immediate area,
 - (ii) saturation of the fill mass exceeds 90%, or
 - (iii) hydrostatic pressures reduce the effective factor of safety of bulkheads below 5.0;
 - (d) workers are trained in the safe work procedures; and
 - (e) workers comply with the safe work procedures.

- 16.5(4)** When paste fill is to be placed, the employer must
- (a) monitor the amount of water to ensure 75% to 85% solids by weight, and ensure that water is not allowed to accumulate and be impounded; and
 - (b) ensure that the proposed system referred to in clause (1)(a) includes a means for monitoring the paste fill flow to the stope or other underground mine area.

PART 17
VENTILATION OF WORKINGS UNDERGROUND

Ventilation of an underground mine

- 17.1** The employer must
- (a) provide a ventilation system that is suitable and adequate to protect workers in an underground mine against inhalation of a contaminant of a kind and quantity that is likely to be hazardous to workers;
 - (b) ensure that the ventilation system is maintained and properly used; and
 - (c) if reasonably practicable, ensure that the ventilation system is equipped with a device that provides an audible or visual warning when the system is not working effectively.

Auxiliary ventilation

- 17.2(1)** The employer must ensure that every underground mine heading that is to be advanced more than 50 m from a source of fresh air is
- (a) equipped with suitable auxiliary ventilation; and
 - (b) provided with sufficient air flow to ensure that workplace environment at the heading conforms to the requirements prescribed under subsection 4.16(1).
- 17.2(2)** The employer must install and the worker must use a fresh air supply system in every
- (a) raise;
 - (b) subdrift more than 10 m in length driven from a raise; and
 - (c) stope without through ventilation.
- 17.2(3)** The fresh air supply system must be
- (a) independent of any air supplied to any machine or drill used in the workplace;
 - (b) controlled from a place outside the entrance to the heading; and
 - (c) operated after each blast that has been fired in the workplace.

Blasting area to be ventilated

- 17.3** Subject to subsection 4.16(2), a person must not enter or remain in or be permitted to enter or remain in a workplace affected by blasting contaminants until
- (a) the ventilation system reduces the concentration of the blasting contaminants to the occupational exposure limit value or less; and
 - (b) it is safe to do so.

System for conditioning mine air

- 17.4** Before beginning to install a system for conditioning the mine ventilating air in a mine, the employer must
- (a) consult with the committee; and
 - (b) provide to a mines inspector a proposal containing such drawings, specifications and details as the mines inspector may require.

Fire protection for ventilating system

- 17.5(1)** Every employer using an oil or gas fired system for heating ventilating air must ensure that
- (a) the system is installed and maintained in accordance with *The Gas and Oil Burner Act* and the regulations made under that Act; and
 - (b) a log book is kept in which is recorded all service, maintenance and tests of the system.
- 17.5(2)** The employer must ensure that
- (a) structures housing fans that ventilate any part of the underground mine are constructed of noncombustible materials;
 - (b) pipes or ducts used to convey ventilating air are made of material which will not continue to burn after removal of the heat source; and
 - (c) the items noted in clause (b) comply with CSA Standard M427 CM91 – *Fire-Performance and Antistatic Requirements for Ventilation Materials*, when purchased and installed after the coming into force of this section.

PART 18

UNDERGROUND TRAVELWAYS, PLATFORMS AND LADDERWAYS

Application of this Part

- 18.1(1)** This Part applies only to an underground mine.
- 18.1(2)** Subject to subsection (3), Part 13 (Entrances, Exits, Stairways and Ladders) of the *Workplace Safety and Health Regulation* applies only to a new major installation at an underground mine.
- 18.1(3)** Clause 13.1(2)(a) of the *Workplace Safety and Health Regulation* does not apply at an underground mine.

Definitions

18.2 The following definitions apply in this Part.

“**catwalk**” means an elevated walkway. (« passerelle »)

“**new major installation**” means the construction, demolition, repair, alteration or removal of a structure or complex. (« nouvelle installation importante »)

“**stage**” or “**staging**” means a work platform. (« échafaudage »)

“**walkway**” means an area separated from powered mobile equipment traffic in an underground working for the purpose of pedestrian traffic. (« passage »)

Safe access and egress

- 18.3** The employer or owner must provide and maintain a safe means of access to and egress from
- (a) the workplace; and
 - (b) all work-related areas at a workplace.

Elevated platforms and stagings

- 18.4(1)** The employer must provide
- (a) guardrails and toe boards on any catwalk or walkway; and
 - (b) guardrails and toe boards on any platform from which a person could fall more than 1.5 m.
- 18.4(2)** Despite clause (1)(a), toe boards are not required on a temporary catwalk or an elevated staging on which material is not stored, or where the area below is not accessible.

- 18.4(3)** The employer must ensure that where a guardrail or toe board is provided in accordance with this section,
- (a) the guardrail is
 - (i) constructed so that
 - (A) the top of the guardrail is not less than 900 mm and not more than 1060 mm above the walkway, and
 - (B) a second rail is placed at the midpoint between the top rail and the walkway, unless the intervening space is closed by a screen or other suitable means, and
 - (ii) capable of withstanding at least 900 N applied to the rail in any direction; and
 - (b) the toe board extends from the floor to not less than 125 mm in height.

Staging planks

- 18.5(1)** The employer must ensure that staging planks are
- (a) sound and free of large knots; and
 - (b) not painted or treated to obscure the grain.
- 18.5(2)** The employer must ensure that a staging is designed with a factor of safety of 3.0.
- 18.5(3)** A worker engaged in the construction of staging must ensure that the planks are nailed or otherwise secured against slipping off their supports.

Stairway or ladderway on incline

- 18.6** The employer must provide
- (a) a stairway or ladderway when a travelway is inclined at more than 20° and less than 50°; and
 - (b) a ladderway when a travelway is inclined at 50° or more.

Stairway requirements

- 18.7** When a stairway is installed, the employer must ensure that
- (a) the slope of the stairway is not steeper than 50° from the horizontal;
 - (b) the rise, or vertical distance between landings, of any one flight does not exceed 3.7 m;

- (c) the treads and risers of any one flight are uniform in width and height; and
- (d) the stairway is fitted with a guardrail attached at a height of not less than 900 mm or more than 1060 mm above the tread of the stairs and, where the stairs are greater than 1100 mm in width, guardrails are installed on both sides of the stairs.

Ladder requirements

18.8(1) The employer must ensure that each fixed ladder used at a mine

- (a) subject to subsection (2), is securely fastened in position;
- (b) is not installed at an angle in excess of 90° to the horizontal;
- (c) is installed and maintained in a manner so as to minimize the hazard of a person falling from it;
- (d) if made of wood, is made of sound, straight-grain lumber and not painted or otherwise treated in a manner to obscure the grain;
- (e) projects at least 900 mm above the platform or opening, unless guardrails or handholds appropriate for the risk are provided above the top of the ladder;
- (f) has a distance between centres of the rungs not greater than 300 mm or less than 250 mm and has spacing of rungs that does not vary more than 12 mm in any ladderway;
- (g) provides 100 mm for a toehold clear of any timber or obstruction under the ladder; and
- (h) is capable of carrying the maximum load expected with a factor of safety of 3.0.

18.8(2) A ladder not fastened in position may be used where it is

- (a) used only for temporary access to a workplace; and
- (b) installed so that the horizontal distance from the foot of the ladder to the base of the wall against which it rests is not more than one-third of the length of the ladder and not less than one-quarter of the length of the ladder.

Defective ladders

18.9 If a ladder is defective in a way that could affect its safe use,

- (a) the employer must remove the ladder or close off access to it; and
- (b) a worker must not use the ladder until the defect is corrected, except to repair it.

Metal ladders

18.10 The employer must ensure that no worker uses a metal ladder or metal reinforced rails on a ladder near an exposed energized electrical circuit or energized electrical equipment.

Use of wire rope to construct ladder

18.11 The employer must not use or permit to be used wire rope or strands of wire rope to construct ladders for use in or about the mine, except for temporary use and on condition that

- (a) there are no frayed ropes or projecting wires;
- (b) rung spacing conforms to clause 18.8(1)(f); and
- (c) the rungs are made of stiff material and held securely in place so that no damage is caused to the rope sides.

Permanent ladderways

18.12 Except in shafts or raises, when a permanent ladderway is installed underground at an angle steeper than 70°, the employer must provide

- (a) when the ladderway is more than 4 m in length, a cage about the ladderway with the cage commencing 2 m above the base of the ladder; or
- (b) other suitable means to prevent workers from falling.

Ladders in shafts

18.13(1) Except for a ladder installed in accordance with clause 20.4(g), the employer must not install or permit the installation of a ladder in a vertical position in a shaft.

18.13(2) When a wooden ladder is used in a shaft, the employer must ensure that it is

- (a) sound, with straight grain;
- (b) assembled using suitable nails;
- (c) not painted or otherwise treated to obscure the grain; and
- (d) properly installed and adequately supported.

Landing platforms in ladderways

18.14(1) The employer must ensure that a landing platform is installed in each ladderway or manway underground

- (a) in any place where a ladder is offset;
- (b) in such manner that each section of a manway with varying inclinations meets the requirements of clause (c); and

- (c) at intervals not exceeding
 - (i) 9 m, where the inclination of the ladderway exceeds 50° but does not exceed 60°,
 - (ii) 7.5 m, where the inclination of the ladderway exceeds 60° but does not exceed 70°, or
 - (iii) 6.5 m, where the inclination of the ladderway exceeds 70°.

18.14(2) The employer must ensure that

- (a) if a ladderway has an inclination exceeding 70°, each ladder is placed so as to cover the opening in the landing platform; and
- (b) a ladderway or manway that is adjacent to an opening has substantial partitions to prevent a person from falling into the opening.

18.14(3) The employer must ensure that each landing platform is installed in such a manner as to cover the manway area, and that the opening for the ladder

- (a) at a minimum, is large enough to permit the passage of a worker's body when wearing a self-contained breathing apparatus; and
- (b) at a maximum, has no dimension greater than 600 mm when measured parallel to the ladder rung and 760 mm when measured normal to the ladder.

18.14(4) A landing platform does not have to meet the requirements of clause (3)(a) if

- (a) an exit from the workplace that is not a shaft meets the requirements of clause (3)(a); and
- (b) the landing platform is clearly marked as having restricted access.

18.14(5) When the second egress from a mine is a ladderway in excess of 300 m, the employer must do a risk assessment, in consultation with the committee, to determine the need for rest platforms in the ladderway.

PART 19 RAISES

Steeply inclined raises

- 19.1** The employer must ensure that a raise being driven that is inclined at more than 50° from the horizontal, and that is to be more than 20 m slope length and into which a worker must enter, is
- (a) driven by a raise climber or other hoisting device that protects the worker from falling material while ascending and descending; or
 - (b) divided into at least two compartments, one of which is maintained as a ladderway and is timbered to within a safe distance of the face, which distance does not exceed 7.5 m.

Cable lift raise platform

- 19.2(1)** When a cable lift raise platform is to be used at a mine, the employer must, before installation, ensure that
- (a) safe work procedures are developed for examining, testing and using the system; and
 - (b) a mines inspector is provided with
 - (i) drawings of the device and installation, and
 - (ii) a copy of the safe work procedure to be followed to examine, test and use the system.
- 19.2(2)** The employer must
- (a) train workers in the safe work procedure referred to in clause (1)(a); and
 - (b) ensure that workers comply with the safe work procedure.

Design of raise climber

- 19.3** The employer must ensure that
- (a) a raise climber is designed, constructed, installed, operated and maintained to safely perform any task for which it is used; and
 - (b) a raise climber platform is designed by a professional engineer to withstand the expected load.

Load rating, brakes and communication

- 19.4** The employer must ensure that a raise climber
- (a) is provided with a durable and clearly legible indication of the load rating that is readily accessible to the operator at the control station;
 - (b) has at least two independent means of braking, each of which is
 - (i) capable of stopping the raise climber and holding it in place, and
 - (ii) designed to be tested independently of the other;
 - (c) has an automatic overspeed brake to safely decelerate and hold the climber in the event of the climber travelling at a speed in excess of a predetermined rate;
 - (d) has an adequate and suitable means of communication between the worker operating the controls and the worker on the raise climber platform, if they are different persons; and
 - (e) has an adequate and suitable means of communication between the workers in the raise climber and the raise climber service area.

Stop block

- 19.5** Except when the track on which a raise climber operates is being extended, the employer must ensure that the raise climber has a stop block installed to prevent the raise climber from being taken beyond the end of the track.

Headcover

- 19.6** A raise climber must have a suitable headcover after 8 m of advance.

Electric-powered

- 19.7** When driven by electrical power, a raise climber must have
- (a) a suitable emergency switch in the cab that cuts off the power to the drive motors if the main control contactor fails to open; and
 - (b) a means by which the power can be isolated from the raise service area.

Emergency procedure

19.8 The employer must

- (a) ensure that the raise climber service area is designed and operated to prevent workers from exiting the raise climber while it is below the open raise;
- (b) develop and implement a safe work procedure to remove workers safely from a raise climber within two hours of being notified that the raise climber is stalled at a position other than at the raise climber service area;
- (c) train workers in the safe work procedure;
- (d) ensure that workers comply with the safe work procedure;
- (e) ensure that the means to carry out the procedure developed and implemented under clause (b) are available; and
- (f) provide a copy of the procedure to a mines inspector.

First aid kit

19.9 The employer must ensure that a raise climber is equipped with a first aid kit as required under Part 5 of the *Workplace Safety and Health Regulation*.

Self rescuers

19.10 The employer must ensure that the raise climber is equipped with an escape self-contained breathing apparatus, complete with full-face mask and sufficient capacity to enable the workers to travel to the nearest refuge station, for each worker on the climber.

Inspection of raise climber

19.11(1) At the beginning of each operating shift the employer must ensure that the brakes of a raise climber are inspected and tested by a competent worker to ensure that they are in a safe working condition.

19.11(2) Before a raise climber is started the employer must ensure that a competent worker makes a complete visual inspection of the raise climber and the surrounding area to ensure that no worker is endangered by the start-up of the raise climber.

19.11(3) The employer must ensure that a raise climber is inspected weekly by a competent person to identify any defects or unsafe conditions.

Critical parts of raise climber

19.12(1) The employer must ensure that the critical parts of a raise climber are subjected to a thorough inspection, including non-destructive testing, under the supervision of a professional engineer

- (a) before the raise climber is first put into service;
- (b) during every major overhaul;
- (c) at least once in every 4,000 hours of use or every 12 months, whichever occurs first; and
- (d) at the request of a mines inspector.

19.12(2) In subsection (1), “**critical part**” means each part of a raise climber that, if it failed, would cause the uncontrolled descent of the raise climber.

Log book requirement

19.13 The employer must

- (a) provide a raise climber log book for each raise climber and ensure that the raise climber log book is readily available to the operator;
- (b) ensure that the details of each inspection required under section 19.11, including any defect discovered as a result of the inspection, is recorded in the raise climber log book by the person who conducted the inspection; and
- (c) ensure that the entries made under clause (b) are signed by the person performing the examination, repair or modification as well as by the supervisor authorizing the repair or modification.

Operator to be competent

19.14(1) The employer must

- (a) designate a competent worker to operate a raise climber;
- (b) ensure the designated worker is competent in the safe operation of the raise climber; and
- (c) ensure that no worker other than the designated worker operates the raise climber.

19.14(2) The designated worker who operates a raise climber must not operate it unless

- (a) the operator has determined the weight of the load; and
- (b) the load is less than the rated load for the operating conditions.

Raise cross-section

19.15 The employer must ensure that the maximum cross-sectional area of a raise driven in a single pass by a raise climber is 9 m².

Installation details to be provided

19.16 Before a raise climber is first put into service and before each subsequent raise climber installation, the employer must provide

- (a) details of the raise climber installation to a mines inspector on a form approved by the director; and
- (b) a copy of the completed form to the committee.

Raise climber as only means of exit

19.17 When a raise climber or hoisting device is the sole means of access for persons to and from the workplace, a worker must not remain, and the employer must not permit a worker to remain, on a sub-level, landing, staging or other place in a raise when the raise climber or hoisting device is moved from the place.

PART 20
SHAFT SINKING AND REHABILITATION

Safe work procedures

- 20.1(1)** An employer doing shaft sinking or shaft rehabilitation at a mine must
- (a) develop and implement safe work procedures that effectively provide for the safety of workers in the event of a fire, and the control of a fire, during shaft sinking and shaft rehabilitation;
 - (b) provide the safe work procedures to a mines inspector before the shaft sinking or shaft rehabilitation begins;
 - (c) as often as necessary, train each worker in the procedures developed under clause (a); and
 - (d) ensure that workers comply with the safe work procedures.
- 20.1(2)** The safe work procedure developed and implemented under clause (1)(a) must require the use of fire resistant hydraulic fluids for shaft sinking equipment.
- 20.1(3)** The employer must
- (a) test the effectiveness of the procedures and emergency warning system or systems referred to in subsection (1) as often as noted in the safe work procedures provided to a mines inspector; and
 - (b) provide a report within seven days after the test to a mines inspector and the committee.
- 20.1(4)** If a test shows that a procedure or emergency warning system is ineffective, the employer must
- (a) immediately make any change necessary to make the procedure or system effective and re-test the effectiveness of the procedure and the system;
 - (b) provide a report within seven days of the re-test to a mines inspector and the committee; and
 - (c) inform all workers that may be affected of the changes made in the procedures or emergency warning system.

Design of shaft sinking equipment

- 20.2(1)** The employer must ensure that the conveyance used in shaft sinking, its components, the hoisting system and mountings and the crosshead are
- (a) designed by a professional engineer;
 - (b) constructed in accordance with that design; and
 - (c) installed, operated and maintained in accordance with that design so that the conveyance is capable of transporting workers safely.
- 20.2(2)** If a multi-deck stage is used in shaft sinking, the employer must ensure that the multi-deck stage is
- (a) designed by a professional engineer;
 - (b) constructed in accordance with that design; and
 - (c) installed, operated and maintained in accordance with that design.
- 20.2(3)** The employer must ensure that any hoist rope used in shaft sinking meets the load factor requirements prescribed under section 24.4.
- 20.2(4)** The employer must
- (a) develop and implement safe work procedures for all shaft sinking activities;
 - (b) train workers in the safe work procedures; and
 - (c) ensure that workers comply with the safe work procedures.

Shaft installations

- 20.3(1)** Before beginning shaft sinking, the employer must provide to a mines inspector drawings and specifications, certified by a professional engineer, showing details of the following:
- (a) the shaft being solidly collared to bedrock with concrete;
 - (b) the shaft timbering or lining program;
 - (c) equipment to be used during sinking;
 - (d) sinking procedure;
 - (e) final shaft layout;
 - (f) equipment to be used in the finished shaft.
- 20.3(2)** Before beginning shaft sinking, the employer must review the documents provided to the mines inspector with the committee.

Shaft sinking requirements

- 20.4** During shaft sinking and preliminary development work during shaft sinking, the employer must install and maintain the following:
- (a) when a vertical shaft has reached a depth of 100 m below the head sheaves, a crosshead to guide the sinking bucket that is
 - (i) equipped with a safety device for attaching the bucket to the crosshead in such a manner that the crosshead cannot stick in the shaft compartment without stopping the bucket,
 - (ii) landed on at least two chairing devices, at the bottom crosshead stop, to prevent distortion of the crosshead, and
 - (iii) of a type that encloses the bucket;
 - (b) dump doors that
 - (i) prevent material from falling down the shaft when the bucket is being dumped, and
 - (ii) are provided with devices that automatically latch the dump doors out of the shaft;
 - (c) service doors that cover the sinking compartment of the shaft completely at the collar and any other location in the shaft where tools and other materials are loaded or unloaded from the bucket (except the shaft bottom), and that are
 - (i) equipped with mechanical devices that automatically latch the doors open, clear of the shaft compartment,
 - (ii) kept closed when a bucket is being loaded or unloaded with tools and other materials at that location, and
 - (iii) kept closed when persons are entering or leaving the bucket at that location unless a closed crosshead provides equal protection;
 - (d) a suitable landing or platform at each service point to ensure the safe loading and unloading of persons;
 - (e) dual lights that indicate to the hoist operator that
 - (i) the dump doors are in or out of the shaft compartment,
 - (ii) the service doors are in or out of the shaft compartment, and
 - (iii) the bucket is not descending without the crosshead from the bucket dumping position;
 - (f) timbering, lining or casing that secures the shaft walls and provides for safe operation of a conveyance, and that is maintained within a distance of the bottom not exceeding 20 m;

- (g) an auxiliary ladder that extends from the permanent ladders to the shaft bottom and that can be lowered promptly.

Riding in bucket

20.5(1) If workers are to be transported in a bucket during shaft sinking operations, the employer must

- (a) develop and implement safe work procedures for transporting workers in a bucket;
- (b) train workers in the safe work procedures;
- (c) ensure that workers comply with the safe work procedures; and
- (d) provide a copy of the safe work procedures to a mines inspector.

20.5(2) The safe work procedures for transporting workers in a bucket must include a procedure outlining how workers can escape from the shaft in the event of a failure in the mine hoisting plant.

20.5(3) When persons are transported in a bucket during shaft sinking operations, the shaft leader must ensure that

- (a) the bucket is steadied before leaving the top or bottom of the shaft;
- (b) the bucket, when descending, is brought to a complete stop at least 5 m above the shaft bottom and remains there until a separate signal to lower has been signalled to the hoist operator;
- (c) the bucket, when ascending from the bottom, is brought to a complete stop at the crosshead before hoisting is resumed;
- (d) on the initial trip after a blasting operation, the bucket
 - (i) is stopped at the point where, owing to the blast, it could be unsafe to proceed without careful examination, and the point is not lower than 15 m above the blasting set, or elevation of the blasting operation,
 - (ii) is lowered slowly from the point referred to in subclause (i) on signal from a worker in the bucket and at such speed as to be fully under control, by signal, of the worker, and
 - (iii) carries on the trip only sufficient workers as are required to examine the shaft; and
- (e) the persons are in the bucket and not on the bucket lip or crosshead.

Prohibition re certain sinking buckets

20.6 The employer must not permit the use in a shaft of a sinking bucket with a ball and chain attached that could inadvertently dump the bucket.

Load in sinking bucket

20.7 The employer must not permit a worker to fill, and a worker must not fill, a sinking bucket so that a piece of loose rock projects above the rim.

Work at different elevations

- 20.8** The employer must not permit work to be done simultaneously in a shaft at more than one elevation unless
- (a) all workers in the lower elevation are protected from the danger of falling objects by a covering that
 - (i) has been designed by a professional engineer to withstand any impact likely to occur, and
 - (ii) extends over as much of the shaft as is necessary to provide complete protection from the danger; and
 - (b) all workers at the higher elevation are made aware of the workers beneath them.

Shaft mucking machine

20.9 The employer must not permit a worker to be and a worker must not be on or below a shaft mucking machine unless the machine is secured in position by two independent means, each capable of supporting the full load.

PART 21 SHAFT REQUIREMENTS

Transportation of persons

21.1 The employer must provide

- (a) except during shaft sinking operations, a cage or skip to transport persons into and out of the mine that is constructed in accordance with section 23.1; and
- (b) during shaft sinking operations, transportation of workers in accordance with section 20.5.

Record books

21.2(1) The employer must maintain the following record books for every mine where a mine hoist is used to hoist persons or material in a shaft:

- (a) hoist operator's log book;
- (b) machinery record book;
- (c) rope record book;
- (d) shaft inspection record book.

21.2(2) The books required under subsection (1) must be maintained in a form acceptable to the director.

Shaft requirements

21.3(1) The employer must provide and maintain the following in each shaft in which a shaft conveyance operates:

- (a) sufficient clearance to provide a distance for an overwind that exceeds the greater of
 - (i) twice the stopping distance of the mine hoist at the maximum speed permitted by the hoist controls, or
 - (ii) 3 m;
- (b) secure timbering, lining or casing;
- (c) a means to guide each shaft conveyance to prevent its contact with another shaft conveyance or any shaft furnishing;
- (d) a gate at each shaft opening on surface, each level and each loading pocket that is not otherwise securely closed off, which gate
 - (i) has not more than 40 mm clearance beneath its lower edge, and

- (ii) is capable of withstanding impact from any powered mobile equipment that can approach the shaft;
- (e) a derail or other precaution, additional to the requirement of clause (d), if the mines inspector considers it necessary;
- (f) subject to subsection (2), a suitable walkway or ladderway that is
 - (i) constructed as required under Part 18, and
 - (ii) separated from the compartment or division of the shaft in which material is hoisted, by a partition that prevents a person in the walkway or ladderway from contacting the shaft conveyance and prevents falling material from entering the walkway or ladderway;
- (g) at each level or other access to the mine workings from the shaft,
 - (i) suitable standing room outside the shaft, and
 - (ii) a suitable passageway from each shaft compartment in which persons can be hoisted, and from the shaft manway to the level or other access to the mine workings;
- (h) for each counterweight,
 - (i) in a timbered shaft, a separate compartment suitably guarded to prevent inadvertent access, or
 - (ii) in an untimbered shaft, suitable guards that prevent any hazard to persons at pass points, landing places or any other place of access to the shaft;
 - (i) a means to prevent a hoisting conveyance carrying persons from being lowered into water in the bottom of the shaft.

21.3(2) A conveyance may be operated in a shaft that does not contain a walkway or ladderway if

- (a) an independently powered conveyance is available for use in place of the ladderway; and
- (b) the employer
 - (i) develops and implements a safe work procedure for emergency access,
 - (ii) trains workers on the safe work procedure,
 - (iii) ensures that workers comply with the safe work procedure, and
 - (iv) provides a copy of the safe work procedure to a mines inspector.

Compartment lining at levels

- 21.4** Except during sinking operations, the employer must provide and maintain in each shaft where material is handled, a partition
- (a) around each compartment at the collar and at all levels except on the sides on which material is loaded or unloaded; and
 - (b) that extends, above the collar and all levels, a distance not less than the height of the hoisting conveyance plus 1.8 m, and that extends below the collar and all levels at least 1.8 m.

PART 22
SHAFT EXAMINATION AND SAFETY PRECAUTIONS

Shaft inspection

- 22.1(1)** The employer at a mine at which a mine hoisting plant is in use must ensure that at least once in each week
- (a) a thorough examination is made of the operating compartments of each shaft; and
 - (b) a report is made and signed in the shaft inspection record book of
 - (i) every such examination, and
 - (ii) all work and repairs done as a result of an examination.
- 22.1(2)** The supervisor in charge of the maintenance of the shaft and headframe must
- (a) at least once in each week, review the entries made in the shaft inspection record book during the preceding week;
 - (b) ascertain that the examination required under subsection (1) has been made and that all necessary servicing and repairs are completed, in progress or scheduled for repair without undue delay;
 - (c) upon completion of the review required under clause (a), certify in the shaft inspection record book that the supervisor has complied with clauses (a) and (b);
 - (d) record over the supervisor's signature in the shaft inspection record book any dangerous condition reported about the shaft and the action taken to correct the condition;
 - (e) ensure that any dangerous condition referred to in clause (d) will not expose workers to unsafe conditions while remedial actions are carried out; and
 - (f) ensure that any dangerous condition and corrective action referred to in clause (d) are reported to the committee.

Protection of workers

- 22.2(1)** A worker must not and the employer must not require or permit a worker to work or conduct an examination
- (a) in a shaft compartment, above or below the shaft collar, while hoisting operations are in progress in the compartment, unless the hoisting operation is necessary to perform the work or examination; or

- (b) in a shaft or in a workplace that is part of or adjacent to the shaft, unless the worker is protected from accidental contact with any moving shaft conveyance or counterweight and objects falling in the shaft.

22.2(2) A worker must not enter or cross and the employer must not require or permit a worker to enter or cross a hoisting compartment of a shaft in which hoisting operations are in progress, except for the purpose of entering or leaving the shaft conveyance in the compartment, or making the examination required under clause 22.1(1)(a).

Design of staging or work platform in shaft

22.3 When a staging or a work platform, which is not a shaft conveyance, is suspended in a shaft and is used to transport or support a worker who is performing work in a shaft, the employer must ensure that

- (a) a staging or work platform suspended in a shaft is designed by a professional engineer and built in accordance with the design;
- (b) notice is given to the committee and to a mines inspector before the staging or work platform is first used;
- (c) safe work procedures for working on the staging or work platform are developed and implemented;
- (d) workers are trained in the safe work procedures; and
- (e) workers comply with the safe work procedures.

Staging or equipment suspended in shaft

22.4(1) The employer must not use or permit the use of open hooks in conjunction with the suspension of any staging, working platform or equipment in a shaft.

22.4(2) When a worker is required to be on or below a staging or work platform suspended in a shaft, or when the staging or work platform is being moved, the employer must ensure that a means of support is used in addition to the means of suspension.

Use of buckets

22.5 Where a bucket is used in a shaft for other than sinking purposes, the employer must

- (a) not permit simultaneous operations to be carried on at more than one elevation until the service doors required under clause 20.4(c) have been installed at the collar and at every point of service in the shaft;

- (b) ensure that the service doors are kept closed at all times when tools, supplies or materials are being loaded into or taken out of the bucket at the location; and
- (c) provide and cause to be used a suitable landing or platform at every working level to enable the safe loading and unloading of persons.

PART 23
CAGES AND SKIPS

Construction of cages and skips

- 23.1** The employer must ensure that all cages and all skips used for hoisting persons,
- (a) are constructed so as to prevent any part of the body of a person riding on them or any part of material that could be transported on them from coming into contact with the timbering or sides of the shaft;
 - (b) have a hood made of mild steel plate not less than 5 mm thick or a material of equivalent strength;
 - (c) have a casing of mild steel plate, not less than 3 mm thick or a material of equivalent strength, which
 - (i) extends from the floor to a height not less than 1.5 m above the floor, and
 - (ii) encloses the full area of the floor;
 - (d) have positive protection against inadvertent dumping;
 - (e) have an exit in the roof that can be opened from inside or outside the cage for the emergency exit of persons;
 - (f) in the case of cages, are equipped with a door or doors that
 - (i) have a device for positively latching the door in the closed position,
 - (ii) have a clearance of not more than 20 mm above the floor of the cage,
 - (iii) extend not less than 1.4 m above the floor of the cage, and
 - (iv) are constructed and arranged so that the doors cannot open outwards;
 - (g) are equipped, if suspended from a single rope or attachment, with safety catches and mechanisms that
 - (i) are designed and certified by a professional engineer,
 - (ii) have sufficient strength to hold the shaft conveyance with its maximum static load at any point in the shaft, and
 - (iii) have been tested successfully in accordance with section 23.3;

- (h) are designed with a factor of safety when carrying its maximum static load of not less than
 - (i) 10.0, for all load bearing parts attaching the conveyance to the rope and to other conveyances, and
 - (ii) 8.0, for all other parts of the conveyance; and
- (i) are thoroughly inspected annually by a competent person for wear, damage or structural deterioration that could reduce the factor of safety.

Certificate of load capacity

23.2(1) Before a shaft conveyance is installed in a shaft, the employer must provide to a mines inspector a certificate issued by a professional engineer showing

- (a) the load capacity of the conveyance and attachments;
- (b) the weight of any tail rope and other suspended load; and
- (c) the designed factor of safety.

23.2(2) The employer must inform the committee of the installation of any conveyance in a shaft before it is installed.

23.2(3) After having received the certificate under subsection (1) and the documentation referred to in subsection 23.7(3), the mines inspector is required to issue a certificate to the employer showing the number of persons allowed to ride in the conveyance and the weight of the materials allowed to be loaded in the conveyance.

Free fall tests

23.3(1) Before a shaft conveyance equipped with safety catches and mechanisms is used for hoisting persons, the employer must

- (a) conduct free fall tests in accordance with subsection (2); and
- (b) ensure that, during the initial free fall test in a new shaft or a rehabilitated shaft, the shaft conveyance travels at a speed equal to its designed hoisting speed while transporting persons.

23.3(2) Free fall tests must be performed under the following conditions:

- (a) the shaft conveyance must carry a weight equal to its maximum permitted load of persons and any material permitted to be carried at the same time;
- (b) the shaft conveyance must travel at a speed equal to
 - (i) its designed hoisting speed while transporting persons, or

- (ii) subject to subsections (3) and (4), the speed attained by a free fall of 1.5 m;
- (c) the guides on which the test is made must be representative of those in the shaft.

23.3(3) A free fall test must not be performed at the speed attained by a free fall of 1.5 m unless

- (a) before the free fall test, calculations by a professional engineer show that the safety catches or mechanisms would stop the conveyance when carrying its maximum permitted material load; and
- (b) the design and configuration of the safety catches and mechanisms, and loading on the conveyance, have previously been tested at the designed hoisting speed when transporting persons.

23.3(4) If a free fall test is to be performed at a speed attained by a free fall of 1.5 m, the person performing the test must record the rate of deceleration and the rate of change in deceleration of the conveyance on a chart suitable for determining the deceleration of the conveyance.

23.3(5) A free fall test is deemed to be successful if

- (a) the shaft conveyance is decelerated to a stop at an average rate that is not less than 10 or greater than 30 m per second; and
- (b) there is no damage to the safety catches and mechanisms.

23.3(6) The employer must enter a report of the free fall test in the machinery record book and provide a copy of the report to a mines inspector and the committee.

23.3(7) When alterations or significant repairs are made to safety catches or mechanisms that could affect the performance of the catches or mechanisms, the employer must conduct

- (a) a drop test in accordance with clause 23.4(1)(b), before the conveyance is used; and
- (b) a free fall test in accordance with subsection (2) within three days after the day the alterations or repairs are made.

Regular examination of safety catches

23.4(1) The employer must designate a competent worker who must

- (a) at least once in each operating day, examine the safety catches or mechanisms to be sure they are clean and in proper adjustment and working condition; and

- (b) at least once in every three months, perform a drop test to test the safety catches by releasing the conveyance suddenly from rest to ensure that the safety catches are able to stop it.

23.4(2) The worker making the examination and tests required under subsection (1) must

- (a) enter the results of the examination and tests in the machinery record book and sign the record; and
- (b) immediately report any malfunction to the worker's supervisor.

23.4(3) If the safety catches or mechanisms do not operate correctly, the employer must not permit the conveyance to be used for hoisting persons unless

- (a) the safety catches have been repaired and, in accordance with subsection 23.3(7), proven to operate correctly; or
- (b) an emergency condition exists and
 - (i) suitable examinations and precautions have been taken, and
 - (ii) as soon as reasonably practicable, the workers, the committee and a mines inspector have been advised of the condition.

Chairing devices

23.5(1) When chairing devices are used to land a shaft conveyance at any point in a shaft, the employer must arrange the chairing devices so that they

- (a) clear the shaft when the conveyance is lifted off the chairs; and
- (b) can only be operated from outside the conveyance.

23.5(2) A worker must not use and the employer must not require or permit a worker to use chairing devices to land a shaft conveyance at a point in a shaft

- (a) when persons are on the shaft conveyance; or
- (b) without having given a proper chairing signal to the hoist operator.

23.5(3) The employer must ensure that the chairing devices are designed by a professional engineer.

Hoisting persons

23.6(1) A person must not be, and the employer must not require or permit a person to be, hoisted in a shaft or other underground opening unless the person is

- (a) subject to subsections (2) to (4), in a cage constructed in accordance with section 23.1;
- (b) in or on a raise climber or scaling platform that meets the requirements of Part 19 – Raises;
- (c) hoisted by equipment that has been certified by a professional engineer for hoisting persons engaged in construction, repair or maintenance work; or
- (d) inside a bucket,
 - (i) during shaft sinking, or
 - (ii) before the installation of permanent shaft conveyances, if
 - (A) the bucket is operated in accordance with section 22.5, and
 - (B) the equipment to be used has been certified by a professional engineer for hoisting persons engaged in construction, repair and maintenance work.

23.6(2) If equipment is required to be certified under clause (1)(c) or paragraph (1)(d)(ii)(b), the employer must

- (a) in consultation with a professional engineer, develop and implement safe work procedures for the use of the equipment;
- (b) train the persons to be hoisted in the equipment in the safe work procedures; and
- (c) ensure that the persons to be hoisted in the equipment comply with the safe work procedures.

23.6(3) While employed in shaft inspection and maintenance, workers may be hoisted

- (a) in a bucket or skip; or
- (b) on top of a conveyance, when
 - (i) a safety cover that has been designed by a professional engineer is installed overhead to prevent danger from falling objects,
 - (ii) the conveyance top consists of a platform equipped with a guard-rail that allows the workers to perform their work safely, or

- (iii) other suitable means of fall protection are used by the workers.

23.6(4) To rescue persons or to clear persons from the mine in an emergency, persons may be hoisted in a shaft conveyance without safety catches or mechanisms if

- (a) the equipment normally used for hoisting persons is unserviceable because of failure or defect;
- (b) the employer has developed and implemented safe work procedures for hoisting persons in a shaft conveyance without safety catches or mechanisms;
- (c) the employer has trained workers in the safe work procedures; and
- (d) the employer ensures that workers comply with the safe work procedures.

23.6(5) If a conveyance normally used for hoisting persons is unserviceable and arrangements are made for loading and unloading that preclude any danger to persons, the employer may, in accordance with subject to section 23.8, and in consultation with the committee, permit persons to be hoisted in a skip that meets all the requirements of section 23.1, except clause 23.1(g).

Shaft conveyances

23.7(1) When a shaft conveyance is operated in a shaft or other underground opening, the employer must ensure that

- (a) the shaft conveyance is in the charge of a cage tender or skip tender who is competent in such duties; and
- (b) the certificate issued by a mines inspector under subsection 23.2(3) is posted at the collar of the shaft or winze.

23.7(2) The employer must ensure that

- (a) the maximum material load on a shaft conveyance does not exceed the lesser of
 - (i) the maximum allowable suspended load for the mine hoist, less the sum of the weight of the hoisting ropes, the weight of any tail ropes, and the weight of the conveyances and attachments,

- (ii) the breaking strength of the rope, divided by the required factor of safety, minus the maximum weight of rope suspended in one compartment, minus the weight of the conveyance and attachments in the compartment, provided that when multiple ropes are used, the lowest breaking strength of a rope is used for all ropes in load calculations, and
- (iii) subject to clause 23.1(h), the maximum allowable load for which the conveyance is rated by the manufacturer;
- (b) the unbalanced load on the mine hoist as rated by the manufacturer or as certified by a professional engineer is not exceeded; and
- (c) the number of persons permitted on the conveyance does not exceed the lesser of
 - (i) 85% of the maximum material load divided by 90 kg,
 - (ii) when the clear floor area is less than 1.86 sq.m., the clear floor area in sq.m. divided by 0.19,
 - (iii) when the clear floor area is 1.86 sq.m. and less than 4.64 sq.m., the clear floor area in sq.m. divided by 0.16, and
 - (iv) when the floor area is 4.64 sq.m. or more, the clear floor area in sq.m. divided by 0.14.

23.7(3) The employer must provide a mines inspector documentation demonstrating compliance with subsection (2).

23.7(4) Despite clause (1)(a), a shaft conveyance may be operated without a cage tender when the employer ensures that the workers operating the conveyance are trained in its operation and emergency procedures.

Operation of conveyance

23.8(1) A cage tender or skip tender who is authorized to be in charge of a shaft conveyance must

- (a) maintain order among persons in the conveyance;
- (b) not load or permit the conveyance to be loaded in excess of the number of persons or weight of material shown in the certificate issued under section 23.7;
- (c) not permit the hoisting of a person while ore or waste material is being hoisted
 - (i) in the skip of a skip-cage combination, or
 - (ii) in a skip which is in balance with the cage;

- (d) permit only those workers required to handle material or equipment to be in or on the shaft conveyance while material or equipment is being hoisted;
- (e) ensure that material and equipment is loaded and secured so as to prevent it from shifting its position or catching the shaft timber or any obstacle;
- (f) notify the hoist operator of an unusually heavy or irregularly shaped load on or under the shaft conveyance, and not permit a person to ride in the conveyance when such a load is being carried;
- (g) subject to subsection (4), except during shaft inspection, close and keep closed all conveyance doors and hatch covers until a full stop is made at the destination signalled for, unless no persons are riding in the conveyance; and
- (h) subject to subsection (3), if not riding in the conveyance, remain available within hearing of the shaft signal at all times that persons are underground in an area serviced by the conveyance.

23.8(2) Despite clause (1)(d), hand tools protected with guards and small equipment that is properly secured may be hoisted along with workers if the conveyance is not crowded.

23.8(3) A cage tender or skip tender who is authorized to be in charge of the shaft conveyance and who is a member of the only crew working on a particular level may leave the vicinity of the shaft after giving the conveyance release signal if

- (a) no person is on another level; or
- (b) no person or group of persons on another level is without a person authorized to give signals.

23.8(4) In the case of an inadvertent stop in the shaft, the cage doors may be opened and persons may leave the shaft conveyance on instruction to do so from the employer or supervisor in charge at the mine after the employer or supervisor has advised the hoist operator.

23.8(5) The employer must

- (a) develop and implement safe work procedures for an inadvertent stop in the shaft;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

23.8(6) A person must not obstruct or distract a worker authorized to give signals while the worker is in charge of a shaft conveyance.

Accumulation of water in the shaft

- 23.9** If water has inadvertently accumulated in the shaft, a shaft conveyance may only be used if the employer has
- (a) first developed and implemented safe work procedures for use of the shaft conveyance;
 - (b) trained workers in the safe work procedures;
 - (c) ensured that workers comply with the safe work procedures;
 - (d) provided a copy of the safe work procedures to a mines inspector; and
 - (e) ensured that the shaft conveyance is used under the direct supervision of a supervisor.

PART 24
HOIST ROPE REQUIREMENTS

Meaning of “SABS”

24.1 In this Part, “SABS” means the South African Bureau of Standards.

Rope certificate

24.2(1) The employer must not install or use or permit the installation or use of a shaft rope at a mine unless the employer

- (a) has on file a certificate from the rope’s manufacturer indicating that the rope was tested in a rope testing laboratory in accordance with test procedures of CSA Standard G4-09 – *Steel Wire Rope for General Purpose and for Mine Hoisting and Mine Haulage*, and showing the following:
 - (i) the name and address of the manufacturer,
 - (ii) the manufacturer’s rope or reel number,
 - (iii) the date of manufacture,
 - (iv) the diameter of the rope,
 - (v) the weight per unit length of the rope,
 - (vi) the trade name of interior rope lubricant,
 - (vii) the percentage by mass of lubricant in the core,
 - (viii) the construction and class of core,
 - (ix) the number of strands,
 - (x) the number of wires per strand,
 - (xi) the breaking stress of the steel of which the wires are made,
 - (xii) the diameter of wires,
 - (xiii) the standard torsion test of wires,
 - (xiv) the actual breaking load of rope,
 - (xv) the extension of the rope at the breaking load,
 - (xvi) the length of rope;
- (b) has on file a breaking test certificate issued for the tests prescribed in clauses 25.1(1)(a) and 25.1(3)(c); and
- (c) in a case where the rope has been previously used, has on file the record of its previous use, and the results of tests and examinations at the time of installation showing it to be safe for use.

- 24.2(2)** The employer must not install or use or permit the installation or use of a shaft rope that has been spliced.
- 24.2(3)** When a shaft compartment is abandoned for hoisting purposes, the employer must ensure that the hoisting rope is immediately removed from the shaft.

Rope record book

- 24.3(1)** When a hoist rope is installed at a mine, the employer must record the following in the rope record book:
- (a) the information prescribed in clause 24.2(1)(a);
 - (b) the results of the test referred to in clause 24.2(1)(b);
 - (c) if applicable, the history of the hoisting rope outlining the following:
 - (i) the date on which the rope was installed,
 - (ii) dates of shortening,
 - (iii) dates and results of prescribed tests,
 - (iv) the date of and reason for removal of the rope,
 - (v) the date installed in and removed from any previous location;
 - (d) the name of the supplier and date of purchase;
 - (e) the identification number of the rope;
 - (f) the name of the shaft or winze and compartment in which the rope is used;
 - (g) the weight of the conveyance;
 - (h) the maximum material load allowed under clause 23.7(2)(a);
 - (i) the maximum weight of the rope in service below the sheave;
 - (j) the static factors of safety at the conveyance connection and at the head sheave with the rope fully paid out.
- 24.3(2)** The employer must send to a mines inspector, at the time a shaft rope is installed in a location, a duplicate copy of the entries required under subsection (1).
- 24.3(3)** When a hoisting rope is removed from a shaft compartment, the employer must send to a mines inspector a notice stating
- (a) the date of removal;
 - (b) the reasons for the removal;

- (c) the disposition of the rope; and
- (d) any other information the mines inspector may request.

Factors of safety for shaft ropes on a drum hoist

24.4(1) The employer must ensure that the factor of safety of each shaft rope when installed on a drum hoist at a mine is

- (a) not less than 8.5 at the end of the rope, when it is attached to the shaft or winze conveyance, and when the total weight consists of the maximum weight of the conveyance plus the maximum weight of material that may be hoisted;
- (b) not less than 5.0 at the point when the rope leaves the head sheave and, the rope being fully let out, the total weight consisting of the maximum weight of the conveyance, plus the maximum weight of material that may be hoisted and the weight of the portion of the rope that extends from the head sheave to the conveyance;
- (c) when installed on a drum hoist that was in operation at its present location before November 1, 1973, not less than 6.0 for shafts and winzes less than 610m in depth at the point when the rope leaves the head sheave and, the rope being fully let out, the total weight consisting of the maximum weight of the conveyance, plus the maximum weight of material that may be hoisted and the weight of the portion of the rope that extends from the head sheave to the conveyance;
- (d) not less than 6.5 at the point when the rope leaves the head sheave and, the rope being fully let out, the total weight consisting of the maximum weight of the conveyance, plus the maximum weight of material that may be hoisted and the weight of the portion of the rope that extends from the head sheave to the conveyance, when the conveyance is
 - (i) being used to transport persons, and
 - (ii) not equipped with safety catches and mechanisms that have been proven to operate correctly under section 23.3.

24.4(2) Clause (1)(b) does not apply if

- (a) the drum hoist meets the standards set out in SABS Code of Practice 0294, Ed. 1 – *The performance, operation, testing and maintenance of drum winders relating to rope safety*, as approved according to procedures of SABS on August 4, 2000; and

- (b) the rope is used, maintained and examined according to the requirements set out in SABS Code of Practice 0293:1996 – *Condition assessment of steel wire ropes on mine winder, as approved by the President of SABS on September 16, 1996.*

Factor of safety for shaft ropes on friction hoists

24.5(1) The employer must ensure that the factor of safety of each shaft rope when installed on a friction hoist is not less than the greater of the following:

- (a) 5.5, for any depth of shaft when the rope is installed; or
- (b) the factor of safety determined in accordance with following formula:

$$\text{Factor of safety} = 8.0 - .00164d$$

In this formula, "d" is the maximum length in metres of rope suspended below the head sheave.

24.5(2) The employer must ensure that the factor of safety of each tail rope when installed is not less than 7.0.

24.5(3) The employer must ensure that the factor of safety of each rubbing rope when installed is not less than 5.0.

Rope dressing treatment

24.6 The employer must ensure that, except for plastic impregnated ropes,

- (a) every drum hoist rope is treated with a rope dressing as often as necessary to protect the rope from corrosion, in accordance with the recommendations of the manufacturer or a professional engineer; and
- (b) the worker who treats a hoist rope with rope dressing records the treatment in the machinery record book and signs the entry.

Rope attachment

24.7 The employer must ensure that

- (a) a shaft rope is attached to the conveyance by a device that will not inadvertently disconnect;
- (b) the device for attaching a shaft rope to a conveyance or any other suspension point has a factor of safety of 10.0 when the device is carrying its maximum load; and
- (c) on a drum hoist installation, the hoisting rope from a shaft conveyance or counterweight is securely fastened to the spider of the drum or around the drum shaft.

Examination and test of attachments

- 24.8(1)** Following the installation of a new hoisting rope or after the cutting of a previously installed rope, the employer must ensure that
- (a) a competent person examines the connecting attachments between the rope and the conveyance or counterweight and the connection between the rope and the drum;
 - (b) the results of the examination required under clause (a) are recorded in the machinery record book and the entry signed by the person making the examination;
 - (c) before the transportation of persons, two complete test trips of the conveyance or counterweight are made through the working portion of the shaft, with the conveyance or counterweight bearing its maximum permissible load; and
 - (d) the hoist operator records the trips under clause (c) in the hoist operator's log book.
- 24.8(2)** The employer must ensure that every hoist rope attachment is tested non-destructively before use and at intervals not exceeding six years to confirm that the required factor of safety is maintained.

Operation of drum hoist

- 24.9(1)** The employer must not require or permit a drum hoist to be operated which has,
- (a) when the bucket, cage, skip or counterweight is at the lowest point in the shaft from which hoisting is effected, less than three turns of rope upon the drum; or
 - (b) when the conveyance is at the highest point of travel in the shaft,
 - (i) if the drum has helical or spiral grooving or does not have grooving, more than three complete layers of rope on a drum, or
 - (ii) if the drum has parallel and half pitch grooving, more than four complete layers of rope on a drum.
- 24.9(2)** Despite subclause (1)(b)(ii), a drum hoist may have a maximum of five layers of rope if
- (a) the mine hoisting plant meets the standards set out in SABS Code of Practice 0294, Ed. 1 – *The performance, operation, testing and maintenance of drum winders relating to rope safety*, as approved according to procedures of SABS on August 4, 2000; and

- (b) the rope is used, maintained and examined according to the requirements set out in SABS Code of Practice 0293:1996 – *Condition assessment of steel wire ropes on mine winders*, as approved by the President of SABS on September 16, 1996.

Shaft rope standards

24.10 The employer must not require or permit a shaft rope to be used in a shaft if in any part of the rope

- (a) the existing strength has decreased to less than
 - (i) for a hoist rope, 90% of the actual breaking load specified on the manufacturer's certificate,
 - (ii) for a tail rope, 85% of the actual breaking load specified on the manufacturer's certificate, or
 - (iii) for a guide or rubbing rope, 75% of the actual breaking load specified on the manufacturer's certificate;
- (b) the extension of a test piece has decreased to less than 60% of the extension specified on the manufacturer's certificate, when tested to destruction;
- (c) the number of broken wires in a section of the rope equalling the length of one lay exceeds five percent of the total number of wires;
- (d) significant corrosion or significant deterioration appears on the crown of the strand;
- (e) the rate of stretch in the hoist rope begins to show a significant increase over the normal stretch noted during its service;
- (f) a visual or other examination or non-destructive testing indicates a defect that may endanger the safety of a person; or
- (g) the plastic covering on plastic impregnated ropes has cracked or deteriorated to a point where excessive corrosion of the metal wires has occurred.

PART 25
EXAMINATION AND TESTING OF SHAFT ROPES

Breaking tests of shaft ropes

- 25.1(1)** If a shaft rope is used at a mine the employer must ensure that destructive breaking tests of specimens of the rope are carried out at
- (a) the time it is installed, if the installation date is more than two years since it was certified by its manufacturer, as required under clause 24.2(1)(a); or
 - (b) in the case of a drum hoist, 18 months after the rope has been in service and every six months after that.
- 25.1(2)** The employer must ensure that destructive breaking tests are also carried out
- (a) in the case of a friction hoist, on specimens from the end of the hoist rope, if and when such test specimens are available during the service life of the rope; and
 - (b) on specimens from any location in the shaft rope's length specified by a mines inspector, if the rope has been removed from service and the mines inspector is of the opinion that the testing is in the interest of safe mine hoisting practices.
- 25.1(3)** The employer must ensure that the test specimens are
- (a) adequately seized before the rope is cut;
 - (b) subject to clause (2)(a), 2.4 m in length; and
 - (c) tested in a rope testing laboratory in accordance with test procedures of CSA Standard G4-09 – *Steel Wire Rope for General Purpose and for Mine Hoisting and Mine Haulage*.

Non-destructive testing

- 25.2** The employer must ensure that non-destructive tests are made throughout the working length of shaft ropes at the following times:
- (a) for each hoist rope used on drum and friction hoists, within the first six months of service and after that, at intervals not exceeding four months or at an interval shorter than four months as determined when, by extrapolation of past test results, the loss in breaking strength will reach 10%;

- (b) for each tail rope and rubbing rope, at the end of 12 months service and, after that, at regular intervals not exceeding eight months, except where a previous test has disclosed a loss exceeding 5% of the breaking strength in which case the interval must not exceed four months.

Test certificate

25.3 When a breaking test or a non-destructive test is made on a shaft rope the employer must ensure that

- (a) a summary of the test results and the date of the tests are recorded in the rope record book;
- (b) a certificate of the test, and all graphs and interpretations, which have been signed by the person making the interpretation, are placed on file at the mine and retained for the life of the rope; and
- (c) within 14 days after the test is made, a copy of the certificate and the graphs and interpretations are provided to a mines inspector.

Maintenance of shaft ropes

25.4 When a mine hoist is used at a mine the employer must ensure that

- (a) in the case of a drum hoist, after every six months of service the portion of the rope at the conveyance end within the clamps is cut off and discarded;
- (b) in the case of a friction hoist, after every six months of service the position of the rope between the clamps is changed or the portion of the rope within the clamps is thoroughly cleaned and examined;
- (c) the guide and rubbing rope attachments and tensioning devices are thoroughly cleaned and examined every six months;
- (d) sockets used on shaft ropes are thoroughly cleaned and examined after six months of service and a systematic schedule and procedure for resocketing is established; and
- (e) the results of the examinations and procedures referred to in clauses (a) to (d) are recorded in the machinery record book.

Rope clearance

25.5 The employer must ensure that

- (a) water and muck spillage in the shaft sump is removed in order that the tail ropes have a clear passage at all times; and
- (b) all guide and rubbing rope tensioning devices are clear of obstructions.

Examination of shaft ropes

25.6(1) The employer must

- (a) document a procedure for the examination of shaft ropes in accordance with this section;
- (b) designate a competent person to conduct the examinations; and
- (c) ensure that the required examinations are carried out by the competent person.

25.6(2) The employer must ensure that the following inspections are done at the times indicated:

- (a) at least once in each working day that a mine hoist is operated, an examination of the exterior of each hoist rope within the shaft to detect the presence of kinks or visible damage and to note the condition of the rope dressing;
- (b) at least once in every six months of service, an examination of the hoist ropes of
 - (i) a drum hoist, within the attachments at the drum and at the drum spout, and
 - (ii) a friction hoist, within the attachments at the shaft conveyance or counterweight in accordance with a procedure established by the employer;
- (c) at least weekly, if the test is conducted at the speed permitted under clause (3)(a), or monthly, if the test is conducted at the speed permitted under clause (3)(b), an examination of
 - (i) the shaft ropes to determine the amount of wear, corrosion and distortion of the ropes, the condition of the rope dressing, the condition of the ropes at crossover points and the number and location of broken wires, and
 - (ii) the hoist ropes of a friction hoist for rope stretch.

25.6(3) The maximum rope speed permitted during an examination of a hoist rope under subsection (2) is

- (a) 25 m per minute, for the 65 m above the conveyance and the 65 m below the sheave wheel, and 165 m per minute for the remainder of the rope; or
- (b) 90 m per minute.

25.6(4) For the purpose of an examination under subclause (2)(c)(i), the competent person doing the examination must

- (a) clean the rope at points selected by him or her and note

- (i) any reduction in the diameter or circumference of the rope, and
 - (ii) the proportion of wear in the rope;
- (b) change the starting point of the examination slightly from month to month in order to obtain more complete information on the rope; and
- (c) check any part of the rope showing any significant reduction in diameter or circumference or wear when the rope is next examined.

25.6(5) The employer must ensure that

- (a) any servicing, repairs or alterations that are required as a result of the examinations required under this section are performed; and
- (b) a record of any servicing, repairs or alterations are recorded in the machinery record book.

PART 26
OPERATION OF MINE HOISTS

Requirements: mine hoist operator

- 26.1(1)** The employer must not require or permit a worker to operate and a worker must not operate a mine hoist unless the worker
- (a) is 18 years of age or more;
 - (b) has adequate knowledge of the terminology normally used at the mine;
 - (c) has at least 150 hours of combined training and mine hoisting experience under the supervision of a certified hoist operator;
 - (d) is familiar with normal work in the shaft, including shaft inspections, cage tending, skip tending, chairing, slinging and maintenance;
 - (e) has been examined by a physician and issued a certificate to the effect that, to the best of the physician's knowledge, the worker is not subject to a mental or physical infirmity to such a degree as to interfere with the efficient discharge of the worker's duties;
 - (f) is authorized by the employer to act as a hoist operator; and
 - (g) holds a certificate or a provisional certificate issued by a mines inspector for the mine hoist.
- 26.1(2)** A physician's certificate referred to in clause (1)(e) expires after one year from the date of its issue.
- 26.1(3)** Despite holding a valid physician's certificate, a hoist operator who suffers a physical or mental disability that could adversely affect the operator's ability to operate a mine hoist must not operate or be permitted to operate a mine hoist until he or she has been re-examined by a physician and re-issued a certificate under clause (1)(e).
- 26.1(4)** A provisional certificate referred to in clause (1)(g) may be issued by a mines inspector to permit the holder to operate a hoist for a period of not more than 30 days.
- 26.1(5)** Before issuing a certificate that authorizes a worker to operate a mine hoist, the mines inspector must examine the worker's competency to operate the hoist.

Hours of hoist operator

- 26.2(1)** The employer must not require or permit a worker to operate, either on the surface or underground, a mine hoist by means of which persons or material are hoisted or lowered in a shaft for more than 12 hours in any consecutive 24-hour period, except that
- (a) if a regular hoist operator is absent from duty and no competent substitute is available, an operator may for the duration of the absence be permitted to work for an additional period, not exceeding 1 hour in any consecutive 24-hour period; or
 - (b) if there is an interval between successive operating shifts at a mine, a hoist operator may be permitted to work such extra time as is necessary for hoisting or lowering the workers employed on the hoist operator's shift.
- 26.2(2)** For the purpose of subsection (1), if a worker has been employed on duties other than those of a hoist operator at the mine within the preceding 24-hour period, the time the worker spent doing those other duties is deemed to be time the worker spent operating the mine hoist.

Duties of hoist operator

- 26.3** Except when a mine hoist is operating under automatic control, a mine hoist operator must
- (a) remain at the mine hoist controls at all times the mine hoist is in motion; and
 - (b) before leaving the hoist room,
 - (i) set the hoist brakes,
 - (ii) engage the hoist clutches or cause the conveyance to be blocked on any unclutched drum, and
 - (iii) isolate the hoist from its power supply.

Further duties of hoist operator

- 26.4(1)** In accordance with the procedure established under subsection 28.4(1), a hoist operator must
- (a) after the following, have the empty conveyance make one complete trip up and down the working portion of the shaft before again hoisting a person:
 - (i) a stoppage of hoisting for repair,
 - (ii) a stoppage for any other purpose that exceeds two hours duration,
 - (iii) a blast initiated from surface;

- (b) at least once in each operating day, test the effective functioning of the overwind and underwind devices;
- (c) at the beginning of each operating shift and before a conveyance is raised or lowered, ascertain that the brake or brakes are in proper condition to hold the loads suspended on the corresponding drum or drums by testing the brakes of the drums against the normal starting current; and
- (d) when the mine hoist is fitted with a friction clutch, at the beginning of each operating shift, test the holding power of the clutch before releasing the brake of the corresponding drum while the brake of the other drum is being kept off and power is applied as described in clause (c).

26.4(2) The employer must ensure that a hoist operator complies with subsection (1).

Testing before unclutching

26.5 A mine hoist operator must not unclutch a drum of the hoist until the test referred to in clause 26.4(1)(c) has been made.

Unclutched drums

26.6 In respect of a drum hoist, a person must not cause or permit

- (a) an unclutched drum to be used for lowering a load;
- (b) a person to be on or in a shaft conveyance suspended from an unclutched drum unless the conveyance is secured in position by chairing or blocking; or
- (c) the drum to be unclutched before application of the brakes to both drums.

Brakes

26.7(1) Except as permitted under subsections (2) and (3), the employer must ensure that a mine hoist used for a shaft conveyance that may have people in or on it is equipped with more than one brake and that each brake is capable of safely stopping and holding the conveyance.

26.7(2) In a shaft inspection or shaft maintenance operation, or when changing balance in a shaft sinking operation, persons may be in or on a shaft conveyance attached to the fixed or clutched in drum.

26.7(3) In case of emergency, the employer may authorize the hoisting of persons while the mine hoist is equipped with one brake, but the employer must enter any such authorization and the reasons for it in the hoist operator's log book.

Cancellation of certificate

- 26.8(1)** A mines inspector may cancel a certificate issued under clause 26.1(1)(g) if the operator contravenes a provision of this regulation or the Act in the execution of his or her duties. The mines inspector must inform the employer, and the employer must inform the committee, of the cancellation.
- 26.8(2)** If a hoist operator does not operate the mine hoist or hoists that he or she is certified to operate for more than a cumulative total of 80 hours in any 12-month period, the employer must
- (a) notify a mines inspector; and
 - (b) not allow the worker to operate the mine hoist or hoists until he or she is re-certified under clauses 26.1(1)(e) and (g) and meets the other requirements of that subsection.

Reconsideration

- 26.9(1)** A hoist operator who holds a certificate that has been cancelled under subsection 26.8(1) may request the director to reconsider the cancellation by filing a request with the director within 14 days after receiving notice that his or her certificate has been cancelled.
- 26.9(2)** A request for a reconsideration must be in writing and must set out the grounds upon which the request is made.
- 26.9(3)** The director must decide the request for reconsideration and may
- (a) confirm or rescind the cancellation;
 - (b) increase or decrease the length of the period before a certificate may be re-issued to the person; or
 - (c) set out terms and conditions to be fulfilled by the person before the person is to be considered eligible to be re-issued a certificate.
- 26.9(4)** The director may hold a hearing when reconsidering a cancellation but is not required to do so.
- 26.9(5)** For a hearing, the director may establish rules of practice and procedure and is not bound by the rules of evidence that apply to judicial proceedings.

PART 27
HOISTING SIGNALS AND COMMUNICATIONS

Signalling system for hoisting in shaft

- 27.1(1)** The employer must provide in each hoisting shaft a suitable audible means for directing the movement of a shaft conveyance that
- (a) permits signals to be exchanged between the hoist operator and the worker in charge of the conveyance;
 - (b) has a separate system in each shaft compartment;
 - (c) emits a sound in a hoisting system of the mine hoist and conveyances that is readily distinguishable from the sound emitted by any other similar system in the same shaft;
 - (d) is arranged so that the hoist operator returns the same signal back to the person initiating that signal; and
 - (e) has a signalling device provided for the conveyance operator, located
 - (i) at each designated stopping place, and
 - (ii) within easy reach of the conveyance operator while the operator is within the conveyance.
- 27.1(2)** During shaft sinking, clause (1)(d) does not apply within the portion of the shaft being developed.
- 27.1(3)** Before a signalling system is installed, the employer must ensure that the plans for the mine hoist signalling system are
- (a) developed in consultation with the committee; and
 - (b) provided to a mines inspector.

Shaft conveyance call system

- 27.2** The employer must ensure that the signalling system employed to call for the shaft conveyance
- (a) has its controls located adjacent to the shaft but not attached to the shaft timbers; and
 - (b) is not audible in or visible from the hoist room.

Voice communication system

- 27.3(1)** Except during shaft sinking operations, the employer must install a system to provide voice communication between an attended place on surface and
- (a) the collar of each shaft;

- (b) each landing station in use in a shaft;
- (c) each shaft hoist room;
- (d) each underground refuge station; and
- (e) all other places that might be necessary to provide emergency communications.

27.3(2) The employer must

- (a) develop and implement safe work procedures for the use of the voice communication system that is installed;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

27.3(3) The voice communication system must

- (a) not be used for conveyance movements unless there is a failure in the primary signalling system; and
- (b) have a dedicated channel.

Code of signals

27.4(1) In this section and sections 27.5 and 27.6, “**bell**” includes a horn, buzzer or other similar audible signal.

27.4(2) The employer must

- (a) develop and implement safe work procedures for signalling between the hoist operator and the conveyance operator in accordance with this section;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

27.4(3) The following code of signals must be used at each mine:

- (a) 1 bell – stop immediately – if in motion (executive signal);
- (b) 1 bell – hoist (executive signal);
- (c) 2 bells – lower (executive signal);
- (d) 3 bells – persons about to ascend or descend (cautionary signal):
 - (i) the 3-bell signal must be given by the cagetender before a person is permitted to enter the shaft conveyance, and the cagetender alone or with other persons already on the conveyance, are to be moved to another level,
 - (ii) the 3-bell signal must be given by the mine hoist operator when the hoist locked,

- (iii) the 3-bell signal must be given by the hoist operator before the cagetender leaves or permits other persons to leave the conveyance at any level or other designated stopping place;
- (e) 4 bells – blasting signal (special cautionary signal):
 - (i) the hoist operator must answer a 4-bell signal by raising the shaft conveyance approximately 1 m and lowering it back slowly,
 - (ii) following a 4-bell signal, only a 1-bell signal shall be required to signal for hoisting persons away from a blast, and the hoist operator must remain at the controls until the act of hoisting is completed;
- (f) 5 bells – release signal (executive signal):
 - (i) the hoist operator must move the shaft conveyance from the level at which the signal was given and may perform any movement or series of movements involving the conveyance before bringing the conveyance to rest at a place in the shaft that is not a recognized stopping place,
 - (ii) when a return bell signal system is installed the hoist operator must return the signal before moving the conveyance,
 - (iii) the person giving the release must remain to guard the conveyance until it is moved from the place from which the release signal was given;
- (g) 9 bells – danger signal (special cautionary signal):
 - (i) to be given only in case of fire, serious injury or other emergency,
 - (ii) the signal for the level at which the danger exists must be given following the giving of a danger signal,
 - (iii) the danger signal must not be given on the mine hoist signal system unless the danger involves the safety of the hoisting system;
- (h) 1 bell followed by 2 bells – chairing the conveyance;
- (i) 3 bells followed by 3 bells followed by 1 bell – hoist slowly;
- (j) 3 bells followed by 3 bells followed by 2 bells – lower slowly.

- 27.4(4)** In addition to the code of signals required under subsection (3), the employer must establish
- (a) signals to designate all regular landings and working levels; and
 - (b) special signals to designate all special hoisting movements.
- 27.4(5)** All signals referred to in subsection (4) must be
- (a) readily distinguishable;
 - (b) developed in consultation with the committee; and
 - (c) provided to a mines inspector.
- 27.4(6)** A copy of the code of signals referred to in subsections (3) and (4) must be printed and posted at each hoist, in every hoist room, at the shaft collar and at every working level or designated landing place in every shaft.
- 27.4(7)** The following method and order must be observed in giving signals:
- (a) the strokes on a bell must be made at regular intervals so as to be clear and distinct;
 - (b) signals must be given and returned in the following order:
 - (i) 1st, cautionary signal,
 - (ii) 2nd, destination signal, and
 - (iii) 3rd, executive signal;
 - (c) except during shaft sinking, the hoist operator must return each signal received.

Signals when conveyance stops

- 27.5(1)** When persons are riding in a conveyance and it is brought to rest at the collar, a working level or a designated stopping place and the brakes have been set, the hoist operator must give the 3-bell mine hoist locked signal before the door of the conveyance is opened.
- 27.5(2)** A cagetender must not answer the 3-bell signal given in the circumstances described in subsection (1).
- 27.5(3)** After persons leave the shaft conveyance, the cagetender must not re-enter the conveyance or permit other persons to enter it until a new sequence of signals has been initiated by giving the 3-bell cautionary signal and receipt of the 3-bell return signal from the hoist operator.

Action on 3-bell signal

27.6(1) On receipt of a 3-bell signal, a hoist operator must

- (a) ensure that the mine hoist brake or brakes are set;
- (b) where a return bell signal system is installed, return the 3-bell signal to permit the entry of persons to the conveyance;
- (c) remain at the mine hoist controls until the operator receives the signal designating the movement required and completes that movement; and
- (d) not release the brakes until a further proper sequence of signals is received.

27.6(2) When hoisting persons, the hoist operator must

- (a) upon receipt of the proper sequence of signals, not move the shaft conveyance within five seconds of returning the signal sequence, except that if an "on-cage" signalling system is employed, the conveyance may be moved after allowing a distinct pause following the receipt and return of a proper sequence of signals; and
- (b) if unable to act within one minute after the return of a correct signal sequence, not move the conveyance until a complete signal is again received.

27.6(3) In the event of an inadvertent stop at a point in the shaft other than a station from which signals can be given, the hoist operator may move the shaft conveyance only

- (a) on receipt of a signal from the cagetender; or
- (b) on instructions to do so from the person in charge at the mine.

Authority to give signals or operate mine hoist

27.7(1) Subject to subsections (3) and (4), unless authorized to do so, a person must not

- (a) give any signal on the mine hoist signal system;
- (b) interfere with the mine hoist signal system; or
- (c) operate or interfere with any equipment controlling the movement of the mine hoist.

27.7(2) Subject to subsection (3) and (4), the person authorized to give the hoisting signal must be at the same level as the conveyance.

- 27.7(3)** If the shaft conveyance has been released and is not at the same level as a person authorized to give the hoisting signal, the mine hoist operator must be contacted by that authorized person by means other than the hoist signal system before moving the shaft conveyance to the same level as the authorized person.
- 27.7(4)** In case of an emergency endangering the mine hoisting plant any person may give the danger signal on the mine hoist signal system.

Emergency signal line

27.8 The employer must

- (a) install a line or other system in each hoisting compartment of each shaft to permit the communication of signals from any portion of the shaft; and
- (b) provide the design of the line or other system to a mines inspector.

Communication with hoist operator

- 27.9(1)** A person must not talk to the hoist operator while the mine hoist is in motion and the employer must ensure that a sign is posted to that effect, plainly visible to anyone approaching the mine hoist controls.
- 27.9(2)** Subsection (1) does not apply in an emergency or by prearrangement with the hoist operator before testing, maintenance or adjustment of the mine hoist.
- 27.9(3)** A communication system to communicate with a hoist operator using radio frequencies may be installed, provided that it is tested and complies with The Institute of Makers of Explosives, Safety Library Publication No. 20, titled, *Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electrical Detonators*.

PART 28
MINE HOIST – EXAMINATION AND RECORDS

Duties of hoist operator

- 28.1(1)** For each shift, a hoist operator must record in the hoist operator's log book
- (a) a report of the working condition of the mine hoist, including the brakes, clutches, interlocking devices between the brake and clutch, depth indicators and all other devices pertaining to the safe operation of the mine hoist;
 - (b) a report of the working condition of the signalling apparatus and a notation of any signal received by the hoist operator the accuracy of which the hoist operator has questioned;
 - (c) an entry of any special instruction issued respecting the safety of persons, signed by the person issuing the instructions and the hoist operator;
 - (d) a report of the working condition and a record of any test performed upon the operation of all overwind and underwind devices as required under clause 26.4(1)(b);
 - (e) a report of any abnormal circumstance in connection with the operation of the mine hoist or attachments to it and any abnormal condition that comes to the hoist operator's knowledge in connection with hoisting operations in the shaft;
 - (f) a report of the tests and trial trips required under sections 24.8 and 26.4; and
 - (g) an entry to notify the hoist operator on a succeeding period of duty of any special circumstance or matter affecting the continued operation of the mine hoist or the safety of persons in the shaft.
- 28.1(2)** A hoist operator must ensure that an entry made under clause (1)(g) is countersigned by the hoist operator assuming duty for the succeeding period.
- 28.1(3)** When the required daily tests of the overwind and underwind devices referred to in clause (1)(d) have been conducted by a hoist operator on another shift, the hoist operator assuming duty must examine the entry in the log book of the hoist operator who performed the tests and so indicate by signing that operator's log book.

Log book entries by hoist operator

- 28.2(1)** A hoist operator must make and sign the entries that are required under subsection 28.1 for the hoist operator's period of duty on each mine hoist and must record the time and duration of each period of duty.
- 28.2(2)** On each day that the mine hoist is operated, the supervisor in charge of the mine hoisting plant must read and initial the entries made under section 28.1.
- 28.2(3)** Before any non-routine operations begin, written instructions respecting the operation must be
- (a) discussed with the hoist operator by the person notifying the hoist operator;
 - (b) entered in the log book;
 - (c) signed by the person notifying the hoist operator; and
 - (d) countersigned by the hoist operator.

Safe work procedures

- 28.3** The employer must
- (a) develop and implement safe work procedure for instructing the hoist operator on non-routine operations;
 - (b) train workers in the safe work procedures; and
 - (c) ensure that workers comply with the safe work procedures.

Examination of mechanical parts

- 28.4(1)** The employer must document in writing and implement a procedure, consistent with the requirements of this regulation and developed in consultation with the committee, for the systematic examination, testing and maintenance of a mine hoisting plant.
- 28.4(2)** The procedure implemented under subsection(1) must set out
- (a) the frequency of each examination and test;
 - (b) the method to be used in each examination and test; and
 - (c) the criteria for assessing the results of each examination and test.
- 28.4(3)** The employer must provide a copy of the procedure implemented under subsection (1) to a mines inspector.

- 28.4(4)** Without limiting the procedures implemented under subsection (1), if a mine hoisting plant is in use at a mine, the employer must designate a competent worker to examine, at least once each week,
- (a) the sheave wheels;
 - (b) the attachments of the hoisting rope to the drums and to the counterweights, buckets, cages or skips;
 - (c) the brakes;
 - (d) interlocks;
 - (e) the depth indicators;
 - (f) the buckets, cages, skips and counterweights;
 - (g) the external parts of the mine hoist;
 - (h) the signalling equipment;
 - (i) the shaft dumping and loading arrangements;
 - (j) the sinking doors and blasting sets and any attachments thereto; and
 - (k) the mine hoist motor and control apparatus, and electric safety devices.

28.4(5) The worker designated by the employer under subsection (4) must make the examinations required under that subsection and must record his or her report of the examinations in the machinery record book.

Defects to be reported immediately

28.5(1) A person who discovers or becomes aware of a defect or a weakness that has developed or is developing in any part of a mine hoisting plant that could endanger the safety of persons must immediately report it to the hoist operator and the person's supervisor.

28.5(2) Except for remedial measures, until the weakness or defect referred to in subsection (1) is remedied,

- (a) the mine hoist operator must not operate the hoist or conveyance; and
- (b) the employer must not permit the mine hoist to be operated.

Adjustment of mine hoist

28.6(1) The employer must ensure that no person repairs or adjusts any part, device or control of a mine hoist unless the person is competent and is authorized by a supervisor in charge of the hoist.

- 28.6(2)** The employer must ensure that no person modifies any part, device or control of a mine hoist unless the person is competent to do so.
- 28.6(3)** The employer must ensure that any modification of any part, device or control of a mine hoist is authorized by the manufacturer or a professional engineer.

Machinery record book

- 28.7(1)** The employer must ensure that there is a machinery record book for each mine hoist, and that an entry is recorded in the machinery record book of
- (a) every examination and test of the mine hoist that, as specified in the book, is required to be done;
 - (b) any failure of or incident involving the mine hoist, rope, conveyance or shaft; and
 - (c) any correction of or repairs to, the mine hoist, mine hoist controls, signalling systems, hoist rope, shaft conveyance or any other part of the hoisting, dumping or loading equipment,
- 28.7(2)** An entry in the record book maintained under subsection (1) must be
- (a) signed by the worker who makes an entry; and
 - (b) read and signed by the supervisor of the worker.
- 28.7(3)** The supervisor in charge of the mine hoist must
- (a) at least once in each week, review the entries made in the machinery record book during the preceding week;
 - (b) ascertain whether a required examination has been made and that all required work is being or has been carried out; and
 - (c) certify in the machinery record book that he or she has complied with clauses (a) and (b).

PART 29 MINE HOIST REQUIREMENTS

Head and deflection sheaves

- 29.1(1)** The employer at a mine where a mine hoist is installed must ensure that each head sheave and deflection sheave installed at a mine shaft
- (a) bears a serial number and the date of its manufacture;
 - (b) is certified by a professional engineer as to
 - (i) its maximum rated load,
 - (ii) the diameter of rope for which it was designed,
 - (iii) the breaking strength of the rope for which it was designed, and
 - (iv) the maximum amount of groove wear that is permitted;
 - (c) is made of materials that can safely withstand the effect of ambient temperatures found within the mine in which it is used;
 - (d) has a diameter that is sufficient to provide the same ratio of sheave to rope diameter as is prescribed for the drum to rope diameter in section 29.4;
 - (e) is grooved and maintained to fit the rope being used;
 - (f) is not loaded in excess of the maximum rated load stated in the certificate referred to in clause (b); and
 - (g) is equipped with a wobble indicating switch.
- 29.1(2)** The requirements of clauses (1)(a) and (b) do not apply to sheaves acquired before February 27, 1987.

Installation and loading

- 29.2(1)** Before the installation of a mine hoist, the employer must provide the following to a mines inspector and to the committee:
- (a) the specifications of the mine hoist and mine hoisting plant;
 - (b) drawings that show the general arrangement of the mine hoist, headsheaves, deflection sheaves and headframe, including overwind clearances.
- 29.2(2)** The employer must ensure that each mine hoist is
- (a) certified in writing by its manufacturer or a professional engineer as to
 - (i) the maximum rope pull,

- (ii) the maximum suspended load, and
 - (iii) in the case of a friction mine hoist, the maximum unbalanced load; and
- (b) not loaded in excess of the rated capacity certified under clause (a).

29.2(3) The employer must ensure that each mine hoist installed is altered only in accordance with specifications certified by the manufacturer or a professional engineer.

Proving tests

29.3(1) Before a mine hoist is put into service and at least every 5 years after that, the employer must ensure that a competent person

- (a) by a non-destructive method, examines for defects, weaknesses or developing weaknesses all
 - (i) mine hoist drums, shafts and brake components,
 - (ii) sheave wheel shafts,
 - (iii) conveyance and counterweight attachments, pins and drawbars; and
- (b) conducts tests to prove the proper working of all safety devices and controls in the mine hoisting system.

29.3(2) The employer must record and keep on file a report of all tests and examinations made under this section.

Mine hoist drums

29.4(1) The employer must ensure that each drum of a mine hoist

- (a) if conical, has grooving that prevents the rope from slipping off the drum;
- (b) has flanges of sufficient height to contain all the rope, as permitted by section 24.9, and which are strong enough to withstand any loading by the rope; and
- (c) where multiple layer winding is used, has an arrangement to cause the rope to rise evenly from one layer to another and to wind properly without cutting down through a lower layer.

29.4(2) The employer must ensure that each drum of a mine hoist

- (a) has grooving that properly fits the rope used; and
- (b) is of a diameter not less than
 - (i) 100 times the diameter of a mine hoist rope of locked-coil construction,

- (ii) 80 times the diameter of a mine hoist rope of stranded construction, or
- (iii) 60 times the diameter of the mine hoist rope of stranded construction, when the diameter of that rope is not greater than 25 mm.

29.4(3) Despite subsection (2), during shaft sinking, preliminary development or an operation not exceeding 12 months, a mine hoist may be used with a drum that

- (a) is not grooved; and
- (b) has a diameter not less than
 - (i) 60 times the diameter of the mine hoist rope in use, when the diameter of the rope is greater than 25 mm, or
 - (ii) 48 times the diameter of the mine hoist rope in use, when the diameter of the rope is not greater than 25 mm.

Location of mine hoist and head sheaves

29.5 The employer must ensure that the mine hoist and the head sheaves are so located in relation to one another as to permit the proper winding of the rope on the mine hoist drum.

Locking devices

29.6 The employer must ensure that any bolts or other fittings of the drums, brakes and clutches that could be a source of danger if they are loosened are made secure by means of locking devices.

Brakes

29.7(1) The employer must ensure that a mine hoist is equipped with a mechanical brake or brakes that

- (a) can be applied directly to each drum;
- (b) are designed, adjusted and maintained so as to safely stop and hold the conveyance under normal conditions of loading, direction of travel and speed;
- (c) are arranged so that they can be tested separately;
- (d) are maintained in such condition that no part of the brake mechanism can come to the limit of travel before the full power of the brake or brakes is applied;
- (e) are equipped with a device that
 - (i) gives positive indication of brake tread wear or slack linkage such that adjustment is necessary, and

- (ii) in the case of electric mine hoist, prevents starting of the mine hoist in the event of a slack brake;
- (f) are applied automatically when
 - (i) the mine hoist safety circuit is interrupted, or
 - (ii) the pressure in a hydraulic or pneumatic system for applying brakes drops below the designed pressure; and
- (g) are applied by control levers that are pulled unless brake and power control levers are common.

29.7(2) The employer must ensure that a mine hoist used for hoisting persons

- (a) is equipped with more than one independent means of braking, each of which can stop and hold the drum when the shaft conveyance is operating at maximum load; and
- (b) has the brakes arranged to decelerate the mine hoist at a rate greater than 1.5 m per second and less than 3.7 m per second when braking is initiated by an interrupted safety circuit and the mine hoist is operating at the normal speed for hoisting persons.

Mine hoist with clutched drum

29.8 The employer must ensure that on each mine hoist fitted with a clutched drum,

- (a) the operating gear of the clutch of the drum is provided with a locking gear to prevent the inadvertent withdrawal or insertion of the clutch;
- (b) the brake and clutch operating devices are so installed that it is not possible to
 - (i) unclutch a drum unless the brake on the drum is fully applied, or
 - (ii) release the brake until the clutch on the drum is fully engaged; and
- (c) on a mine hoist installed after March 2, 1995 and on which only one drum is clutched and a cage-counterweight system is employed, the cage is attached to the fixed drum.

Indicator

29.9 The employer must ensure that a mine hoist is provided with depth indicators that continuously, accurately and clearly show to the mine hoist operator the position

- (a) of the shaft conveyance and counterweight;
- (b) at which any reduction in speed is required by the employer;

- (c) at which the overwind, underwind and track limit devices are set to operate;
- (d) beyond which the conveyance must not be moved above or below the limits referred to in clause (c);
- (e) of any collar doors, dump doors and crosshead landing chairs; and
- (f) of any intermediate shaft obstructions.

PART 30
MINE HOIST – CONTROL AND SAFETY DEVICES

Mine hoist safety devices

- 30.1** The employer must provide and maintain on a mine hoist
- (a) if the shaft at which the hoist operates exceeds 90 m in depth below the collar, a device that
 - (i) gives audible warning to the hoist operator of the arrival of the conveyance at points in the shaft, the distances of which from the top and bottom landing places are not less than the equivalent of three revolutions of the drum of the hoist, and
 - (ii) gives audible warning only when the conveyance is approaching the top or bottom landing, not leaving them;
 - (b) if the hoist is electrically powered, an ammeter or equivalent device which indicates at all times the load on the hoist drive motor;
 - (c) a manually operated emergency switch that
 - (i) is installed within easy reach of the hoist operator when at the controls, and
 - (ii) permits the hoist operator to stop the hoist in an emergency;
 - (d) a device that in the event of loss of drive to the safety devices that,
 - (i) in the case of a manually-operated hoist, warns the operator of the loss of drive, or
 - (ii) in the case of an automatic hoist, brings the hoist to rest; and
 - (e) a device that indicates the speed of the conveyance.

Mine hoist safety control devices

- 30.2(1)** The employer must ensure that a mine hoist is equipped with the following safety devices to initiate automatic deceleration and bring the hoist safely to rest under all conditions of permissible load, direction of travel or speed before the conveyance, counterweight or their rope attachments can reach a permanent obstruction:
- (a) overwind and underwind devices operated at definite points within the upper and lower limits of regular travel of the conveyance or counterweight;
 - (b) a track limit switch in each hoisting compartment activated directly by the conveyance or counterweight;

- (c) overspeed devices that operate when the maximum authorized rope speed is exceeded by 12%;
- (d) retardation devices that enforce a gradual reduction in speed as the conveyance or counterweight approaches the regular end of travel.

30.2(2) An underwind device referred to in clause (1)(a) is not required in shaft sinking where a controller cam is profiled so as to provide enforced slow down to creep speed when approaching a check point near the shaft bottom.

Intermediate obstructions

30.3 Where an ore or waste dump, loading box, collar door or spill door is installed in a shaft or winze at points other than the upper and lower limits of normal travel of a conveyance, and where a part of the dump, box or door interferes with the free passage of a conveyance, the employer must ensure that

- (a) travel-limiting and enforced slow-down devices are installed as required under section 30.2;
- (b) positive locking devices for maintaining such obstructions out of the operating position in the shaft or winze are installed;
- (c) the devices required under clause (a) are automatically activated upon the obstruction moving from its fully open-locked position;
- (d) dual position indicating lights are installed which
 - (i) show a red light when an obstruction to the free passage of the conveyance is caused,
 - (ii) show a green light when the door or doors are in the fully open position to allow the free passage of the conveyance,
 - (iii) are arranged so that the green light does not show until each part of a door or obstruction reaches its full travel to the open position,
 - (iv) have the light switches located so that they are activated directly by the door or obstruction when it reaches its full travel to the open position, and
 - (v) have the circuit supplied from a source of power independent of the mine hoist circuit; and
- (e) before installation, plans and procedures for the use of the dump, box or door are provided to a mines inspector and the committee.

Skips for hoisting persons

30.4(1) The employer must ensure that whenever persons are being hoisted in skips or in the skips of skip-cage assemblies a device is installed and operated that

- (a) prevents the skip being hoisted to the dumping position;
- (b) provides an audible or visual signal to the persons about to enter the skip that the control devices for the mine hoist are set in operation;
- (c) prevents travel in excess of 2.5 m per second; and
- (d) has the circuit arranged so that the failure of a part cannot render the device inoperative.

30.4(2) Workers may be hoisted for shaft inspection and maintenance and persons may be hoisted in an emergency on a mine hoist that does not have the device referred to in subsection (1).

Electric mine hoists

30.5(1) The employer must ensure that each electrically operated mine hoist is provided with protective devices and protective circuits that

- (a) when actuated, initiate automatic control of the power circuits in conjunction with automatic application of the brakes to bring the hoist and conveyance safely to rest under all conditions of permissible load, direction of travel and speed;
- (b) are so designed so that the failure of a part initiates emergency braking action to bring the hoist safely to rest;
- (c) when installed and maintained, provide positive protection at all times; and
- (d) are designed to operate at a potential not exceeding 250 volts.

30.5(2) The employer must ensure that no person repairs or adjusts any of the protective devices and circuits referred to in subsection (1) unless the person is

- (a) competent to do so; and
- (b) authorized by the supervisor in charge of the mine hoist.

30.5(3) The employer must ensure that no person modifies any of the protective devices and circuits referred to in subsection (1) unless competent to do so.

30.5(4) The employer must ensure that any modification of any of the protective devices and circuits referred to in subsection (1) is authorized by

- (a) the manufacturer; or
- (b) a professional engineer.

30.5(5) The employer must ensure that an electrically operated mine hoist has

- (a) low voltage protective devices on the hoist control circuits to effect the safe operation of the mine hoisting plant;
- (b) protective devices on the hoist power circuit which operate when a load on the hoist motors is of a magnitude and duration that exceeds an operating overload;
- (c) short circuit protective devices on the hoist power circuit; and
- (d) a manually operated backout device which prevents the release of the brake or brakes holding a conveyance or counterbalance when in an overwound or underwound position until sufficient drive motor current is developed to ensure movement of the conveyance or counterbalances in the correct direction.

Friction hoists

30.6 In addition to the other requirements for electric mine hoists, the employer must ensure that in a friction hoist installation,

- (a) the hoist has a device that
 - (i) initiates emergency stopping in the event of a slip between the hoist rope or ropes and the hoist drum in excess of a predetermined amount,
 - (ii) synchronizes the position of the shaft conveyance with safety devices driven from the drum,
 - (iii) initiates emergency stopping in the event of abnormal movement of the tail rope loops, and
 - (iv) initiates emergency stopping in the event of abnormal tread wear; and
- (b) the shaft is equipped with tapered guides or other suitable arresting devices arranged so as to brake and stop an overwound or underwound conveyance when entering the end zone at the maximum speed permitted by the hoist controls.

Automatic mine hoist controls

30.7(1) If a mine hoist is operated by means of automatic controls, the employer must ensure that

- (a) there is a device for the selection of manual, semi-automatic or automatic control located where it is readily accessible to the manual controls;
- (b) a system is installed that, in an emergency stop during automatic hoisting operations, sounds an alarm at a location where it can be heard by the hoist operator;
- (c) when designed to be operated from control stations located at shaft levels and within a shaft conveyance, the switch for affecting the change-over of the control mode between that at the shaft levels and at the shaft conveyance is effective only at the shaft level at which the shaft conveyance is stopped;
- (d) devices installed on the levels for the purpose of selecting the conveyance destination are operable only at the level at which the conveyance is stopped;
- (e) subject to clause (f), when hoisting persons, a device installed for the purpose of initiating motion
 - (i) operates only when the shaft gate at the level at which the conveyance is stopped is in the closed position,
 - (ii) is located so that it can be operated from inside the conveyance stopped at the level, and
 - (iii) causes a delay of five seconds between the operation of the device and the actual motion;
- (f) any device for jogging the conveyance
 - (i) is located so that it cannot be operated from inside the conveyance,
 - (ii) can be activated while the shaft gate is open, and
 - (iii) can be activated without any delay;
- (g) the operating procedures
 - (i) are in writing,
 - (ii) are developed in consultation with the committee, and
 - (iii) are provided to a mines inspector;
- (h) in the case of a mine hoist used for hoisting persons, a hoist operator is readily available whenever persons are underground or being hoisted; and

- (i) the device referred to in clause (a) is operated only by a hoist operator.

30.7(2) At the time when a mine hoist is put into operation by automatic control and after that, at least once every 24 hours while the hoist is being operated by automatic control, the employer must ensure that the hoist operator

- (a) tests the brakes; and
- (b) remains at the controls long enough to observe that the hoist is functioning properly under the automatic control.

30.7(3) If a mine hoist operated by automatic control makes an emergency stop, the employer must ensure that the hoist operator

- (a) takes action appropriate to the emergency;
- (b) switches the hoist to manual control until
 - (i) the reason for the emergency stop has been determined,
 - (ii) any necessary repairs have been made, and
 - (iii) it has been determined that no damage has occurred; and
- (c) manually operates the hoist through a minimum of one complete cycle before it is put back on automatic control.

PART 31
REPEAL AND COMING INTO FORCE

Repeal

31.1 The *Operation of Mines Regulation*, Manitoba Regulation 228/94, is repealed.

Coming into force

31.2 This regulation comes into force on April 1, 2012.

