Reprint
as at 4 April 2016

Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013

(SR 2013/483)

Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013: revoked, on 4 April 2016, by regulation 232 of the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016 (LI 2016/17).

Jerry Mateparae, Governor-General

Order in Council

At Wellington this 9th day of December 2013

Present:
The Right Hon John Key presiding in Council

Pursuant to section 21 of the Health and Safety in Employment Act 1992, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and in accordance with a recommendation of the Minister of Labour, makes the following regulations.

Contents

Note

Changes authorised by subpart 2 of Part 2 of the Legislation Act 2012 have been made in this official reprint.

Note 4 at the end of this reprint provides a list of the amendments incorporated.

These regulations are administered by the Ministry of Business, Innovation, and Employment.

Regulations

1 Title

These regulations are the Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013.

2 Commencement

These regulations come into force on 16 December 2013.

3 Interpretation

(1) In these regulations, unless the context otherwise requires,—

Act means the Health and Safety in Employment Act 1992

acting manager means the person designated for the purpose referred to in regulation 23

alluvial mine operator means a person who controls an alluvial mining operation and, in relation to a particular alluvial mining operation, means the person who controls that operation

alluvial mine worker means a person who works in an alluvial mining operation, either as an employee or as a self-employed person

alluvial mining operation has the meaning given to it in section 19L of the Act

Board has the meaning given to it in section 2(1) of the Act

borehole—

(a) means a hole of any diameter that has been bored or drilled for any purpose (including exploration, quality control, geological investigation, or

geotechnical investigation in the mining operation) either from the surface or from an underground location; but

(b) does not include a drill hole that has been drilled for the purpose of blasting operations

brushing means removing a layer of material from the floor, roof, or side of a heading or cut-through

certificate of competence means a certificate issued by the Board under regulation 41

changeover station means a facility located within the underground parts of an underground mining operation or tunnelling operation that allows a mine worker to safely—

(a) change or recharge his or her breathing apparatus; or

(b) replace a self-contained self-rescuer

coal has the meaning given to it in section 19L of the Act

coal mining operation means any mining operation associated with the exploration or extraction of coal

competent person means a person who—

(a) has the relevant knowledge, experience, and skill to carry out a task required or permitted by these regulations to be carried out by a competent person; and

(b) has—

(i) a relevant qualification evidencing the person's possession of that knowledge, experience, and skill; or

(ii) if the person is an employee, a certificate issued by the person's employer evidencing the person's possession of that knowledge, experience, and skill

current, in relation to a certificate of competence, means a certificate of competence that has been issued under regulation 41 and has not expired or been cancelled or suspended by the Board

electrical plant—

(a) means plant that utilises or is powered by electricity; and

(b) includes appliances and fittings

electrical system—

(a) means an electrical system in which all the electrical plant is, or is capable of being, electrically connected to a common source of electrical energy; and

(b) includes the source and the plant

emplacement area means an area where the overburden or tailings of a mining operation are deposited within or beyond the excavated areas of the mining operation

ERZ0 means—

(a) an underground coal mining operation, or any part of it, where the general body concentration of methane is known to be, or is identified by a risk assessment as likely to be, greater than 1.25%:

(b) any part of an underground coal mining operation that is an ERZ1 or a NERZ if the general body concentration of methane in that part of the mining operation becomes greater than 1.25%:

(c) an area of an underground coal mining operation that is classified by the mine operator as an ERZ0 under regulation 190

ERZ1—

(a) means—

(i) an underground coal mining operation, or any part of it, where the general body concentration of methane is known to be, or is identified by a risk assessment as likely to be, greater than 0.25% but not more than 1.25%; or

(ii) an area of an underground coal mining operation that is classified by the mine operator as an ERZ1 under regulation 190; and

(b) includes—

(i) a workplace where coal or other material is being mined (except where the work is undertaken in a shaft or roadway driven from the surface in material other than coal or between seams predominantly driven in material other than coal) other than by brushing in an outbye location:

(ii) a place where adequate standards of ventilation in relation to methane cannot be assured taking into account abnormal circumstances in the mining operation:

(iii) a place where connections, or repairs, to a methane drainage pipeline are being carried out:

(iv) a place where holes are being drilled underground in the coal seam or adjacent strata for exploration or seam gas drainage:

(v) a place, in a panel, other than a longwall panel that is being extracted, inbye the panel's last completed cut-through:

(vi) a goaf area:

(vii) each place on the return air side of any of the places in subparagraphs (i) to (vi), unless the place is an ERZ0:

(viii) any development heading

explosion protected means, in respect of any plant or installation, that the plant or installation is, or includes features that are, designed, manufactured, and maintained to prevent the plant or installation acting as an ignition source when exposed to an explosive atmosphere

explosion risk zone means an ERZ0, an ERZ1, or a NERZ

explosive means a substance that is capable of sudden expansion owing to a release of internal energy; and includes the capability to generate—

(a) deflagration; or

(b) pyrotechnic effects,—

and **explosion** has a corresponding meaning

explosive atmosphere means a mixture with air of flammable substances in the form of dusts, fibres, gases, mists, or vapours that, if ignited, may lead to an explosion

fresh air has the meaning given to it in regulation 4

health and safety management system means the system developed under Part 2 and includes any principal hazard management plan or principal control plan

highwall mining means mining conducted by remote-controlled equipment that drives an excavation from the surface of an opencast mining operation into a coal seam underground

hot work means welding, soldering, heating, cutting, grinding, or vulcanising in which the surface temperature of the work or a tool for the work is likely to exceed 150°C

industry health and safety representative has the meaning given to it in section 19L of the Act

industry training organisation means a body corporate for the time being recognised under section 5 or 8(1) of the Industry Training Act 1992 in respect of the extractives industry

licensed cadastral surveyor has the meaning given to it in section 4 of the Cadastral Survey Act 2002

live electrical work—

(a) means any work carried out on electrical plant in an ERZ0 or ERZ1, including testing or maintenance, that compromises the explosion protection techniques of that equipment; and

(b) includes the use of testing equipment that is not certified for use in the explosion risk zone where it is, or is intended to be, used

main fan means the fan that is the principal source of—

(a) providing fresh air to the underground parts of a mining operation; and

(b) controlling the accumulation of methane, noxious gases, dust, and other contaminants in the underground parts of a mining operation

medical practitioner means a health practitioner who is, or is deemed to be, registered with the Medical Council of New Zealand continued by section 114(1)(a) of the Health Practitioners Competence Assurance Act 2003, as a practitioner of the profession of medicine

metalliferous mining operation means any mining operation associated with the extraction of minerals

methane means methane and associated hydrocarbons

mine operator—

(a) has the meaning given to it in section 19L of the Act; and

(b) in relation to a particular mining operation, means the mine operator for that mining operation

mine worker has the meaning given to it in section 19L of the Act

mineral has the meaning given to it in section 19L of the Act

Mines Rescue Trust means the board recognised under section 7 of the Mines Rescue Act 2013

mining operation has the meaning given to it in section 19L of the Act

mobile plant means plant that is capable of moving—

(a) under its own power while energised by an internal power source, including a battery, compressed air, or an internal combustion engine; and

(b) while energised by a reeling cable or trailing cable

NERZ (or **negligible explosion risk zone**) means—

(a) an underground coal mining operation, or any part of it, where the general body concentration of methane is demonstrated by means of continuous and recorded monitoring to be less than 0.25%; or

(b) any part of an underground coal mining operation that is submerged by water

notifiable accident mean an accident specified in Schedule 8

old workings, in relation to a mining operation (**mining operation A**),—

(a) means the workings or any part of the workings of an abandoned or suspended mining operation that are above, below, or within 200 metres of the boundary of mining operation A; and

(b) includes roadways, voids, and goafs that were created as part of the abandoned or suspended mining operation

opencast coal mining operation means any mining operation associated with the exploration or extraction of coal and where no person works underground

opencast metalliferous mining operation means any mining operation associated with the extraction of minerals and where no person works underground

permit holder has the same meaning as it has in the Crown Minerals Act 1991

ppm means parts per million

principal control plan means a plan required under regulation 92

principal hazard has the meaning given to it in regulation 65

principal hazard management plan means a plan required under regulation 66

quarry operator means a person who controls a quarrying operation and, in relation to a particular quarrying operation, means the person who controls that operation

quarry worker means a person who works in a quarrying operation, either as an employee or as a self-employed person

quarrying operation has the meaning given to it in section 19N of the Act

reeling cable means a cable that is used or placed in position for the conveyance of electricity from an electrical system to mobile plant and capable of being wound onto a reeling drum

refuge means a facility located within the underground parts of an underground mining operation or tunnelling operation that—

(a) can be sealed during an emergency at the operation to prevent the entry of contaminated air; and

(b) has a supply of fresh air independent of the normal ventilation system

safety-critical equipment means electrical plant critical to maintaining safe conditions at the mining operation and that is permitted to remain energised at times when the supply of electricity to plant or to a part or the whole of the mining operation is otherwise required to be isolated

secondary workings—

(a) means the extraction of material from a place following the initial development phase; and

(b) includes pillar extraction, splitting pillars, caving, stoping, longwalling, and bottom coaling

shaft means an opening in an underground mining operation or tunnelling operation having an inclination above the horizontal of 15° or more—

(a) through which the mine workers or materials are transported; or

(b) that is used as a main intake or outlet for ventilation

site health and safety representative has the meaning given to it in section 19L of the Act

site office means a place at an operation for the time being designated by the site senior executive as the site office for that operation

site senior executive—

(a) has the meaning given to it in section 19L of the Act; and

(b) in relation to a particular mining operation, means the site senior executive for that mining operation

suspended means,—

(a) in relation to a mining operation other than a tunnelling operation, that the activities listed in 19M(a) and (b) of the Act are for the time being not being carried out, but the mining operation has not been abandoned; and

(b) in relation to a tunnelling operation, that tunnelling activities are for the time being not being carried out, but the tunnelling operation has not been abandoned

trailing cable means a cable, other than a reeling cable, that is used or placed in position for the conveyance of electricity from an electrical system to mobile plant

tunnelling operation has the meaning given to it in section 19O of the Act

underground coal mining operation means any underground mining operation associated with the exploration or extraction of coal

underground metalliferous mining operation means any underground mining operation associated with the extraction of minerals

underground mining operation means any mining operation, other than a tunnelling operation, where any person works underground

winder means any machinery used to raise or lower, by means of a rope or ropes, a conveyance up or down a shaft or slope, but does not include any lifting machine, endless rope haulage, or scraper winch installation

winding system means the equipment used to raise or lower a conveyance up or down a shaft or slope

WorkSafe means WorkSafe New Zealand established by section 5 of the WorkSafe New Zealand Act 2013.

(2) For the purpose of these regulations, **abandoned**, in relation to the whole or, as the case may be, a part of a mining operation, means,—

(a) in relation to a mining operation other than a tunnelling operation,—

(i) that the whole or, as the case may be, the part of the mining operation has been closed or sealed; and

(ii) that the activities described in section 19M(a) to (c) of the Act are no longer being carried out in the whole or, as the case may be, the part of the mining operation and any hazards associated with

the carrying out of those activities in that place have been eliminated or isolated; and

(b) in relation to a tunnelling operation,—

(i) that the tunnel or shaft has been completed or that the whole or, as the case may be, the part of the tunnelling operation has been closed or sealed; and

(ii) that tunnelling activities are no longer being carried out in the whole or, as the case may be, the part of the tunnelling operation and any hazards associated with the carrying out of those activities in that place have been eliminated or isolated.

4 Meaning of fresh air

A reference in these regulations to **fresh air** means that the air—

(a) contains not less than 19% by volume of oxygen; and

(b) contains not more than 0.25% methane; and

(c) contains not more than 25 ppm of carbon monoxide; and

(d) contains not more than 5 000 ppm of carbon dioxide; and

(e) contains no other substance at a level that is likely to cause harm to a mine worker over the period that the mine worker is exposed to the substance at the mining operation.

5 Relationship between Act and regulations

A person on whom a duty is imposed by these regulations in relation to a particular set of circumstances must, on the occurrence of those circumstances, comply with that duty, despite the fact that the Act may impose the same, a similar, or an additional duty on that person in relation to that set of circumstances.

6 Provisions affecting application of these regulations

Schedule 1 contains application, transitional, and savings provisions that affect other provisions of these regulations as from time to time amended, revoked, or repealed and replaced (*see* regulation 232).

Part 1
Safety-critical roles and competency requirements

Subpart 1—Site senior executive

7 Appointment of site senior executive

(1) The mine operator of a mining operation must appoint a site senior executive for that mining operation.

(2) Subject to regulation 10, a mine operator that has more than 1 mining operation may appoint a person to be the site senior executive for more than 1 mining operation.

8 Competency requirements for appointment as site senior executive

(1) The mine operator and the site senior executive must ensure that the site senior executive holds a current certificate of competence as a site senior executive and any other certificate or competency required by subclause (2).

(2) In addition to the requirements of subclause (1),—

(a) if appointed for an underground coal mining operation, the site senior executive must hold a current certificate of competence as—

(i) a first-class coal mine manager; or

(ii) if not more than 5 mine workers ordinarily work underground at the underground coal mining operation at any one time, a coal mine underviewer:

(b) if appointed for an underground metalliferous mining operation, the site senior executive must hold a current certificate of competence as—

(i) a first class mine manager; or

(ii) if at least 3 but not more than 10 mine workers ordinarily work underground at the underground metalliferous mining operaton at any one time, an A-grade tunnel manager; or

(iii) if fewer than 3 mine workers ordinarily work underground at the underground metalliferous mining operation at any one time, an A-grade tunnel manager or B-grade tunnel manager:

(c) if appointed for a tunnelling operation, the site senior executive must have successfully completed any additional competencies prescribed by WorkSafe under regulation 34(d) for a site senior executive of a tunnelling operation.

(3) Subclause (2)(a) does not apply during any period of time where the only activities at the mining operation are those described in regulation 16(2).

(4) If there is disagreement between the mine manager and the site senior executive in relation to any operational matter at the mining operation, the manager's view prevails if the site senior executive does not hold a relevant certificate of competence as a manager or holds a lower certificate of competence than the manager (of the relevant certificates of competence in regulation 35(b) to (j) applicable to the particular type of mining operation).

(5) Nothing in subclause (4) limits or affects the application of the Act to any matter arising at the mining operation.

9 Notice of appointment of site senior executive

(1) The mine operator who appoints a site senior executive must give notice of that appointment to the person appointed, and to WorkSafe.

(2) The notice must specify the identity of the site senior executive and the mining operation or mining operations for which he or she has been appointed as site senior executive.

10 WorkSafe may advise appointment not suitable

(1) Within 30 days of the date on which notice is given to WorkSafe under regulation 9 of the appointment of a site senior executive, WorkSafe may give notice to the mine operator that it considers the appointment to be unsuitable—

(a) because the person does not hold the required certificates of competence; or

(b) because the person has been appointed as site senior executive for more than 1 mining operation and will not be able to effectively perform his or her role as a site senior executive at each of those mining operations; or

(c) for any other reason relating to the suitability of the person to perform the role of site senior executive at the mining operation or mining operations to which the person has been appointed.

(2) WorkSafe may require the mine operator to supply information relating to the appointment in order to assist it to form an opinion for the purpose of subclause (1).

(3) The mine operator must terminate or modify the appointment in accordance with any notice given under subclause (1).

11 Mine operator must ensure site senior executive has sufficient resources

The mine operator must ensure that the site senior executive has sufficient resources and authority to perform his or her functions, duties, and powers under the Act and these regulations.

12 Appointment of acting site senior executive during temporary absence

(1) If the site senior executive of a mining operation is temporarily unable to perform his or her duties as site senior executive for the mining operation, the mine operator must appoint, in writing, a person to act as the site senior executive during the absence.

(2) The mine operator must ensure that the acting site senior executive is a fit and proper person to act in the place of the site senior executive.

(3) Subject to subclause (2), it is not necessary that the acting site senior executive hold any certificate of competence.

(4) The mine operator must ensure that written notice of an appointment as acting site senior executive is given to the person appointed, and to WorkSafe.

(5) The person acting as the site senior executive is subject to all of the obligations of a site senior executive.

(6) No act done by an acting site senior executive purporting in good faith to act as the site senior executive may in any proceedings be questioned on the ground that the occasion for that site senior executive to act had not arisen or had ceased.

Subpart 2—Manager

13 Manager of mining operation

The mine operator of a mining operation must appoint a person to—

(a) manage the mining operation; and

(b) supervise the health and safety aspects of the mining operation on every day on which any mine worker is at work.

14 Manager of quarrying operation

The quarry operator of a quarrying operation must appoint a person to—

(a) manage the quarrying operation; and

(b) supervise the health and safety aspects of the quarrying operation on every day on which any quarry worker is at work.

15 Manager of alluvial mining operation

The alluvial mine operator of an alluvial mining operation must appoint a person to—

(a) manage the alluvial mining operation; and

(b) supervise the health and safety aspects of the alluvial mining operation on every day on which any alluvial mine worker is at work.

16 Manager must hold certificate

(1) The mine operator or, as the case may be, the quarry operator or alluvial mine operator, and the manager must ensure that the manager holds a current certificate of competence specified in regulations 17 to 22 for the kind of mining operation or quarrying operation or alluvial mining operation to which the manager is appointed.

(2) Subclause (1) does not apply to—

(a) any operation in which any activity is carried out pursuant to a prospecting licence or an exploration licence granted under the Mining Act 1971 or a coal prospecting licence granted under the Coal Mines Act 1979 or a prospecting permit or an exploration permit granted under the Crown Minerals Act 1991, being in each case a licence or permit in force; or

(b) any operation in which any exploratory activity is carried out by machinery for the purpose of ascertaining whether a mine or quarry may be worked.

17 Certificate of competence of manager of metalliferous mining operation

(1) Subject to subclauses (2) to (5), a manager appointed to a metalliferous mining operation must hold a certificate of competence as a first-class mine manager.

(2) A manager appointed to an underground metalliferous mining operation in which more than 3 but not more than 10 mine workers ordinarily work underground at any one time may hold a certificate of competence as an A-grade tunnel manager.

(3) A manager appointed to an underground metalliferous mining operation in which not more than 3 mine workers ordinarily work underground at any one time may hold—

(a) a certificate of competence as an A-grade tunnel manager; or

(b) a certificate of competence as a B-grade tunnel manager.

(4) A manager appointed to an opencast metalliferous mining operation in which more than 4 mine workers ordinarily work at any one time may hold a certificate of competence as an A-grade quarry manager.

(5) A manager appointed to an opencast metalliferous mining operation in which not more than 4 mine workers ordinarily work at any one time may hold—

(a) a certificate of competence as an A-grade quarry manager; or

(b) a certificate of competence as a B-grade quarry manager.

18 Certificate of competence of manager of underground coal mining operation

(1) Subject to subclause (2), a manager appointed to an underground coal mining operation must hold a certificate of competence as a first-class coal mine manager.

(2) A manager appointed to an underground coal mining operation in which not more than 5 mine workers ordinarily work underground at any one time may hold a certificate of competence as a coal mine underviewer.

19 Certificate of competence of manager of opencast coal mining operation

A manager appointed to an opencast coal mining operation must hold a certificate of competence as an A-grade opencast coal mine manager.

20 Certificate of competence of manager of tunnelling operation

(1) Subject to subclause (2), a manager appointed to a tunnelling operation must hold a certificate of competence as an A-grade tunnel manager.

(2) A manager appointed to a tunnelling operation in which not more than 2 mine workers ordinarily work underground at any one time may hold a certificate of competence as a B-grade tunnel manager.

21 Certificate of competence of manager of quarrying operation

(1) Subject to subclauses (2) and (3), a manager appointed to a quarrying operation must hold a certificate of competence as an A-grade quarry manager.

(2) A manager appointed to a quarrying operation in which no explosives are used and not more than 4 quarry workers ordinarily work at any one time may hold a certificate of competence as a B-grade quarry manager.

(3) A manager appointed to a quarrying operation in which no explosives are used may hold—

(a) a certificate of competence as a B-grade quarry manager; or

(b) a certificate of competence as a manager to manage that quarry, being the quarry specified in the certificate.

22 Certificate of competence of manager of alluvial mining operation

(1) Subject to subclauses (2) and (3), a manager appointed to an alluvial mining operation must hold a certificate of competence as a first-class mine manager.

(2) A manager appointed to an alluvial mining operation in which more than 4 alluvial mine workers ordinarily work at any one time may hold a certificate of competence as an A-grade quarry manager.

(3) A manager appointed to an alluvial mining operation in which not more than 4 alluvial mine workers ordinarily work at any one time may hold—

(a) a certificate of competence as an A-grade quarry manager; or

(b) a certificate of competence as a B-grade quarry manager.

23 Acting manager

(1) If for any reason the manager is unable to act as manager for any period, the mine operator or, as the case may be, the quarry operator or alluvial mine operator must designate a person to act as manager for that period or for 10 weeks, whichever is shorter.

(2) The mine operator, quarry operator, or alluvial mine operator must ensure that the acting manager is a fit and proper person to act in the place of the manager.

(3) Subject to subclause (2), it is not necessary that the acting manager hold any certificate of competence.

(4) No act done by an acting manager purporting in good faith to act as the manager may in any proceedings be questioned on the ground that the occasion for that manager to act had not arisen or had ceased.

24 Notification of appointment of manager or acting manager

The mine operator or, as the case may be, the quarry operator or the alluvial mine operator must ensure that—

(a) written notice of an appointment as manager or a designation as acting manager is given to the person appointed or designated, as the case may require, and to WorkSafe; and

(b) all mine workers or, as the case may be, quarry workers or alluvial mine workers are informed of the name of the manager or acting manager.

25 Mine operator must ensure workers comply with instructions of manager or acting manager

The mine operator or, as the case may be, the quarry operator or alluvial mine operator must ensure that, in order to ensure compliance with the Act and these regulations, all mine workers comply with all reasonable instructions given by—

(a) the manager; and

(b) any acting manager.

Subpart 3—Other safety-critical roles

26 Electrical superintendent

(1) The site senior executive of a mining operation must appoint an electrical superintendent for the mining operation if an electrical engineering principal control plan is in place, or required to be put in place, at the mining operation.

(2) The site senior executive and the person appointed as an electrical superintendent must ensure that the person holds a current certificate of competence as an electrical superintendent.

27 Mechanical superintendent

(1) The site senior executive of a mining operation must appoint a mechanical superintendent for the mining operation if a mechanical engineering control plan is in place, or required to be put in place, at the mining operation.

(2) The site senior executive and the person appointed as a mechanical superintendent must ensure that the person holds a current certificate of competence as a mechanical superintendent.

28 Mine surveyor

(1) The site senior executive of an underground mining operation or tunnelling operation must appoint a mine surveyor for the operation.

(2) The site senior executive and the person appointed as a mine surveyor at an underground mining operation must ensure that the person holds a current certificate of competence as a mine surveyor.

(3) The site senior executive and the person appointed as a mine surveyor at a tunnelling operation must ensure that the person holds a current certificate of competence as a mine surveyor or is a licensed cadastral surveyor.

(4) In considering any appointment of a mine surveyor, the site senior executive must consider—

(a) the education, knowledge, and experience of the person, having regard to the type and size of the mining operation and the nature and complexity of the technology used at the mining operation; and

(b) the fitness and capacity of the person to exercise the skills required as a mine surveyor.

(5) Unless expressly authorised by WorkSafe, no underground mining operation or tunnelling operation may operate for longer than 28 days without a person holding the position of mine surveyor.

29 Ventilation officer

(1) The site senior executive of a mining operation must appoint a ventilation officer for the mining operation if a ventilation control plan is in place, or required to be put in place, at the mining operation.

(2) The site senior executive and the person appointed as a ventilation officer must ensure that the person holds a current certificate of competence as a ventilation officer.

30 Underviewer

(1) The site senior executive of an underground coal mining operation must appoint an underviewer for each production shift at the mining operation.

(2) Subject to subclause (3), the site senior executive and the person appointed as an underviewer must ensure that the person holds a current certificate of competence as a first-class coal mine manager or an underviewer.

(3) WorkSafe may at any time give notice to the site senior executive that the person appointed as underviewer must hold a current certificate of competence as a first-class coal mine manager.

(4) The site senior executive must ensure that an underviewer is present at each production shift at the mining operation.

31 Supervisor

(1) The site senior executive of a mining operation other than an underground coal mining operation must appoint a supervisor for each production shift.

(2) The site senior executive and the person appointed as a supervisor of an underground metalliferous mining operation must ensure that the person holds a certificate of competence as a B-grade tunnel manager, an A-grade tunnel manager, or a first-class mine manager.

(3) The site senior executive and the person appointed as a supervisor of a tunnelling operation must ensure that the person holds a current certificate of competence as a B-grade tunnel manager or an A-grade tunnel manager.

(4) The site senior executive and a person appointed as a supervisor of an opencast coal mining operation must ensure that the person holds a current certificate of competence as a B-grade opencast coal mine manager or an A-grade opencast coal mine manager.

(5) The site senior executive and a person appointed as a supervisor of an opencast metalliferous mining operation must ensure that the person holds a current certificate of competence as a B-grade quarry manager, an A-grade quarry manager, or a first-class mine manager.

(6) Despite subclauses (2) to (5), WorkSafe may at any time give notice to the site senior executive that the person appointed as supervisor must hold a certificate of competence of one of the kinds described in regulation 35(b) or (d) to (j).

(7) The site senior executive must ensure that a supervisor is present at each production shift at the mining operation.

32 Other workers required to hold certificates

The site senior executive of a mining operation must take all practicable steps to ensure that a worker required to carry out the duties normally associated with a coal mine deputy or a winding engine driver holds a current certificate of competence issued in accordance with these regulations.

33 Appointment of person to more than 1 role

(1) The site senior executive may appoint—

(a) a person to more than 1 of the roles in regulations 13 to 32:

(b) the site senior executive himself or herself to 1 or more of the roles in regulations 13 to 32, in addition to his or her role as site senior executive.

(2) The site senior executive must be satisfied that—

(a) the person or, as the case may be, the site senior executive himself or herself, holds the required certificates of competence for each role to be performed; and

(b) the person or, as the case may be, the site senior executive himself or herself, will be able to carry out each role effectively.

(3) At any time WorkSafe may give written notice to the site senior executive that it considers that a person (including the site senior executive) appointed to more than 1 role is not able to carry out each role effectively because the person does not meet either or both of the criteria in subclause (2)(a) and(b).

(4) WorkSafe may require information from the site senior executive relating to the appointment in order to assist it to form an opinion for the purpose of subclause (3).

(5) The site senior executive must terminate or modify any appointment in accordance with any notice given under subclause (3).

Subpart 4—Certificates of competence and other competence requirements

34 WorkSafe may prescribe requirements

WorkSafe may, after consultation with the Board, by notice in the *Gazette* prescribe—

(a) the requirements to be met for the granting of certificates of competence for mine workers, quarry managers, alluvial mine managers, and site senior executives, including—

(i) the qualifications and experience required for the granting of a certificate of competence; and

(ii) the continuing education required to be completed for the granting of a renewal of a certificate of competence; and

(b) competency requirements to be met, including unit standards to be achieved, by mine workers who do not require a certificate of competence; and

(c) competency requirements to be met, including unit standards to be achieved, by a site senior executive in addition to holding a certificate of competence; and

(d) competency requirements to be met by site health and safety representatives.

35 Certificates of competence

The following kinds of certificate of competence may be issued under regulation 41:

(a) site senior executive:

(b) first-class mine manager:

(c) first-class coal mine manager:

(d) A-grade opencast coal mine manager:

(e) B-grade opencast coal mine manager:

(f) A-grade quarry manager:

(g) B-grade quarry manager:

(h) a certificate of competence as a manager to manage the quarrying operation specified in the certificate:

(i) A-grade tunnel manager:

(j) B-grade tunnel manager:

(k) coal mine underviewer:

(l) supervisor:

(m) coal mine deputy:

(n) electrical superintendent:

(o) mechanical superintendent:

(p) mine surveyor:

(q) ventilation officer:

(r) winding engine driver.

36 Application for certificate of competence

An application for a certificate of competence must be made to the Board and be accompanied by the fee prescribed in Schedule 2.

37 Application to contain evidence

An application for a certificate of competence must contain evidence of the matters referred to in regulation 38.

38 Requirements for applicants

An applicant for a certificate of competence must—

(a) have the qualifications and experience prescribed under regulation 34 for a holder of that certificate of competence; and

(b) be a fit and proper person to hold that certificate of competence.

39 Investigations by Board

(1) For the purpose of investigating whether an applicant for a certificate of competence is a person to whom regulation 38 applies, the Board may—

(a) request the applicant to supply information on relevant matters; and

(b) request any person who the Board believes is able to provide relevant information to provide information on relevant matters.

(2) A request under subclause (1)—

(a) must specify those matters on which the Board seeks information; and

(b) may be made from time to time.

(3) A person has the same privileges in relation to the giving of information to the Board as witnesses have in any court.

40 Use of information

(1) For the purpose of determining whether an applicant is a person to whom regulation 38 applies, the Board may take into account any information received in response to the exercise of the powers in regulation 39.

(2) The Board may refuse an application if it is unable to obtain sufficient information to satisfy it that the applicant is a person to whom regulation 38 applies.

41 Board to issue certificate of competence

(1) The Board must issue the certificate of competence sought in the application if it is satisfied—

(a) that the application was made in accordance with regulations 36 and 37; and

(b) that the applicant is a person to whom regulation 38 applies.

(2) If the Board refuses to issue a certificate of competence, it must supply to the applicant a statement of the reasons for the refusal.

42 Duration of certificate of competence

(1) Unless cancelled earlier, a certificate of competence expires 5 years after the date on which it was issued.

(2) The certificate of competence must show on its face the date on which it expires.

43 Continuing professional development condition of certificate

The holder of a certificate of competence must comply with the continuing education requirements prescribed under regulation 34 for a holder of that certificate of competence.

44 Renewal of certificate of competence

(1) An application for the renewal of a certificate of competence must—

(a) be made to the Board not less than 2 months before the day on which the certificate expires; and

(b) be accompanied by—

(i) evidence of the applicant's compliance with the requirements of regulation 43; and

(ii) the fee, if any, prescribed in Schedule 2.

(2) If an application is made in accordance with this regulation, the Board must renew the certificate of competence to which the application relates if it is satisfied that the applicant has complied with the requirements of regulation 43.

(3) Subclause (2) is subject to regulation 45.

(4) A certificate of competence may be renewed before or after the day on which the certificate expires, but in each case the renewed certificate comes into force on the day after the date on which it expires.

(5) Regulation 38 applies to a certificate of competence renewed under this regulation.

45 Cancellation or suspension of certificate of competence

(1) The Board must cancel a certificate of competence if it is satisfied on reasonable grounds that the holder has died.

(2) The Board must cancel a certificate of competence if, after giving the holder at least 14 days' notice and an opportunity to be heard (including in person), it is satisfied on reasonable grounds—

(a) that the certificate was issued in error; or

(b) that the holder's application for the certificate contained any false information or evidence; or

(c) that the holder either never has been or is no longer a person to whom regulation 38 applies.

(3) The Board must cancel or suspend a certificate of competence for such period as it thinks fit if, after giving the holder at least 14 days' notice and an opportunity to be heard (including in person), it is satisfied on reasonable grounds—

(a) that the holder has been so negligent in carrying out any task that the holder of the certificate could reasonably be expected to perform to a reasonable standard that the life of any person has been or could have been endangered; or

(b) that the holder has shown himself or herself unfit to be the holder of the certificate by the improper manner in which he or she has carried out any task that the holder of the certificate could reasonably be expected to perform in a proper manner.

(4) The Board may suspend or cancel a certificate of competence if it is satisfied that the holder of the certificate has not complied with the requirements of regulation 43.

(5) A person whose certificate of competence is suspended or cancelled must return the certificate to the Board within 14 days after the date of the suspension or cancellation.

46 Replacement of certificate of competence

(1) An application for a duplicate of a certificate of competence must be made to the Board and be accompanied by the fee, if any, prescribed in Schedule 2.

(2) If the Board is satisfied that a certificate of competence has been lost or destroyed, it must issue a duplicate of that certificate.

47 Register

(1) The Board must keep a register of the individuals to whom it has issued a certificate of competence.

(2) The register must show—

(a) the full name of the holder:

(b) the kind of certificate the holder holds:

(c) the date on which the certificate expires:

(d) in relation to a certificate that has been suspended, the date on which the suspension took effect and the date on which the suspension ends:

(e) in relation to a certificate that has been cancelled, the date of cancellation.

48 Access to register

(1) Any person may apply to the Board for a copy of the register or an extract from it for the purpose of ascertaining whether an identified person—

(a) holds a current certificate of competence; or

(b) holds a certificate of competence that is suspended; or

(c) held a certificate of competence that has subsequently expired or been cancelled.

(2) If the Board is satisfied that the person has a proper interest in the information and the information is required for a purpose specified in any of subclauses (1)(a) to (c), the Board may, on payment of the prescribed fee, if any, provide the person with a copy of or an extract from the register.

49 Appeal to District Court

(1) An appeal may be made to a District Court by—

(a) an applicant who is dissatisfied with a refusal to issue a certificate of competence under regulation 41:

(b) a holder of a certificate of competence who is dissatisfied with a refusal to renew the certificate of competence under regulation 44:

(c) a holder of a certificate of competence who is dissatisfied with the cancellation or suspension of the certificate of competence under regulation 45:

(d) a holder of a certificate of competence who is dissatisfied with a refusal to issue a duplicate of that certificate under regulation 46.

(2) Part 14 of the District Courts Rules 2009 applies to an appeal brought under subclause (1).

(3) The decision of the District Court on any appeal brought under subclause (1) is final.

Competency requirements for mine workers

50 Supervision of untrained mine workers

(1) This regulation applies to any mine worker who does not require a certificate of competence of a kind in regulation 35.

(2) A mine worker (**A**) who has not achieved the unit standards prescribed by WorkSafe under regulation 34 or received equivalent training provided at the mining operation by the mine operator must be accompanied at all times by a mine worker (**B**) who—

(a) has achieved the unit standards or received equivalent training at the mining operation or holds a certificate of competence of a kind in regulation 35 relevant to the work being done; and

(b) has at least 12 months' experience working at the same kind of mining operation at which B is to accompany A.

(3) For the purposes of this regulation, **equivalent training** means training that has been assessed by an assessor registered with an industry training organisation as being such that satisfactory completion of the training would otherwise have entitled the mine worker to achieve the prescribed unit standards.

Competencies of persons appointed as health and safety inspectors who inspect mining operations

51 Competencies of persons appointed as health and safety inspectors who inspect mining operations

(1) This regulation prescribes examinations for the purpose of section 29(1) of the Act and applies in respect of any person appointed as a health and safety inspector who is to inspect mining operations.

(2) Unless the person already has experience relevant to health and safety in mining operations, the person must have passed an examination or examinations in areas of knowledge WorkSafe is satisfied are specifically relevant to health and safety in mining operations.

(3) The examinations prescribed by this regulation are in addition to those prescribed in regulation 6 of the Health and Safety in Employment (Prescribed Matters) Regulations 2003.

Part 2
Health and safety management system

Subpart 1—Responsibility for health and safety management system

52 Mine operator must ensure health and safety management system developed, implemented, and maintained

The mine operator must ensure that the site senior executive develops, implements, and maintains a health and safety management system for the mining operation that complies with these regulations.

53 Site senior executive must develop, implement, and maintain health and safety management system

(1) The site senior executive must develop, implement, and maintain a health and safety management system that complies with these regulations.

(2) The health and safety management system must be in place,—

(a) in the case of a coal mining operation, from when exploration activities commence until the operation is abandoned; and

(b) in the case of a metalliferous mining operation, from the commencement of the physical development of the mining operation and construction of mining infrastructure, including earthworks, until the operation is abandoned; and

(c) in the case of a tunnelling operation, from the commencement of the physical development of the tunnel until all tunnelling activities cease.

Subpart 2—Risk assessment

54 Risk appraisal

The site senior executive must ensure that—

(a) a process is in place to systematically identify the hazards to mine workers at the mining operation; and

(b) the process is used when developing, implementing, and maintaining the health and safety management system, including, without limitation, each time the health and safety management system or any aspect of it is reviewed.

55 Risk assessment

(1) The site senior executive must ensure that—

(a) a process is in place to assess the inherent risk of harm to mine workers from identified hazards at the mining operation and to identify the controls required to manage that risk; and

(b) the process is used when developing, implementing, and maintaining the health and safety management system, including, without limitation, each time the health and safety management system or any aspect of it is reviewed.

(2) Nothing in this regulation limits any specific provision in Parts 3 and 4 relating to the assessment of risks.

Subpart 3—Content of health and safety management system

56 Content of health and safety management system

(1) The health and safety management system must contain at least the following:

(a) the mine operator's health and safety policy, including broad aims in relation to the healthy and safe operation of the mine:

(b) a description of the processes used to identify the hazards present at the mining operation, to assess the inherent risk of harm to workers from those hazards, and to identify the controls required to manage that risk as required by regulations 54 and 55:

(c) the means of reporting and recording relevant health and safety information, including the setting of key performance indicators and investigation of accidents:

(d) a description of the systems, procedures, and other risk control measures in place to manage hazards and to respond to increased levels of risk in relation to any hazard:

(e) a description of the measures that will be used to identify material changes at the mining operation that may create hazards:

(f) a description of the management structure for the management of the health and safety at the mining operation, including competency requirements and arrangements for filling temporary and permanent vacancies, and competency requirements for acting positions in the structure:

(g) monitoring and audit matters as required by regulation 57:

(h) a description of the arrangements in place to monitor the health and safety of mine workers at the mining operation:

(i) the principal hazard management plans and principal control plans required for the mining operation by these regulations:

(j) a description of arrangements in place to monitor, assess, and inspect working places within the mining operation:

(k) any other matter required by these regulations to be included in the health and safety management system.

(2) The health and safety management system must be set out at a level of detail commensurate with the nature, size, and complexity of the mining operation

and the hazards and any other relevant matters associated with the mining operation.

(3) The health and safety management system must be prepared in a form and expressed in a way that it is easily understood by any mine worker.

Subpart 4—Review, consultation, and records

57 Audit and monitoring of health and safety management system

The health and safety management system must—

(a) set out performance standards for measuring the effectiveness of all aspects of the health and safety management system that—

(i) are in sufficient detail that the mine operator's ability to ensure the effectiveness of the system is apparent from the documentation; and

(ii) include steps to be taken to continually improve all aspects of the system; and

(b) include a description of the way in which the performance standards are to be met; and

(c) set out the process for auditing the effectiveness of the health and safety management system against those performance standards, including the methods, frequency, and results of the audit process.

58 Periodic review of health and safety management system

The site senior executive must ensure that the health and safety management system is reviewed and, if necessary, revised—

(a) not later than 12 months after the date on which the mining operation begins; and

(b) at least every 3 years after the date of the first review.

59 Additional reviews of health and safety management system

The site senior executive must ensure that, in addition to any review required under regulation 58, the health and safety management system, or, as the case may be, any relevant part of it, is reviewed and, if necessary, revised—

(a) before a significant or material change is made to the mining operation:

(b) if a notifiable accident occurs in the mining operation:

(c) if an audit of the health and safety management system, or any part of it, indicates a deficiency in the management of hazards in the mining operation:

(d) if there is evidence that a hazard in the mining operation is not adequately controlled by the measures outlined in the system:

(e) if a site health and safety representative or industry health and safety representative requests the review:

(f) if and when the mining operation is suspended:

(g) if the mining operation has been suspended, before the mining operation recommences.

60 Consultation

The site senior executive must consult with mine workers and site health and safety representatives about the content of the health and safety management system when—

(a) preparing the health and safety management system; and

(b) reviewing the health and safety management system, or any part of it.

61 Maintenance of records of health and safety management system

(1) The mine operator must ensure that the following records are kept:

(a) the current version of the health and safety management system:

(b) any previous versions of the health and safety management system that applied in the preceding 7 year period:

(c) records of all reviews and audits of the health and safety management system, or any part of it, that have been conducted in the preceding 7 year period:

(d) records of any risk appraisal carried out to identify principal hazards at the mining operation as required by regulation 66(1)(a).

(2) The mine operator must ensure that the records referred to in subclause (1) are maintained in such a way that—

(a) the current version of the health and safety management system can be clearly identified; and

(b) every previous version of the health and safety management system required to be kept is kept as it was while it was current and shows the period during which it was current.

(3) The mine operator must ensure that the records referred to in subclause (1) are made available, on request, to WorkSafe, a site health and safety representative, or an industry health and safety representative.

Subpart 5—Providing health and safety management system documentation to mine workers

62 Providing health and safety management system documentation to mine workers

(1) The mine operator for a mining operation must ensure that, before a mine worker commences work at the mining operation,—

(a) the mine worker is given a written summary of the health and safety management system for the mining operation; and

(b) the mine worker is informed of the right to access the current version of the health and safety management system.

(2) The mine operator must ensure that the current version of the health and safety management system is readily accessible by a mine worker at the mining operation.

(3) The mine operator must ensure that a mine worker is given access to—

(a) the current versions of the principal hazard management plans that are relevant to the work the mine worker is to carry out; and

(b) the current versions of the principal control plans that are relevant to the work the mine worker is to carry out; and

(c) the current versions of any other plans or documented processes for the management of hazards that are relevant to the work the mine worker is to carry out.

(4) If the health and safety management system is revised under subpart 4, the mine operator must ensure that each mine worker at the mining operation is made aware of any revision that is relevant to work being carried out by that mine worker.

63 Providing health and safety management system documentation to contractor

(1) This regulation applies to a person who is engaged by the mine operator to provide services where the person's employees or other workers engaged by the person to provide those services will be mine workers in relation to the mine operator.

(2) The mine operator must ensure that the current version of the health and safety management system, and records of all audits and reviews of the health and safety management system, or any part of it, and other audits of the site itself that have been conducted, are made available on request to any person to whom this regulation applies.

64 Duty to provide instruction

The mine operator for a mining operation must ensure that mine workers at the mining operation are provided with suitable instruction in relation to the health and safety management system before commencing work and that a record of this instruction is kept.

Part 3
Principal hazard management plans

65 Meaning of principal hazard

In these regulations, **principal hazard** means—

(a) any hazard arising at any mining operation that could create a risk of multiple fatalities in a single accident or a series of recurring accidents at the mining operation in relation to any of the following:

(i) ground or strata instability:

(ii) inundation and inrush of any substance:

(iii) mine shafts and winding systems:

(iv) roads and other vehicle operating areas:

(v) tips, ponds, and voids:

(vi) air quality:

(vii) fire or explosion:

(viii) explosives:

(ix) gas outbursts:

(x) spontaneous combustion in underground coal mining operations; and

(b) any other hazard at the mining operation that has been identified by the site senior executive under regulation 66 as a hazard that could create a risk of multiple fatalities in a single accident, or a series of recurring accidents at the mining operation.

66 Site senior executive responsible for identifying principal hazards and having principal hazard management plan

(1) The site senior executive must—

(a) carry out an appraisal of the mining operation to identify principal hazards at the mining operation; and

(b) ensure there is a principal hazard management plan for each principal hazard identified.

(2) Without limiting subclause (1),—

(a) the following mining operations must have a principal hazard management plan for fire or explosion:

(i) an underground coal mining operation:

(ii) an underground metalliferous mining operation or tunnelling operation if methane is detected at the mining operation:

(b) any mining operation where explosives are used must have a principal hazard management plan for explosives:

(c) a mining operation must have a principal hazard management plan for tips, ponds, and voids if a tip at the mining operation is—

(i) located on a slope; and

(ii) is greater than 15 metres in height; and

(iii) is greater than 100 000 cubic metres in volume.

67 General purposes of principal hazard management plans

The general purposes of the principal hazard management plans are to—

(a) identify the nature of all principal hazards at any mining operation:

(b) set out the measures that will be used to ensure that all principal hazards are effectively managed.

68 Content of principal hazard management plans

Each principal hazard management plan must include the following:

(a) a statement as to the nature of a principal hazard addressed by the principal hazard management plan:

(b) a description of how all risk assessments will be conducted in relation to the principal hazard:

(c) the results of any risk assessment completed in respect of the principal hazard:

(d) a description of the control measures to be implemented to manage the principal hazard and the risk of harm it presents to the health and safety of mine workers:

(e) a description of how any specific requirements or duties in the regulations that apply to the principal hazard will be complied with:

(f) a description of the emergency preparedness for the principal hazard:

(g) a description of the roles and their corresponding responsibilities under the principal hazard management plan, including the competencies required to carry out the roles and the details of the responsibilities:

(h) a statement of the periodic review of the principal hazard management plan's continued suitability and effectiveness in managing the principal hazard and the risks related to the hazard at the mining operation, in accordance with regulation 69:

(i) a description of the audit programme in accordance with regulation 70:

(j) any other matter required by these regulations in relation to particular principal hazards.

69 Review and revision of principal hazard management plans

(1) In addition to the requirements of regulation 58, the site senior executive must ensure that each principal hazard management plan is reviewed at least once every 2 years after the date the principal hazard management plan is approved by the site senior executive.

(2) In addition to the requirements of regulation 59, the site senior executive must ensure that a principal hazard management plan is reviewed after—

(a) the occurrence of an accident at the mining operation involving a principal hazard that it was intended to manage:

(b) a material change in the management structure at the mining operation that may affect the principal hazard management plan:

(c) a material change in plant used or installed at the mining operation that may affect the principal hazard management plan:

(d) the occurrence of any other event as provided in a principal hazard management plan as requiring a review of the plan.

(3) Any review of a principal hazard management plan under subclause (1) must include—

(a) a review of the risk assessment in relation to the relevant principal hazard; and

(b) a review of all other aspects of the principal hazard management plan.

(4) In addition to the requirements of regulation 61, the mine operator must ensure that records of all reviews and revisions of principal hazard management plans are kept for at least 12 months from the date on which the mining operation is abandoned.

(5) The mine operator must, on request, provide records relating to a review of a principal hazard management plan to an inspector or a site health and safety representative.

70 Audits of principal hazard management plans

(1) The mine operator must engage, and pay for, a competent person to carry out an independent external audit of all principal hazard management plans, ensuring that—

(a) external audits are carried out once every 3 years after the date the principal hazard management plan is approved by the site senior executive.; and

(b) the external auditors are independent of the mining operation.

(2) In addition to the requirements of regulation 61, the mine operator must ensure that records of all audits of principal hazard management plans are kept for at least 12 months from the date on which the mining operation is abandoned.

Ground or strata instability

71 Principal hazard management plans for ground or strata instability

(1) Following the identification of ground or strata instability as a principal hazard at a mining operation, the site senior executive must ensure that a geotechnical assessment is completed by a competent person to determine the level of ground or strata support required to safely conduct the mining operation.

(2) A principal hazard management plan in relation to ground or strata instability must, at a minimum, address the following:

(a) circumstances under which ground or strata failure may occur at the mining operation; and

(b) ways in which potential ground or strata failure could be avoided through the design of suitable ground or strata support methods that must have regard to—

(i) the characteristics of the area to be supported, including natural and geotechnical features:

(ii) the surrounding workings, including abandoned or previously excavated workings:

(iii) the activities to be carried out, including proposed activities:

(iv) in relation to underground mining operations and tunnelling operations, the size and geometry of the openings in the underground workings; and

(c) suitable ground or strata support methods that are able to be implemented by means of clear directions and diagrams; and

(d) continuous modelling, testing, and updating, where required, of the ground or strata support methods; and

(e) appropriate equipment and procedures to monitor, record, interpret, and analyse data about seismic activity and its impact on the mining operation; and

(f) collection, analysis, and interpretation of relevant geotechnical data, including monitoring of openings and excavations, where appropriate; and

(g) maintaining the integrity of ground or strata support, including, for example, by replacing defective supports; and

(h) allowing for higher standards of support to be installed (for example, more support installed at more frequent intervals) than that required by the principal hazard management plan.

Inundation and inrush

72 Meaning of inundation and inrush

(1) In these regulations, **inundation and inrush** refers to the sudden and unplanned entry into workings of a mining operation of liquid, gas, or other materials or substances.

(2) Subclause (1) applies unless a provision of these regulations provides otherwise.

73 Consideration of whether inundation and inrush is a principal hazard

(1) In the course of an appraisal as required under regulation 66(1)(a) to identify inundation and inrush as a principal hazard at a mining operation, the site senior executive must ensure that a suitably qualified and experienced person reviews relevant plans in accordance with subclauses (2) to (4).

(2) The suitably qualified and experienced person must include consideration of the following in the review:

(a) any mine plans of the mining operation, made and kept as required under these regulations:

(b) any relevant historical mine or survey plans.

(3) The review by the suitably qualified and experienced person must include—

(a) identifying and locating old workings that may be in the vicinity of the proposed activities to be undertaken at the mining operation; and

(b) ascertaining whether the old workings contain accumulation of any matter than may flow, including those in a solid, liquid, or gaseous state.

(4) The suitably qualified and experienced person must, following the completion of the review,—

(a) report the findings in writing; and

(b) have the written report peer reviewed by a competent person who is independent of the mining operation; and

(c) give a copy of the peer-reviewed report to the site senior executive.

(5) The site senior executive must, on request, make the peer-reviewed report available to WorkSafe within a reasonable period of time.

74 Principal hazard management plans for inundation and inrush

(1) The following matters must be considered in the development of a principal hazard management plan in relation to inundation and inrush:

(a) the proposed activities to be undertaken:

(b) the potential sources of inundation and inrush:

(c) the nature and magnitude of the rate of flow of the potential sources of inundation and inrush:

(d) the location of adjacent workings and the strength of the ground between workings:

(e) the location, design, and construction of dams, ponds, tailings dams, emplacement areas, and any other bodies of water or material (including material entering a mining operation due to adverse weather conditions or other natural events):

(f) the reasonably foreseeable harm that could result from each potential source of inundation and inrush, having regard to matters such as—

(i) the accuracy of plans of the mining operation:

(ii) the location of the potential sources of inundation and inrush:

(iii) variation in rock properties:

(iv) geological weaknesses:

(v) future activities at the mining operation:

(vi) geological changes and similar unknown matters:

(g) the potential for an accumulation of liquid, gas, or other materials or substances that could flow into other workings or locations:

(h) the monitoring system that will be needed to provide warnings of conditions that may—

(i) lead to an occurrence of inundation and inrush; and

(ii) warrant a reassessment of the nature of the inundation and inrush hazard.

(2) A principal hazard management plan in relation to inundation and inrush must, at a minimum, include the following:

(a) a written summary of the nature and magnitude of the identified risks of inundation and inrush:

(b) the assumptions made in developing the principal hazard management plan:

(c) a description of special systems that have been developed for working at the mining operation and in inrush control zones (including the assumptions underpinning the development of those systems):

(d) identification of the inrush control zones that have been or will be established and maintained:

(e) confirmation of the location of all old workings in the vicinity of an area in which work is to be carried out, before work is commenced in a new area of the mining operation:

(f) means of sealing or otherwise controlling boreholes to prevent inundation and inrush.

75 Additional ground of review of principal hazard management plans relating to inundation and inrush

In addition to the requirements of regulation 59, the site senior executive must ensure that a principal hazard management plan relating to inundation and inrush is reviewed and, if necessary, revised in the following circumstances:

(a) before the workings of the mining operation are extended into any new area:

(b) before any work is carried out in an inrush control zone.

76 Obligations relating to work in inrush control zone

(1) Prior to commencement of any work in an inrush control zone, the site senior executive must carry out a risk assessment.

(2) The purpose of the risk assessment is to determine the risk of inundation and inrush from working in an inrush control zone.

(3) As part of the notification under regulation 229, the site senior executive must provide WorkSafe with—

(a) the results of the risk assessment; and

(b) the details of the intended control measures.

(4) The principal hazard management plan must be updated with the following information after the risk assessment has been completed:

(a) methods used to manage the risk of inundation and inrush:

(b) any procedures developed to manage the risk of inundation and inrush when working in an inrush control zone, such as the use of exploratory boreholes:

(c) relevant details of the plan of the mining operation.

Mine shafts and winding systems

77 Principal hazard management plans for mine shafts and winding systems

(1) A principal hazard management plan for mine shafts and winding systems must be based on an assessment of the following matters:

(a) the stability and integrity of the shaft:

(b) the potential for fires developing in the underground parts of the mining operation, the shaft, or the vicinity of the winding engine:

(c) the potential for any unintended or uncontrolled movement of the conveyances within the shaft:

(d) the potential for a detached conveyance to fall down the shaft:

(e) the potential for any person, plant, material, or support structure to fall into, or within, the shaft:

(f) the potential for failure of, or damage to, safety-related plant and controls, including—

(i) ropes bearing the weight of the shaft conveyance; and

(ii) controls and limiting devices to prevent the shaft conveyance from exceeding safe limits (including winding speed, and the top and bottom ends of the shaft) and any other relevant limits:

(iii) measures to—

(A) detect and prevent slack rope, drum slip, or tail rope malfunctions; and

(B) stop the winding engine in the event that a malfunction occurs; and

(iv) braking system (including emergency brakes) and measures preventing unrestrained or uncontrolled descent of a shaft conveyance; and

(v) warning systems for any emergency in the shaft conveyance; and

(vi) communication systems:

(g) the potential for injury to any person in a shaft conveyance from any material—

(i) being carried in the shaft conveyance; or

(ii) falling from a shaft conveyance:

(h) systems ensuring that all persons can escape from a stalled shaft conveyance:

(i) any other relevant matter.

(2) A principal hazard management plan for mine shafts and winding systems must, at a minimum, provide for the following:

(a) the measures to be used to eliminate, isolate, or minimise—

(i) the occurrence of fires in a shaft; and

(ii) the unintended movement or falling of people, plant, substance, or any other material or object:

(b) a description of the winding systems to be used, including the ropes or other means that will enable the conveyance to carry the weight that it will be expected to carry:

(c) the control measures that will ensure that every winding system at the mining operation remains in a safe condition:

(d) the measures to—

(i) prevent and detect malfunction in the winding engine and associated plant; and

(ii) stop the winding engine in the event of any slack rope, drum slip, or tail rope:

(e) the means for any person to escape from a stalled shaft conveyance:

(f) the means of communication between the winding engine room, shaft conveyances that carry people, and the entrance to every shaft in use:

(g) the means to prevent uncontrolled contact between shaft conveyances, other equipment installed in the shaft, and the sides of the shaft:

(h) requirements for regular testing and inspection of the winding system and its components:

(i) the means of preventing hazards materialising from the design, construction, manufacture, installation, commissioning, maintenance, testing, repair, use, decommissioning, and disposal of mine shafts and winding systems:

(j) the means by which the mining operation would manage any hazards that could arise in relation to mine shafts and winding systems.

78 Additional requirements for principal hazard management plans in relation to automatic winding systems

In addition to the requirements in regulation 77, for a mining operation with an automatic winding system, a principal hazard management plan for mine shafts and winding systems must include the following:

(a) the measures to monitor the winding engine from outside the winding engine room:

(b) the warning systems to alert all persons at the mining operation of any emergency in a mine shaft:

(c) the measures to prevent spillage into the shaft during loading of any plant or material onto or into a shaft conveyance.

79 Additional requirements for principal hazard management plans in relation to dual-purpose shafts

In addition to the requirements in regulation 77, for a mining operation with a dual-purpose shaft for conveying materials and persons, the principal hazard management plan must include the following:

(a) the measures to ensure the adequate protection of any person being carried in a shaft conveyance from any material in the shaft or conveyance that may cause injury to that person:

(b) the measures used to prevent any person from being carried in a shaft conveyance while any material is being carried in the shaft conveyance:

(c) the measures to be used to prevent any material being carried in a shaft conveyance from protruding horizontally outside the conveyance:

(d) the measures to ensure that any material being carried in a shaft conveyance is properly secured and will not become unsecured during transportation.

Roads and other vehicle operating areas

80 Principal hazard management plans for roads and other vehicle operating areas

(1) The principal hazard management plan for roads and other vehicle operating areas within the mining operation must, at a minimum, provide for the following:

(a) the measures to be taken to ensure that the design, layout, operation, construction, and maintenance of each road and other vehicle operating area at the mining operation is safe for all authorised users:

(b) the measures to be taken to manage the risks associated with land adjacent to the road or other vehicle operating area at the mining operation:

(c) having regard to the volume and speed of traffic and other relevant matters, the measures to be taken to manage the risks associated with interactions between the following:

(i) vehicles (of the same or different types):

(ii) vehicles and persons (including in parking areas and around earthmoving machinery in operation):

(d) the measures to be taken to manage the risks associated with interactions between mobile plant and other traffic:

(e) the measures to be taken to manage the risks associated with interactions between mobile plant and fixed structures (including overhead and underground power lines, tunnel walls, and roofs):

(f) the measures to be taken to manage the risks associated with the use of remote control vehicles at the mining operation:

(g) the procedures to be followed for the operation and movement of load-shifting equipment:

(h) the listing of prohibited zones, including consideration of whether to add new, or make changes to existing, prohibited zones:

(i) the procedure for discharging loads from fixed or mobile plant:

(j) in relation to dump trucks,—

(i) the design, construction, and maintenance of safety berms, windrows, and bunds on roads used by trucks; and

(ii) the risks of the trucks overturning, and measures to manage those risks; and

(iii) the safe dumping areas and routes; and

(iv) the recommended methods of safe working:

(k) the availability of safe means of transport for mine workers' access to and exit from their place of work within the mining operation:

(l) the conditions for the safe operation of equipment or vehicles transporting people or equipment:

(m) the minimum dimensions and conditions of the roads and other areas on which equipment or vehicles transporting people or equipment are to operate:

(n) the maximum load that may be carried or towed by vehicles and equipment, whether by reference to weight, dimensions, or other criteria:

(o) the rules relating to the safe carriage of persons, including the segregation of people from the load, the provision of seating, and the use of seat belts, other harnesses, or restraint devices:

(p) the measures to be taken for safety of persons working or travelling on or near roads or other areas used by vehicles:

(q) the measures to be taken for safe parking, refuelling (including safe storage of fuel for vehicles), and recharging of vehicles or equipment:

(r) the requirements for periodic inspection and testing of the braking systems of vehicles:

(s) the procedure to be followed before equipment or vehicles transporting people or equipment are operated:

(t) the procedure to be used on the discovery of a defect in equipment or vehicles used, or to be used, for transporting people or equipment.

(2) The site senior executive must ensure that the measures and matters in subclause (1) are determined after the following factors have been taken into account:

(a) the characteristics of the vehicles and other mobile plant to be used in the mining operation:

(b) the conditions of the road or other vehicle operating area in the particular area of the mining operation (including environmental conditions such as the time of day, visibility, temperature, and the effects of weather).

(3) In this regulation, **prohibited zone** means any place in the mining operation where any vehicle (including any remote-operated vehicle), any other mobile plant, or any person must not enter at certain times, or at all times, as provided in a principal hazard management plan and notified at relevant places near the place concerned.

Tips, ponds, and voids

81 Principal hazard management plans for tips, ponds, and voids

The principal hazard management plan in relation to tips, ponds, and voids must, at a minimum, provide for the following:

(a) the procedures and processes to ensure the safe design, construction, and maintenance of any tips, ponds, or voids at the mining operation:

(b) a geotechnical assessment to be carried out commensurate with the type and scale of tipping operations and having regard to—

(i) the underlying geotechnical structure at the location of a tip; and

(ii) the properties of the material being tipped; and

(iii) the creation of any ponds or voids:

(c) roading design and traffic movement connected with tipping operations:

(d) the tipping rules relating to the use of tips:

(e) records to be kept of the materials that have been tipped:

(f) an inspection and monitoring regime.

82 Risk reassessment in relation to tips, ponds, and voids

In addition to the requirements of regulation 55, the site senior executive must ensure that a reassessment of the stability of the tip, pond, or void is carried out by a competent person—

(a) at least once every 2 years after the date the principal hazard management plan is approved by the site senior executive; and

(b) if a tip, pond, or void as constructed deviates from the geotechnical design; and

(c) if a new tip, pond, or void is created.

83 Inspection of tips

If the principal hazard management plan for tips, ponds, and voids requires regular inspections to be carried out, the principal hazard management plan must specify—

(a) the nature and interval of inspections; and

(b) the appointment of a competent person to supervise the conduct of tipping operations, including a requirement that this person supervise every inspections of a tip at the mining operation.

Air quality: managing dust and other airborne contaminants

84 Principal hazard management plans for air quality

(1) The following matters must be considered in the development of the principal hazard management plan for air quality:

(a) the levels of oxygen in the natural or supplied air at the mining operation:

(b) the temperature and humidity of the air at the mining operation:

(c) the types of dust and other contaminants that are likely to be in the air from both natural and introduced sources and that may be hazardous for the health and safety of any mine workers exposed to the dust or contaminants:

(d) the levels of dust and other contaminants in the natural or supplied air at the mining operation:

(e) the length of exposure of mine workers at the mining operation to airborne dust or other contaminants, taking into account such matters as extended shifts and reduced recovery periods between shifts and any other relevant matters.

(2) The principal hazard management plan must, at a minimum, identify the measures that will be taken to—

(a) monitor and assess airborne dust and contaminants at the mine:

(b) regularly monitor the atmosphere at the mining operation to manage hazards associated with unsafe concentrations of oxygen, methane, and other gases in the air:

(c) effectively reduce, dilute, or extract airborne dust and other contaminants, including through the use of appropriate suppression, ventilation, or exhaust extraction systems:

(d) ensure air provided by the ventilation system at the mining operation is of sufficient volume, velocity, and quality to remove airborne dust and contaminants from the mining operation and to maintain a safe and healthy atmosphere at the mining operation:

(e) ensure that the supply of fresh air to the ventilation system used in the underground parts of the mining operation is from the purest source available:

(f) suppress dust that may arise as a result of activities at the mining operation, including through the use of dust collection and dust suppression plant where appropriate.

Fire or explosion

85 Principal hazard management plan for fire or explosion

(1) The following matters must be considered in the development of the principal hazard management plan for fire or explosion:

(a) potential sources of fire and explosion at the mining operation:

(b) potential sources of flammable, combustive, and explosive materials, both natural and introduced, including gas, dust, fuels, solvents, and timber:

(c) potential sources of ignition including equipment, static electricity, electricity, spontaneous combustion, lightning, hot work, and other work practices:

(d) potential for propagation of fire or explosion to other parts of the mining operation:

(e) the use, presence, and storage of flammable and explosive substances including combustible ore, sulphide dust, coal dust, or methane.

(2) The principal hazard management plan for fire or explosion must include—

(a) a description of the potential sources described in subclause (1)(a) to (c) and of the potential for propagation of fire or explosion:

(b) procedures for the use, presence, and storage of flammable and explosive substances:

(c) provision for hot-work procedures, including any restrictions on doing hot work if applicable under regulation 161:

(d) provision for live electrical work procedures, including any restrictions on doing live electrical work if applicable under regulation 195:

(e) details of the type and location of the systems for prevention, early detection, and suppression of fire (including remote monitoring systems) and of the equipment for firefighting at the mining operation:

(f) where a gas monitoring system is in place, provision for the use of portable gas detectors fitted with suitable extension probes to monitor the presence of methane in the event that the gas monitoring system, or part of it, fails or becomes non-operational:

(g) reference to the principal control plan for emergency management and the location of changeover stations, or refuge chambers, where they exist:

(h) in respect of coal mining operations, the methods that will be used to limit the generation of coal dust, which must include the use of dust suppression systems at coal crushers, coal conveyors, and conveyor transfer points.

(3) In the case of an underground coal mining operation, the principal hazard management plan must also set out the methods that will be used to—

(a) minimise the amount of coal dust resulting from the use of mechanical mining systems:

(b) minimise the accumulation of coal dust on roadways and on other surfaces in the roadways, and remove accumulations of coal dust from the roadways and other surfaces:

(c) suppress airborne coal dust and remove it from the workings of the mining operation:

(d) determine the rate of application of stone dust that is necessary to minimise the risk of a coal dust explosion:

(e) suppress coal dust explosions and limit propagation of coal dust explosions to other parts of the mining operation:

(f) monitor and take samples of roadway dust, including any stone dust that has been applied, to ensure that the methods outlined in the principal hazard management plan are adequate and sufficiently implemented to prevent and suppress coal dust explosions.

Explosives

86 Principal hazard management plan for explosives

The principal hazard management plan for explosives must, at a minimum, address the following matters:

(a) transportation of explosives at the mining operation:

(b) explosive precursors:

(c) inspection of and reporting on the safety of equipment used at the mining operation for manufacturing, storing, transporting, and delivering explosives:

(d) the appropriate action to be taken to make safe the equipment mentioned in paragraph (c):

(e) how explosives brought into the mining operation and used at the mining operation will be accounted for:

(f) how explosives will be checked for any deterioration in the explosives and isolated if they have deteriorated:

(g) the establishment of secure storage for explosives at the mining operation, including a system for signing explosives in and out of storage:

(h) in the case of underground mining operations and tunnelling operations, a process to remove explosives from under ground at the operation unless there is an approved facility to store the explosives under ground:

(i) the identification and control of hazards that may arise—

(i) during the charging and firing of explosives; and

(ii) in particular places, including, for example, in a storage bin feeder in which an explosive is to be used to clear a blockage:

(j) the establishment of declared danger zones that no person may enter while blasting operations are taking place:

(k) the procedure to find, recover, and detonate misfired explosives:

(l) a record to be kept of misfired explosives:

(m) a register of people at or providing a service to the mining operation who are approved handlers under the Hazardous Substances and New Organisms Act 1996 to handle explosives:

(n) the co-operation required between the mining operation and any person authorised under the Hazardous Substances and New Organisms Act 1996 regarding the safety of the storage, handling, transportation, and use of explosives at the mining operation, including compliance with any conditions attached to the authorisation under the Hazardous Substances and New Organisms Act 1996 of the person handling the explosive.

Gas outbursts

87 Principal hazard management plan for gas outbursts

(1) The following matters must be considered in the development of the principal hazard management plan for gas outbursts:

(a) the potential for gas to be released into the working areas of a mining operation from natural or introduced sources at concentration levels that could lead to fire, explosion, or asphyxiation:

(b) the nature of the gas that could be released:

(c) the levels of gas in the material being mined:

(d) gas seam pressures.

(2) The following must be undertaken during the development of the principal hazard management plan for gas outbursts:

(a) analysis of samples taken of *in situ* gas content:

(b) geotechnical investigation and analysis:

(c) statistical analysis of the data obtained as part of a technical review undertaken to determine what gas thresholds for safe mining should be applied at the mining operation.

(3) The principal hazard management plan for gas outbursts must, at a minimum, include the following matters:

(a) the determined risk of gas outbursts, measuring such factors as the *in situ* methane and carbon dioxide gas levels per tonne of material:

(b) the specific geological risk features that are able to be identified in the area to be mined:

(c) the control processes to be used to manage the risk of gas outbursts, which must include, but not be limited to, monitoring the following matters (where relevant) and comparing the measurements to the predetermined gas thresholds and mining rates adopted in the plan:

(i) carbon dioxide and methane gas content and desorption rates:

(ii) ventilation:

(iii) gas drainage:

(iv) bore hole surveying:

(v) the rate of development of the workings of the mining operation:

(d) a procedure for work to be authorised by the mine manager before that work first commences in a particular part of the underground parts of the mining operation and at specified intervals following the commencement of work.

(4) The procedure developed as required by subclause (3)(d) must include a requirement for the mine manager, before authorising work, to verify that the information necessary to assess the risk of harm to mine workers from gas outbursts has been obtained and that all necessary control measures have been implemented, including—

(a) requirements (subject to any stricter requirements in Part 7 or 8) for readings and records to be taken at least once every 2 hours of the concentration of gas in the general body of air at the face; and

(b) requirements to continuously identify geological structures; and

(c) provision for the rate of roadway advance to be modified; and

(d) the use of surveys and sample drill holes; and

(e) the training of workers to identify the signs of gas outbursts; and

(f) the training of workers in rescue and escape procedures following outbursts; and

(g) the provision of personal protective equipment to mine workers operating mobile plant.

Spontaneous combustion

88 Appraisal of likelihood of spontaneous combustion to occur required at all underground coal mining operations

(1) The appraisal of an underground coal mining operation as required by regulation 66(1)(a) must, in respect of assessing the likelihood of spontaneous combustion to occur, include, but is not limited to, the following:

(a) an independent test of the coal to be mined at the operation as to its propensity for spontaneous combustion; and

(b) consideration of all sections of the operation and the nature of the operation; and

(c) evaluation of the spontaneous combustion-related history of the operation and any adjacent or prior operations in the same seam and coal measures; and

(d) a review of the experiences of spontaneous combustion at other underground coal mining operations.

(2) The site senior executive must ensure that a determination that there is not the potential for spontaneous combustion to occur at an underground coal mining operation is reviewed at least once every 3 years following the initial determination and in the following situations:

(a) where there is evidence that spontaneous combustion has occurred or may be occurring in a coal seam or in coal that has been extracted from a coal seam at the underground mining operation, regardless of where the extracted coal is located when the evidence of spontaneous combustion is discovered; or

(b) where the workings of the mining operation move into or near another coal seam that has not previously formed part of the assessment of the likelihood of spontaneous combustion to occur at the mining operation; or

(c) whenever an audit of the health and safety management system, or any part of it, indicates that the likelihood of spontaneous combustion occurring at the underground coal mining operation should be reassessed; or

(d) a site health and safety representative or industry health and safety representative requests the review.

89 Ongoing review of information about spontaneous combustion

In addition to the requirements of regulation 69(3), the following must be assessed when a principal hazard management plan for spontaneous combustion is reviewed under regulations 69(1):

(a) available information about spontaneous combustion at underground coal mining operations; and

(b) emerging technology regarding the control of spontaneous combustion in underground coal mines.

90 Principal hazard management plan for spontaneous combustion

The principal hazard management plan for spontaneous combustion must, at a minimum, include the following matters:

(a) a description of the characteristics of the operation as they relate to the control of spontaneous combustion at the operation:

(b) an inspection programme for spontaneous combustion that includes taking recordings and making a written report on findings:

(c) the means to ensure all mine workers are trained in the standards and work practices that may contribute to, and in the early detection of, spontaneous combustion:

(d) a description of the controls in place at the mining operation to eliminate, isolate, or minimise spontaneous combustion:

(e) the details of the monitoring programme to determine when the controls referred to in paragraphs (f) and (g) must be used, including—

(i) early detection of spontaneous combustion using gas analysis and sensory indicators:

(ii) the locations for continuous monitoring of gas to take place:

(iii) the location and calibration of gas monitoring instruments:

(iv) monitoring of air flow rates and pressure differentials in the underground parts of the mining operation:

(f) the details of the actions to be taken in response to a spontaneous combustion event, which must include—

(i) the procedure for withdrawing mine workers from the underground parts of the mining operation; and

(ii) the particular responsibilities and competencies required of mine workers responding to the event:

(g) the procedure or processes for emergency sealing of a part or parts of the underground parts of the mining operation in response to a spontaneous combustion event, including, but not limited to, the details of the sealing procedures and seal design required to comply with Part 8:

(h) the minimum amount and type of materials required for the construction of emergency seals to be kept at the mining operation, or guaranteed to be readily available to the mining operation, at all times:

(i) the details of any corrective action to be taken when non-conformance with the principal hazard management plan is identified.

91 Recording of spontaneous combustion events

(1) The mine operator must ensure that a record is kept of—

(a) any spontaneous combustion events that occur at or in the vicinity of the mining operation; and

(b) issues, decisions, and actions, and the consequences of those actions, that arise from or are taken as a result of every spontaneous combustion event; and

(c) the spontaneous combustion characteristics specific to the mining operation; and

(d) all variations from the principal hazard management plan, the causes of non-conformance, and action taken to correct variations.

(2) The mine operator must ensure that the record required by subclause (1) is—

(a) made available on request to an inspector, a site health and safety representative, or an industry health and safety representative; and

(b) kept for at least 12 months from the date on which the mining operation is abandoned.

Part 4
Principal control plans

92 Site senior executive responsible for having principal control plans

If a subpart of this Part applies to a mining operation, the site senior executive must ensure that there is a principal control plan for the mining operation that complies with that subpart.

93 General purpose of principal control plans

The purpose of a principal control plan is to document—

(a) the systems and processes in place at the mining operation to manage hazards at the operation; and

(b) the measures that are necessary to manage principal hazards at the mining operation.

94 Review and revision of principal control plans

(1) In addition to the requirements of regulation 58, the site senior executive must ensure that each principal control plan is reviewed at least once every 2 years after the date on which the principal control plan is approved by the site senior executive.

(2) In addition to the requirements of regulation 59, the site senior executive must ensure that a principal control plan is reviewed after—

(a) the occurrence of an accident at the mining operation involving any hazard that the principal control plan was intended to manage:

(b) a material change in the management structure at the mining operation that may affect the principal control plan:

(c) a material change in plant used or installed at the mining operation that may affect the principal control plan:

(d) the occurrence of any other event identified in a principal control plan as requiring a review of the plan.

(3) In addition to the requirements of regulation 61, the mine operator must ensure that records of all reviews and revisions of principal control plans are kept for at least 12 months from the date on which the mining operation is abandoned.

(4) The mine operator must, on request, provide records relating to a review of a principal control plan to an inspector or a site health and safety representative.

95 Audits of principal control plans

(1) The mine operator must engage, and pay for, a competent person to carry out an independent external audit of all principal control plans, ensuring that—

(a) external audits are carried out once every 3 years after the date the principal control plan is approved by the site senior executive.; and

(b) the external auditors are independent of the mining operation.

(2) In addition to the requirements of regulation 61, the mine operator must ensure that results of all audits of principal control plans are kept for at least 12 months from the date on which the mining operation is abandoned.

Subpart 1—Mechanical engineering

96 Application

This subpart applies to any mining operation where 1 or more principal hazards have been identified that may involve hazards or controls of a mechanical type.

97 Risk assessment in relation to mechanical engineering control plan

The following matters must be considered when developing the mechanical engineering control plan:

(a) the hazards presented by mechanical equipment, plant and installations over their lifetime:

(b) the potential for mine workers to be harmed by sources of stored energy, which is energy associated with mechanical equipment, plant, and installations other than electrical energy:

(c) the measures required to prevent the uncontrolled release of stored energy and to prevent the unintended operation of mechanical plant and installations, including mechanical plant and installations restarting on restoration of the supply of electricity:

(d) the potential for, and need to prevent, catastrophic failure of mechanical equipment, plant, or installations:

(e) the potential for, and need to prevent, fires being initiated or fuelled by mechanical equipment, plant, or installations:

(f) the potential for, and need to prevent, cutting equipment acting as an ignition source for gas or coal dust explosions:

(g) the potential for, and need to minimise, exposure of mine workers to toxic or harmful materials associated with mechanical plant and installations:

(h) the need for safeguards for mechanical plant and installations to have a probability of failure appropriate to the degree of risk posed by the mechanical plant or installation to which they relate:

(i) in the case of an underground coal mining operation, the potential for, and need to prevent, stored energy providing a source of ignition for gas or coal dust explosions:

(j) any other matter that deals with the safe management of mechanical plant and installations.

98 Mechanical engineering control plan

The mechanical engineering control plan must, at a minimum, address the following matters:

(a) the standards of engineering practice to be followed at the mining operation regarding mechanical plant and installations throughout their life cycle, including, but not limited to, the following:

(i) arrangements for the acquisition and operation of fit-for-purpose mechanical plant and installations:

(ii) inspection and testing systems to ensure mechanical plant and installations are and remain safe to operate:

(iii) arrangements for the maintenance, repair, and alteration of mechanical plant and installations:

(iv) arrangements for the commissioning of mechanical plant and installations and for such commissioning to be documented:

(v) the competencies required of mine workers who may deal with mechanical plant and installations during the life cycle of the equipment, plant, and installations at the mining operation:

(vi) arrangements for the mine workers installing, commissioning, maintaining, and repairing mechanical plant and installations to be supervised by competent persons:

(vii) safe work procedures for mine workers who may deal with mechanical plant and installations during the life cycle of the equipment, plant, and installations at the operation:

(viii) the identification, assessment, rectification, and management of defects in mechanical plant and installations:

(b) the safe operation of conveyors, winding system, mobile plant, and dredges:

(c) the safety of mechanical plant and installations:

(d) the fitting of appropriate automatic fire suppression and engine or fuel pump shutdown systems to safety-critical equipment and all underground diesel engines:

(e) the fitting of heat detection and automatic trip sensors on safety-critical mechanical components to ensure they stop operating if they may become a danger to health and safety:

(f) the fitting of devices to protect the operator of mobile plant from the hazards involving mobile plant overturning, objects falling on or coming into contact with the operator, and the operator being ejected from the seat, in the form of the following:

(i) rollover protection and falling object protection on mobile plant that is suitable for the mining operation:

(ii) seat belts or other devices used to restrain the operator on mobile plant:

(iii) protective canopies on mobile plant working under an unsupported roof when they are controlled by an on-board operator:

(g) the safe use and storage of pressurised fluids (including managing the hazards associated with compressed air and pressurised hydraulic fluids):

(h) means for the prevention, detection, and suppression of fires on mobile plant and conveyors:

(i) the control of diesel engine plant and installations, including the following:

(i) limiting the number of diesel engines permitted underground in any underground mining operation or tunnelling operation consistent with the safe operation of the mining operation and capacity of the ventilation system to reduce exhaust emissions to an acceptable level:

(ii) limiting the use of diesel engine plant and installations in the underground parts of an underground coal mining operation to diesel engine plant and installations that are approved for use in an underground coal mining operation:

(iii) where diesel engines are used on plant underground, the fitting of such plant with steel fuel tanks, automatic fire suppression of adequate delivery means and capacity, and a ready method of battery isolation:

(iv) the maintenance of explosion-protected plant in an explosion-protected state:

(j) the use of fire-resistant hydraulic fluids in high-risk applications underground in an underground mining operation or tunnelling operation:

(k) the engine management systems used to control diesel pollutants emitted underground in an underground mining operation or tunnelling operation:

(l) the arrangements for hot work to be done safely, including an approval system for hot work to be done if the mining operation is an underground coal mining operation or an underground metalliferous mining operation or tunnelling operation where methane has been detected.

Subpart 2—Electrical engineering

99 Application

This subpart applies to—

(a) any mining operation where 1 or more principal hazards have been identified that may involve hazards or controls of an electrical type; and

(b) any underground mining operation or tunnelling operation.

100 Electrical engineering control plan

(1) The electrical engineering control plan must, at a minimum, address the following matters:

(a) the prevention of harm to people from sources of electrical energy:

(b) the prevention of fires being ignited by electrical energy:

(c) the prevention of electrical plant being unintentionally operated:

(d) the provision of electrical safeguards for electrical and non-electrical hazards with a probability of failure appropriate to the likelihood of the hazard occurring and the severity of harm that could result:

(e) the competencies required of mine workers carrying out electrical work at the mining operation:

(f) the reliability of electrical plant and installations used in the monitoring and control of hazards and of electronic communication equipment:

(g) the use of a maintenance management system that includes the keeping of commissioning, inspection, and test reports and certification documentation of electrical plant and installations throughout the life cycle of the plant and installations:

(h) safe working practices for working on high voltage installations:

(i) any other requirements of these regulations relating to the management of the safety of electrical plant and installations and electrical engineering practices, and any requirements of regulations made under the Electricity Act 1992 relevant to the use of electricity at the mining operation.

(2) In the case of an underground mining operation or tunnelling operation, the electrical engineering control plan must, in addition to the matters in subclause (1), include provision for—

(a) the design, installation, operation, and maintenance of electrical plant and installations at the mining operation, to minimise the potential impacts from voltage rise due to lightning, static electricity, voltage surges and other transient voltages to within acceptable limits, including—

(i) the prevention of the ignition of gas by a static charge:

(ii) the prevention of the effects of lightning being transferred to the underground parts of the mining operation:

(b) the safe operation of every electrical control system at the mining operation under all operating conditions, including instability or failure of the electricity supply:

(c) the isolation of the supply of electricity to all electrical plant or installations in the event of—

(i) unsafe electrical plant or installations being detected; or

(ii) unsafe electrical practices being detected:

(d) the isolation of the supply of electricity to any particular item of electrical plant or to any installation in the event that a failure to maintain that electrical plant or installation in accordance with the electrical engineering control plan is detected:

(e) reasonable access to works by people undertaking installation, maintenance, or emergency work for those works:

(f) the safety of any person undertaking installation, maintenance, or emergency work on works:

(g) specific procedures for the following:

(i) use of electric welding plant:

(ii) use of electrical test equipment, including instruments:

(iii) work near overhead power lines and cables:

(iv) treatment of electric shocks and electric burns:

(h) the security and maintenance of the mining operation's electrical control system software and control circuits, including—

(i) controlling the modification of the software and circuits:

(ii) keeping records of any modifications:

(i) the safe use of lasers, including fibre-optic equipment at the mining operation.

(3) In the case of an underground coal mining operation, the electrical engineering control plan must, in addition to the matters in subclauses (1) and (2), provide for—

(a) the prevention of electrical energy acting as an ignition source for gas or coal dust explosions:

(b) for each explosion risk zone, ensuring the use only of electrical plant and installations, including cables and electrical plant on diesel vehicles, that are appropriate to the explosion risk zone in which they are located or being used:

(c) the approval system under which live electrical work may be carried out:

(d) the isolation of the supply of electricity to the underground parts of the mining operation, but not the supply to safety-critical equipment, in the event of the following circumstances:

(i) the presence of methane levels at or above,—

(A) in an NERZ, 0.5%:

(B) in an ERZ1, 1.25%:

(ii) if ventilation falls below the specified quantity set by the electrical engineering control plan:

(e) the safe restoration of the supply of electricity to the underground parts of the mining operation by a competent person:

(f) the plant and procedures used to ensure that, in the event of a failure of the main ventilation system, the supply of electricity entering the underground parts of the mining operation (other than power to plant or installations that have been designed so that they are incapable of producing heat or sparks sufficient to ignite an explosive atmosphere)—

(i) is automatically and systematically isolated:

(ii) is incapable of being restored before the main ventilation system is repaired and restarted:

(iii) is not restored until a competent person determines it is safe to do so.

(4) For the purpose of this regulation, **works** has the meaning given to it in section 2 of the Electricity Act 1992.

Subpart 3—Ventilation

101 Application

This subpart applies to any underground mining operation or tunnelling operation.

102 Ventilation control plan

(1) The ventilation control plan must, at a minimum, address the following matters:

(a) the installation of ventilation control devices to control the supply of ventilation to the underground parts of the mining operation and the means used to ensure that ventilation control devices are not interfered with:

(b) the development of procedures for the construction, installation, use, and maintenance of ventilation control devices at the mining operation:

(c) the placement of the main fans, and provision of other devices for a main fan, such as measuring or monitoring devices:

(d) the maintenance of return airways in a suitable condition so that they are accessible to those who must inspect them or maintain them or travel through them in an emergency:

(e) the competencies of mine workers who operate, maintain, or adjust any part or the whole of the ventilation system at the mining operation:

(f) the processes that will ensure that only mine workers with the required competencies operate, maintain, or adjust any part or the whole of the ventilation system at the mining operation:

(g) the means by which heat stress conditions will be monitored and controlled:

(h) reporting procedures relating to ventilation:

(i) the maintenance of ventilation records and plans:

(j) if it is possible that an area or areas of the underground parts of the mining operation may need to be sealed, the manner of sealing such areas, and the precautions to be taken:

(k) ensuring that no person enters any area of the mining operation that is sealed, disused, or otherwise not ventilated:

(l) the procedures to be followed in the event of a failure of a part or the whole of the main ventilation system at the mining operation and, where considered necessary, the safe withdrawal of people from underground in the mining operation.

(2) In the case of an underground mining operation or tunnelling operation, the ventilation control plan must, in addition to the matters in subclause (1), address the following matters:

(a) how the exposure of mine workers to engine pollutants in the atmosphere at the mining operation will be controlled, including—

(i) the provision of sufficient ventilation to dilute harmful exhaust pollutants at the mining operation; and

(ii) regular testing, on at least a monthly basis, of the exhaust material from each diesel engine at the mining operation to verify that the ventilation provided is sufficient to dilute any harmful exhaust pollutants emitted by the engines:

(b) a procedure for the starting of a main fan:

(c) procedures for using the following types of fans, where they form part of the mining operation's ventilation system, including starting and stopping procedures:

(i) auxiliary fans; and

(ii) booster fans; and

(iii) scrubber fans:

(d) the levels of methane at which a methane detector will activate its alarm, and the procedures to be followed when that occurs:

(e) measures to be taken if the effective temperature in the underground parts of the mining operation exceeds 28°C:

(f) providing for the recording of instances referred to in paragraph (e) as part of the health and safety management system:

(g) the procedure regarding the action to be taken when monitoring identifies the presence of noxious gases:

(h) the criteria for determining that ventilation is inadequate in a part or the whole of the underground parts of the mining operation, having regard to the quality, quantity, and velocity of air provided by the ventilation system such that workers must be evacuated from the affected part or the whole of the operation as required by regulation 149:

(i) the procedure in the event that the main ventilation system at the mining operation fails (which, if the operation is ventilated by more than 1 main ventilation fan, means a failure of 1 or more of the fans), including—

(i) the action to be taken to ensure the safety of mine workers if the ventilation system fails in part or totally for at least 30 consecutive minutes; and

(ii) the safe withdrawal of mine workers from the underground parts of the mining operation to a place of safety when it is necessary to withdraw them from the underground parts; and

(iii) how the system that monitors the operation of the main ventilation fan or fans at the mining operation will ensure an alarm is given at the surface part of the mining operation in the event that 1 or more of the main ventilation fans stops.

(3) In the case of an underground coal mining operation, the ventilation control plan must, in addition to the matters in subclauses (1) and (2), address the following matters:

(a) an assessment of potentially explosive gas contained within the coal seam that is being mined:

(b) based on the assessment required by paragraph (a), the establishment of a system for the delivery of adequate ventilation that is designed to maintain the concentration of methane below 0.5% of the general body of air in any production area:

(c) the design, monitoring, and control of the underground ventilation arrangements to ensure that the atmosphere underground in the mining op-

eration is kept within the prescribed limits (including design, monitoring, and control of arrangements required to support air quality, dust, and airborne contaminant management, gas outburst management, spontaneous combustion management, or other hazard management arrangements at the mining operation that are dependent on ventilation):

(d) the development and implementation of a procedure to ventilate the underground parts of the mining operation where work is performed, including specification of the maximum distances from the face where ventilation ducting and brattice lines may be located:

(e) the placement of every main ventilation fan in a location and under such conditions that will prevent the fan being damaged during an explosion occurring underground at the mining operation.

Subpart 4—Emergency management

103 Application

This subpart applies to any mining operation where 1 or more principal hazards have been identified.

104 Consultation with emergency services

When developing an emergency management control plan, the site senior executive must consult—

(a) fire, police, and ambulance emergency services that have responsibility for the area in which the mining operation is located; and

(b) in the case of a coal mining operation, an underground metalliferous mining operation, or a tunnelling operation where a tunnel is intended to be 150 metres or more in length, the Mines Rescue Trust.

105 Emergency management control plan

(1) The emergency management control plan must, at a minimum, address the following matters:

(a) the co-ordination and control of emergencies at the mining operation:

(b) the people (or positions) at the mining operation who, or that, will have responsibilities in relation to emergencies at the mining operation, and the detail of those responsibilities:

(c) the events that trigger the activation of the plan:

(d) the use of communication systems in emergencies at the mining operation:

(e) the giving of timely notice, information, and warnings about emergencies to anyone potentially affected by an emergency at the mining operation, including to the persons nominated as next of kin by mine workers:

(f) measures to be taken to isolate an area of the mining operation affected by an emergency:

(g) the availability of the Mines Rescue Trust and other emergency services to respond to an emergency at the mining operation:

(h) the means to locate and account for people at the mining operation in the event of an emergency at the mining operation:

(i) the maintenance of an accurate record of all people underground at a mining operation at all times and their likely location, and the availability of that record for the purposes of responding to emergencies at the mining operation:

(j) the evacuation of the mining operation in an emergency, including the conditions that will prompt withdrawal of mine workers from the mining operation where there is an imminent risk of harm to mine workers:

(k) appropriate transportation from the mining operation:

(l) first-aid arrangements at the mining operation, including first-aid equipment, facilities, and services and the mine workers who are qualified to provide first aid:

(m) provision for all aspects of firefighting, including adequate and compatible firefighting equipment, procedures for firefighting, and training mine workers in firefighting:

(n) a procedure to ensure prompt notification of all relevant emergency services and the Mines Rescue Trust.

(2) In the case of an underground mining operation or tunnelling operation, the emergency management control plan must, in addition to the matters in subclause (1), include provision for ensuring—

(a) there is an effective means of communicating between the surface of the mining operation and any part of the mining operation where people may be located underground; and

(b) the availability of a suitable number of people trained in mines rescue who will be able to respond to an emergency at a mining operation; and

(c) there is adequately maintained equipment at the mining operation that will—

(i) allow for rapid and continuous rescue operations to take place at the mining operation in conditions of reduced visibility and irrespirable and irritant atmospheres; and

(ii) assist the escape or safe recovery of any mine worker or other person from a mining operation where necessary; and

(d) the safe escape of people from underground in the mining operation through conditions of reduced visibility and irrespirable and irritant at-

mospheres (including adequately maintained self-rescuers and other facilities to aid escape where appropriate); and

(e) there is an appropriate means of escape to the surface part of the mining operation; and

(f) the maintenance of an up-to-date plan of—

(i) the exits from the underground parts of the mining operation; and

(ii) the changeover stations and refuges in the underground parts of the mining operation.

(3) In the case of an underground coal mining operation, the emergency management control plan must, in addition to the matters in subclauses (1) and (2), include the processes for—

(a) safely sealing the whole of the underground parts of the mining operation in an emergency; and

(b) the safe use of inertisation equipment.

106 Testing, etc, of emergency management control plan

(1) In addition to the requirements of regulation 69, the site senior executive must ensure that—

(a) the emergency management control plan is regularly tested—

(i) using practice drills; and

(ii) involving the services referred to in regulation 104; and

(b) mine workers are provided with training in the emergency management control plan and that the provision of this training is recorded.

(2) The mine operator must ensure that the mining operation is provided with adequate resources to—

(a) effectively implement the emergency management control plan; and

(b) keep facilities and equipment regularly inspected and maintained in a fully operational condition.

(3) In addition to the requirements of regulation 62, the site senior executive must ensure that a copy of the current emergency management control plan is given to the Mines Rescue Trust, where relevant, and other emergency services referred to in regulation 104.

Subpart 5—Worker health

107 Application

This subpart applies to any mining operation where 1 or more principal hazards have been identified that may have long-term effects on the health of mine workers.

108 Worker health control plan

(1) The worker health control plan must, at a minimum, address how the following hazards are to be monitored and controlled where they are present at the operation:

(a) noise:

(b) vibration:

(c) dust, including asbestos dust, coal dust, silica dust, or mixed dust (being dust that contains mixtures of more than 1 different kind of dust):

(d) diesel particulates:

(e) fumes, including exhaust fumes, welding fumes and other fumes arising from metallic sources:

(f) temperature, including extreme hot and cold temperatures, and humidity:

(g) changes in atmospheric pressure:

(h) manual handling and lifting:

(i) hours of work and fatigue:

(j) psychosocial hazards:

(k) ultraviolet radiation:

(l) ionising radiation:

(m) biological hazards:

(n) any other hazard that may adversely affect the health of mine workers who work at the mining operation.

(2) The worker health control plan must also—

(a) provide for the development of strategies (proportionate to the hazards present at the mining operation and to how a mine worker's behaviour may affect the worker's safety or the safety of others at the mining operation) to deal with fatigue or consumption of drugs and alcohol; and

(b) set out a detailed process for obtaining urgent medical treatment for mine workers who suffer serious harm at the mining operation, taking into account the nature of the terrain where the mining operation is located and the remoteness of the mining operation from the nearest hospital or other place where medical assistance may be provided.

Part 5
Worker participation systems

109 Default worker participation system

The provisions in Schedule 3 are the prescribed provisions for the purposes of section 19U of the Act.

110 Process for election of site health and safety representatives

(1) The provisions in subclauses (2) and (3) are the prescribed provisions for the purposes of section 19V(1) of the Act.

(2) An election for a site health and safety representative must—

(a) involve only candidates who—

(i) work sufficiently regularly and for a sufficient duration to enable them to carry out their functions effectively; and

(ii) have worked for a minimum of 2 years in a mining operation of the kind at which the person will be a site health and safety representative; and

(iii) are willing to take on the position; and

(b) be conducted through a secret ballot; and

(c) give all mine workers, or all mine workers in a relevant grouping for the purposes of section 19R(5) of the Act, a reasonable opportunity to vote; and

(d) be determined by the wishes of the majority of those who vote.

(3) An election is not required if—

(a) there is only 1 candidate for a position, in which case the candidate automatically fills the position; or

(b) there are no candidates for a position, in which case the position is not filled.

111 Competency requirements for appointment as industry health and safety representative

(1) An industry health and safety representative must hold at least 1 of the following certificates of competence:

(a) first-class coal mine manager:

(b) coal mine underviewer:

(c) coal mine deputy.

(2) In addition to the requirements of subclause (1), an industry health and safety representative must have successfully completed any other competency requirements for an industry health and safety representative that are prescribed by WorkSafe under regulation 34.

112 Form of identity cards

(1) This regulation applies to an identity card that WorkSafe is required to give to an industry health and safety representative under section 19ZY of the Act.

(2) The front of the identity card must—

(a) clearly identify the representative as an industry health and safety representative; and

(b) display the following information:

(i) a recent photograph of the representative; and

(ii) the representative's full name; and

(iii) the name of the union or group of mine workers that appointed the representative.

Information required in relation to appointment of industry health and safety representative

113 Notice to WorkSafe in relation to appointment of industry health and safety representative

The information required to be given for the purpose of section 19ZV(b) of the Act is—

(a) the name of the industry health and safety representative; and

(b) the contact details of the representative, including telephone numbers, a physical address (which need not be the person's residential address), and email addresses (if any); and

(c) the date of appointment of the representative; and

(d) if the representative was appointed by a union, the name and contact details of the union, including telephone numbers, physical addresses, and email addresses (if any); and

(e) if the representative was appointed by a group of mine workers, the name and contact details of a person or persons who may be contacted on behalf of the group about the appointment of the representative, including telephone numbers, physical addresses, and email addresses (if any); and

(f) evidence that the industry health and safety representative meets the requirements of regulation 111.

Register of industry health and safety representatives

114 Register of industry health and safety representatives

The information required to be contained in the register required under section 19ZZB of the Act is as follows:

(a) the name of the industry health and safety representative; and

(b) the contact details of the representative, including telephone numbers, a physical address (which need not be the person's residential address) and email addresses (if any); and

(c) the date of appointment of the representative; and

(d) if the representative was appointed by a union, the name and contact details of the union, including telephone numbers, physical addresses, and email addresses (if any); and

(e) if the representative was appointed by a group of mine workers, the name and contact details of a person or persons who may be contacted on behalf of the group about the appointment of the representative, including telephone numbers, physical addresses and email addresses (if any).

Action following reporting of hazard by mine worker

115 Mine operator must investigate reported hazard

(1) If a mine worker reports the existence of a hazard in the mining operation, including (without limitation) any action done or not done in contravention of any system, procedure, or other risk-control measure in place at the mining operation to control a hazard, the mine operator must ensure that the report is investigated.

(2) The investigation must be completed as soon as practicable, having regard to the seriousness of the hazard.

116 Mine operator must advise mine worker of result of investigation

When the investigation required by regulation 115 is completed, the mine operator must ensure that the mine worker who reported the hazard is promptly advised of the result of the investigation.

Part 6
Specific duties in all mining operations

117 Application

This Part applies to all mining operations, unless specifically provided otherwise.

Ground or strata instability

118 Installation of ground or strata support

The mine operator must ensure that—

(a) no person enters an area of the mining operation that has unsupported ground or strata unless that person is installing or supervising the installation of ground or strata support; and

(b) where any mine worker who is installing or supervising the installation of ground or strata support will be exposed to a hazard associated with unsupported ground or strata, temporary support is provided to protect that mine worker from the hazard.

119 Obligations relating to ground or strata support

The manager must ensure—

(a) that suitable ground or strata support methods are designed and implemented for all working areas, in accordance with regulation 118; and

(b) that plans showing the ground or strata support arrangements put in place are displayed in locations readily accessible to all mine workers.

Roads and other vehicle operating areas

120 Roads and other vehicle operating areas

The mine operator must ensure that the following are given adequate consideration in the design, layout, operation, construction, and maintenance of each road within the mining operation:

(a) the grade and width of the road:

(b) the drainage system for the road:

(c) the characteristics of the mobile plant to be used at the mine, including stopping distances, manoeuvrability, operating speeds, driver position, and remote control:

(d) the movement of mobile plant when forming dumps or stockpiles:

(e) the interaction between light and heavy vehicles at the mining operation.

121 Operation of mobile plant by authorised mine workers only

The mine operator must ensure that no mobile plant is operated at the mining operation except by a competent person who is authorised in writing by the mine operator to do so.

Defects discovered during inspection of tips

122 Defects discovered during inspection of tips

(1) The mine operator must ensure that any person who carries out an inspection of a tip at the mining operation—

(a) makes a written record of all defects discovered during the inspection; and

(b) informs the mine manager of the defects that require immediate rectification.

(2) The mine operator must ensure that a written record is made of the action taken to remedy any defect in a tip discovered during an inspection of the tip.

(3) The mine operator must ensure that the records required by subclauses (1)(a) and (2) are kept as part of the health and safety management system.

Explosives

123 Explosives

(1) The mine operator must ensure that—

(a) no person uses, handles, or issues explosives at the mining operation unless the person meets the requirements of an approved handler for the purposes of the Hazardous Substances and New Organisms Act 1996:

(b) explosives used at the mining operation are—

(i) authorised for use by the mine operator:

(ii) stable:

(iii) fit for their intended use:

(iv) insensitive to shock, sparks, friction, and the environment in which they will be stored, transported, and used:

(v) simple to store, use, transport, and control:

(c) every person who designs or initiates a shot does so in a manner that ensures that the shot and any material expelled outside the declared danger zone do not cause harm to any person in, or in the vicinity of, the mining operation.

(2) In subclause (1)(c), **declared danger zone** means the area that no person may enter while blasting operations are to take place, established in accordance with the principal hazard management plan for explosives.

Conveyor belts

124 Conveyor belts

(1) The mine operator must ensure that, where a conveyor belt or belts are used at the mining operation, the conveyor belt or belts are—

(a) designed, installed, and used in such a way that will address any hazard that may arise when the conveyor belt is started. This must include the use of pre-start warnings:

(b) fitted with an emergency stop system that can be activated at any point along the length of the conveyor belt accessible by any person:

(c) designed, installed, and used in such a way that will protect any person near or travelling under a conveyor belt from being struck by a falling object or objects:

(d) designed, installed, and used in such a way that will address the hazards arising from the interaction between people and the conveyor belt. This must include provision for the safe crossing of conveyor belts, where they may be crossed:

(e) in the case of an underground metalliferous mining operation or tunnelling operation where no methane has been detected, fitted with certified fire resistant conveyor belting and drum lagging:

(f) in the case of an underground metalliferous mining operation or tunnelling operation where methane has been detected, or an underground coal mining operation, fitted with certified fire resistant and anti-static conveyor belting and drum lagging.

(2) The mine operator must ensure that a written maintenance programme is in place and is complied with for the maintenance of the conveyor belt to ensure that it complies with subclause (1).

Emergency

125 Crush injuries

The mine operator must ensure that there are adequate and appropriate means available at the mining operation to deal with any crush injuries that may occur and to rescue a trapped or injured person.

126 Treatment and transport of sick and injured mine workers

(1) The mine operator must ensure that suitable and sufficient facilities, including first-aid equipment, and mine workers trained in first aid are available at the mining operation to provide first aid to sick or injured mine workers, including in the underground parts of an underground mining operation or tunnelling operation.

(2) The mine operator must ensure that arrangements are in place, or an appropriate vehicle is available at the mining operation, to transport sick or injured workers from the mining operation to a place where they can receive further medical attention if required.

(3) In the case of an underground mining operation or tunnelling operation, the arrangements or vehicle required under subclause (2) must enable the transportation of sick or injured mine workers from the underground parts of the operation to the surface.

127 Resuscitation equipment

The mine operator must ensure that—

(a) suitable resuscitation equipment is available for all parts of the mining operation; and

(b) people trained to use the equipment are available at the mining operation; and

(c) there is a procedure for any mine worker to raise the alarm when resusitation equipment is required.

Worker health monitoring

128 Worker health monitoring

(1) The mine operator must offer medical examinations to each mine worker at the following times:

(a) immediately before the mine worker starts work at the mining operation; and

(b) immediately before the mine worker ceases working at the mining operation, if the mine worker has not been examined within the 12 months before that date; and

(c) periodically throughout the time that the mine worker is working at the mining operation, but no less than once every 5 years.

(2) If a mine worker wishes to be examined, the mine operator must ensure the mine worker is examined, at the expense of the mine operator, by a medical practitioner or nurse chosen after consultation with the mine worker.

(3) The purpose of the examinations is to establish the level of health of the mine worker at each of the points in time specified in subclause (1) as it relates to the work that the worker is performing at the mining operation at that time.

(4) The mine operator must ensure that—

(a) the records of the monitoring done in accordance with this regulation are made available to WorkSafe on request (ensuring that no record identifies, or discloses anything about, any individual mine worker except with the mine worker's consent); and

(b) the records of the monitoring done in accordance with this regulation in relation to each mine worker are kept,—

(i) in the case of any hazard the worker may have been exposed to that is known to have a cumulative or delayed effect, for at least 30 years following the making of the record; and

(ii) in the case of all other hazards, for at least 7 years after the record is made or until the mine worker to whom the record relates stops working at the mining operation, whichever is the later.

129 Records of first aid provided to mine workers

The mine operator must ensure that records of first aid provided to mine workers who are seriously harmed at the mining operation are kept for at least 7 years after the accident concerned.

Part 7
Specific duties in underground mining operations and tunnelling operations

130 Application

This Part applies only to underground mining operations and tunnelling operations, unless specifically provided otherwise.

Ground or strata failure

131 Steps to be taken following ground or strata failure

(1) The mine operator must ensure that,—

(a) in the case of an underground coal mining operation, the underviewer is made aware of any actual or suspected unplanned fall of rock or coal; or

(b) in the case of an underground metalliferous mining operation, the supervisor is made aware of any actual or suspected unplanned fall of rock or coal.

(2) Without limiting the requirements of section 7(2) of the Act or regulation 228, the mine operator must ensure—

(a) that every report by a mine worker about an unplanned fall of rock or coal is assessed to determine whether the fall of rock or coal could have resulted in serious harm to a mine worker had the circumstances been different; and

(b) if the fall of rock or coal could have resulted in serious harm to a mine worker had the circumstances been different, that an investigation is carried out.

(3) If the investigation reveals that the cause of the ground or strata control is attributable, in part or in full, to a ground or strata support design fault, the mine operator must ensure that the design is reviewed by a competent person who—

(a) is independent of the mining operation; and

(b) was not involved in the development of the original ground or strata design.

(4) In addition to the requirements of regulation 61, the mine operator must ensure that the records of any ground or strata failure that caused or had the potential to cause serious harm to any person (including records of the investigation into the causes of the failure) are kept at least until the date that is 12 months from the date on which the mining operation is abandoned.

Inundation and inrush

132 Holes to be kept in advance of working places

(1) If accurate survey information is not available, the mine operator must ensure that drill holes of sufficient length to indicate a dangerous proximity are kept in advance of a working in a mining operation that is within 50 metres of—

(a) old workings; or

(b) a place containing or likely to contain an accumulation of flammable or noxious gases or an accumulation of water or mud.

(2) Subclause (3) applies when a risk assessment determines that it is likely that workings in an underground mining operation or tunnelling operation will break through into a place containing or likely to contain an accumulation of water or material that flows when wet and that the water or material may create a hazard if it flows into the workings.

(3) The mine operator must ensure that the following precautions are observed until conditions in the place are ascertained:

(a) the width of the working is reduced as far as possible; and

(b) a borehole at least 10 metres long is kept constantly extended near the centre of the working face; and

(c) flank boreholes are maintained on each side at intervals of not less than 4.5 metres.

133 Information to workers

The mine operator must ensure that every mine worker is informed of the faces being advanced at the underground mining operation or tunnelling operation and their proximity to adjacent workings, including old workings.

134 Connection to be investigated

The mine operator must ensure that, before an attempt is made to connect workings in an underground mining operation or tunnelling operation to other workings, including old workings, the other workings are investigated to ascertain whether any hazard is present in those workings.

135 Holing into old workings

(1) Every mine worker who inadvertently holes into old workings in an underground mining operation or tunnelling operation must ensure that—

(a) first, if possible, the hole is stopped up immediately; and

(b) secondly, the underviewer, in the case of an underground coal mining operation, or the supervisor, in the case of an underground metalliferous mining operation or tunnelling operation, and then the manager are notified.

(2) The site senior executive must promptly notify WorkSafe of an incident described in subclause (1).

136 Protection against inundation

The mine operator must ensure that, if the workings in an underground mining operation or tunnelling operation are liable to an inundation or an inrush of water or material that flows when wet, such additional chambers, drives, shafts, or other workings are provided as are necessary to ensure that mine workers in an underground mining operation or tunnelling operation can escape safely.

137 Stopping of work

If the mine operator considers that it is not possible to manage an inundation or inrush hazard in a part or the whole of the mining operation, the mine operator must stop all work in the affected part, or the whole, of the mining operation.

Mine shafts and winding systems

138 Equipment for raising and lowering mine workers, coal, minerals, or material

(1) The mine operator must ensure, in relation to every egress required by regulations 170 to 172 that is a shaft, that equipment for raising or lowering mine workers, coal, minerals, or material to or from the surface is—

(a) suitable for the purpose; and

(b) ready for immediate use.

(2) The mine operator must ensure that the requirements in Schedule 4 are complied with in respect of vertical shafts of a depth greater than 60 metres and slopes.

139 Operation of manually operated winders, slope haulage, and hoist equipment

(1) The mine operator must ensure that—

(a) no person operates a manually operated winder or slope haulage or hoist equipment at the mining operation unless the person holds a certificate of competence as a winding engine driver; and

(b) there are a sufficient number of mine workers at the mining operation who are qualified as required by paragraph (a) to operate that equipment on each shift.

(2) The mine operator of a mining operation that uses signals to communicate with the operator of a winding system or slope haulage or hoist equipment must ensure that the health and safety management system for the operation includes a signal code and that the signal code is—

(a) easily accessible to each mine worker at the mining operation:

(b) displayed in clear and direct view of the operator of the winder or slope haulage or hoist equipment:

(c) displayed at every place where a person may contact the operator using the signals code:

(d) notified to WorkSafe.

(3) The mine operator must ensure that every mine worker who may need to use the signals code is provided with training in how to use the code.

Ventilation

140 Separation of airways

(1) If the mining operation has more than 1 main airway, the mine operator must ensure that the airways are separated sufficiently to ensure—

(a) stability; and

(b) ventilation to the standards required by regulation 141(a) and (b).

(2) The mine operator must ensure that no more than 2 temporary stoppings are installed in a line of stoppings that separate an intake airway from a return airway immediately adjacent to the last line of cut-throughs in the panel.

141 Air quality and temperature

The mine operator must ensure, in relation to the underground mining operation or tunnelling operation, that—

(a) there is fresh air at the commencement of every section of the workings that has a working face; and

(b) the humidity of the air is maintained at such a level as to minimise the likelihood of heat stress; and

(c) measurements to ensure compliance with this regulation are made at suitable intervals, and at suitable locations, using methods and measuring devices capable of giving accurate results; and

(d) there is no recirculation of air within a working face other than through a scrubber fan.

142 Measurement of air from fans

(1) The mine operator of an underground coal mining operation must ensure that, at least once in every week, a competent person—

(a) measures the quantity of air being delivered to every working place in the underground parts of the mining operation; and

(b) determines whether air is being recirculated in the underground parts of the mining operation and takes suitable action to stop any such recirculation.

(2) The mine operator of an underground metalliferous mining operation or tunnelling operation must ensure that, at least once in every month, a competent person—

(a) measures the quantity of air being delivered to every working place in the underground parts of the mining operation; and

(b) determines whether air is being recirculated in the underground parts of the mining operation and takes suitable action to stop any such recirculation.

143 Quantity and velocity of air

(1) The mine operator must ensure that—

(a) the volume of air passing through an active working face, other than a longwall working face, is not less than 0.3 cubic metres per second for each square metre of normal development cross-sectional area; and

(b) the volume of air passing through an active longwall working face is not less than 4 cubic metres per second for each metre of extracted height in the face.

(2) The mine operator must ensure, in respect of any underground parts of a mining operation where a mine worker is doing work or may travel, that the air in that part is provided at an adequate quantity and velocity to ensure the mine worker will not be exposed to a concentration of dust that is likely to cause harm to the mine worker.

144 Ventilation fans other than auxiliary fans

The mine operator must ensure that,—

(a) where the main ventilation fan or fans, other than a portable fan that is the main ventilation fan for a tunnelling operation with a single entry tunnel, are on the surface of the mining operation, an effective airlock is provided and maintained on the surface at each shaft or outlet connected to the main ventilation fan or fans that is used for winding or the transport of people, plant, or material; and

(b) each main ventilation fan has the following devices connected to it:

(i) a pressure gauge that continuously indicates the air pressure; and

(ii) a device that continuously indicates and records the volume of air passing through the fan; and

(iii) a device that continuously indicates and records the number of revolutions per minute of the fan; and

(c) each main ventilation fan is fitted with a device that continuously monitors and records the condition of the fan, including the temperature, vibration levels, and static pressure, and that will, when the device detects a significant departure from the fan's normal operating parameters,—

(i) first, trigger a visible alarm; and

(ii) following such period of time as will provide a mine worker with a reasonable opportunity to respond to the alarm, isolate the supply of electricity to the fan if no other action has been taken by a mine worker in response to the departure from normal operating parameters; and

(iii) record the date and time that an alarm is triggered and the supply of electricity is isolated; and

(d) each booster fan installed underground is fitted with a device that continuously monitors and records the condition of the fan, including the temperature, vibration levels, and static pressure, and that will, when the device detects a significant departure from the fan's normal operating parameters,—

(i) first, trigger a visible alarm; and

(ii) following such period of time as will provide a mine worker with a reasonable opportunity to respond to the alarm, isolate the supply of electricity to the fan if no other action has been taken by a mine worker in response to the departure from normal operating parameters; and

(iii) record the date and time that an alarm is triggered and the supply of electricity to the fan is isolated; and

(e) each of the monitoring devices referred to in paragraphs (c) and (d) is designed and installed so that the part of the device that displays the results of the monitoring is located where it can be easily accessed by a mine worker required to check the condition of the fan; and

(f) the devices referred to in paragraphs (b) to (d) are maintained; and

(g) any scrubber fan used at the mining operation is located and operated in a way that prevents the uncontrolled recirculation of air through the fan.

145 Auxiliary fans

The mine operator must ensure that—

(a) no auxiliary fan is installed or used unless the quantity of air reaching it is, at all times, sufficient to ensure that air is not recirculated by the fan; and

(b) every forcing auxiliary fan is installed at least 5 metres from the intake side of the place to be ventilated by the fan; and

(c) every exhaust auxiliary fan is installed at least 5 metres from the return side of the place to be ventilated by the fan; and

(d) when forcing and exhaust auxiliary fans are used in an overlap system to simultaneously ventilate the same face,—

(i) the secondary fan is installed more than 15 metres from the face; and

(ii) the installed capacity of the secondary fan is less than the installed capacity of the primary fan; and

(e) there is installed and maintained with every auxiliary fan an air duct for conducting a sufficient supply of air to and from the face or place to be ventilated; and

(f) every auxiliary fan, whether powered by electricity or otherwise, is constructed in such a way as to prevent the possibility of an accumulation of an electrostatic charge; and

(g) if an auxiliary fan is installed in a place, no mine worker enters or remains in that place while the fan is not operating, unless a competent person has inspected the place and found it to be safe.

146 Additional requirements for auxiliary fans installed in underground coal mining operations

The mine operator of an underground coal mining operation must ensure that—

(a) any auxiliary fan, other than an auxiliary fan powered by compressed air, that is used at the mining operation will switch off automatically if the main ventilation system fails; and

(b) any auxiliary fan powered by compressed air that is used at the mining operation will be de-energised promptly if the main ventilation system fails; and

(c) where 1 auxiliary fan is operating in a panel at the mining operation, the quantity of air flowing to the panel is not less than 30% of the open circuit capacity of the auxiliary fan; and

(d) where 2 or more auxiliary fans are operating in a panel at the mining operation, the quantity of air flowing to the panel is not less than the sum of—

(i) the open circuit capacity of each auxiliary fan operating in the panel; and

(ii) 30% of the open circuit capacity of the largest auxiliary fan operating in the panel.

147 Starting, stopping, etc, of fans

The mine operator must ensure that—

(a) no mine worker starts, stops, removes, or alters a fan that is ventilating a place underground unless the mine worker is authorised by the mine operator to do so; and

(b) before a mine worker starts, stops, removes, or alters a fan that is ventilating a place underground, the mine worker ensures that every other mine worker likely to be affected by the action is notified about it.

148 Ventilation of work areas to be adequate before entry

The mine operator must ensure that—

(a) all areas underground at the mining operation that mine workers are permitted to enter are adequately ventilated before any mine worker may go underground; and

(b) if at any time the requirements of the ventilation control plan are not being met in relation to a part or the whole of the mining operation that is underground, no mine worker enters the affected part or, as the case may be, the whole of the mining operation; and

(c) despite paragraphs (a) and (b), if any area underground that mine workers are permitted to enter is not adequately ventilated, a mine worker may, if authorised by the mine operator, go underground—

(i) to restore ventilation to adequate levels; or

(ii) in the case of an emergency.

149 Withdrawal of mine workers if ventilation inadequate

The mine operator must ensure that, if ventilation is found to be inadequate or a ventilation control device fails in a part or the whole of the mining operation that is underground,—

(a) every mine worker withdraws from the affected part or the whole of the mining operation; and

(b) the mine worker with responsibility for the affected part or parts—

(i) immediately takes such measures as are available to the mine worker to restore adequate ventilation; and

(ii) notifies the ventilation officer.

150 Quantity of air to be measured

The mine operator must ensure that a competent person measures, at least once in every month, the quantity of air—

(a) in the main current; and

(b) in every split; and

(c) at the commencement of the main return airway; and

(d) in each ventilating district; and

(e) at any additional place identified by the mine operator as a hazard.

151 Plan of ventilation system to be updated every month

(1) The mine operator must ensure that a plan of the ventilation system is prepared and updated at least once a month.

(2) The plan must show—

(a) the direction, course, and volume of airflow; and

(b) the location and description of every device used to regulate or distribute air; and

(c) the measurements taken as required by regulation 150.

152 Application of regulation 153

Regulation 153 applies to—

(a) any underground coal mining operation; and

(b) any underground metalliferous mining operation or tunnelling operation where methane has been detected.

153 Ventilation

The mine operator of a mining operation to which this regulation applies must ensure that—

(a) the percentage of methane in the general body of air in the underground parts of the mining operation where a mine worker is or may be present is not more than 2% by volume; and

(b) a quantity of fresh air adequate to ensure that paragraph (a) is complied with is circulated throughout the underground parts of the mining operation—

(i) before a mine worker enters the underground parts of the mining operation; and

(ii) whenever a mine worker is in the mine; and

(c) there is fresh air at the following places:

(i) the commencement of an ERZ1:

(ii) every location that is 100 metres outbye of the most inbye completed line of cross-cuts in a panel or of a longwall or shortwall face; and

(d) no air current passes through any stopping, or any unsealed, abandoned, or worked out area, before ventilating or passing through an active working place; and

(e) the total number of mine workers ordinarily present in a ventilation district or ventilation circuit in the mine is kept to a minimum; and

(f) a competent person measures, at least once in every week, the percentage of methane in the main return and split returns.

154 Exposure to diesel emissions

The mine operator must ensure that—

(a) the design and maintenance of the ventilation system and transport system are such that no mine worker is exposed to diesel emissions that could cause harm to the mine worker; and

(b) if 1 or more diesel engines are being operated in a ventilating current, the volume of air is not less than the greater of—

(i) 0.05 cubic metres per second for each kilowatt of the maximum combined output capability of the engines; and

(ii) 3.5 cubic metres per second.

155 Assessment of hazards associated with fuel additives

The mine operator must ensure that any hazard to mine workers associated with fuel additives used in diesel engines underground at the mining operation is assessed, including by—

(a) comparison testing of underground diesel engines at appropriate load points; and

(b) regular testing of undiluted exhaust emissions, including from the surrounding atmosphere.

Fire and explosion

156 Use of petrol engines prohibited

The mine operator must ensure that no plant with a petrol-driven engine is used underground in the operation.

157 Fire protection and early warning systems

(1) The mine operator must ensure that suitable and sufficient devices are installed in the underground parts of the mining operation to monitor for early signs of fire.

(2) If a device installed as required by subclause (1) detects signs of fire in the underground parts of the mining operation, the device must—

(a) activate an audible alarm that will warn mine workers in the affected part or parts of the mining operation to escape to a place of safety; and

(b) activate an alarm at the surface of the mining operation.

(3) The mine operator must ensure that suitable and sufficient fire extinguishers are provided beside all high-voltage electrical plant and, if a significant risk of fire exists, beside all other electrical plant.

158 Testing for methane

(1) The mine operator must ensure that testing for the presence of methane in the underground parts of the mining operation is carried out—

(a) as often as practicable; and

(b) with a suitable device.

(2) The mine operator must ensure that, in respect of the devices used to test for the presence of methane, suitable procedures are in place dealing with—

(a) their safe use for that purpose; and

(b) their examination and maintenance; and

(c) their regular calibration.

(3) The mine operator must ensure that no locked flame safety lamps are taken into or used in the underground parts of the mining operation.

159 Application of regulations 160 to 162

Regulations 160 to 162 apply to—

(a) any underground coal mining operation; and

(b) any underground metalliferous mining operation or tunnelling operation where methane has been detected.

160 Sparks or naked flames

A mine operator of a mining operation to which this regulation applies must ensure that no device or material, including smoking materials, likely to cause a spark or naked flame is taken into or used in the underground parts of the mining operation.

161 Restrictions on hot work

(1) The mine operator of an underground coal mining operation must ensure that no hot work is done in an ERZ0 at any time.

(2) The mine operator of an underground coal mining operation must ensure that no hot work is done in an NERZ or ERZ1 except under an approval system established as part of a mechanical engineering control plan.

(3) The mine operator of any other mining operation to which this regulation applies must ensure that no hot work is done in the mining operation except under an approval system established as part of a mechanical engineering control plan.

162 Monitoring for methane

The mine operator of a mining operation to which this regulation applies must ensure that monitoring is carried out continuously at every working face where methane has been detected and a mine worker is present.

163 Mine worker must inform person in charge of hazard from methane or noxious gas

(1) If a mine worker knows or suspects that a location in the underground parts of the mining operation constitutes a hazard by reason of the presence of methane or noxious gas, the mine worker must immediately inform,—

(a) in the case of an underground coal mining operation, the underviewer; or

(b) in the case of an underground metalliferous mining operation or tunnelling operation, the supervisor; or

(c) the mine worker responsible for the part of the mining operation that includes the location that constitutes or is suspected to constitute a hazard.

(2) A mine worker of the kind described in subclauses (1)(a) to (c) who is informed that a location in the underground parts of the mining operation may or does constitute a hazard by reason of the presence of methane or noxious gases must inspect the location as soon as practicable and as far as is safely possible.

164 Withdrawal of mine workers when high level of methane present

(1) This regulation applies when the level of methane in the general body of air in a part or the whole of the underground parts of an underground mining operation or tunnelling operation is detected to be 2% by volume or more.

(2) The mine operator must ensure that—

(a) every mine worker in the affected part or parts of the mining operation withdraws from the affected part or parts including, as the case requires, the whole of the underground parts of the mining operation; and

(b) the only person who enters the affected part or parts of the mining operation or, as the case requires, any part of the underground parts of the mining operation, is—

(i) a competent person, to test for the presence of methane; or

(ii) a mine worker, to inquire into the cause of the presence of the methane or to remove the methane; and

(c) no other mine worker enters the affected part or parts of the mining operation, or, as the case requires, any part of the underground parts of the mining operation, until a competent person reports to the manager that it is safe to do so.

165 Combustible material

(1) The mine operator must ensure that any hazards associated with the storage of combustible materials are managed.

(2) Without limiting subclause (1), the mine operator must ensure that flammable materials with a flashpoint of 23°C or lower are not stored underground in the mining operation, unless they are kept in a fireproof room, compartment, or box.

Emergency

166 Competent person at surface when mine workers underground

The mine operator must ensure that at all times when mine workers are underground there is a person above ground at the mining operation who—

(a) is trained to answer alarms; and

(b) is capable of isolating the supply of electricity to the underground parts of the mining operation; and

(c) has authority to take action in the event of an emergency.

167 Emergency contact details

The mine operator must prepare and regularly update a list of emergency contact details for each mine worker.

168 Self-rescuers

(1) The mine operator must ensure that any mine worker who goes underground is issued with a self-contained self-rescuer and carries it with him or her at all times while the mine worker is underground at the mining operation.

(2) The mine operator must ensure that—

(a) all self-rescuers used at the mining operation are provided and maintained in good order and condition; and

(b) any mine worker who goes underground is trained in the use of the self-rescuer provided.

169 Training in use of self-rescuers

The mine operator must ensure that—

(a) any mine worker who goes underground is trained at least once every 3 months on how to don and change over the self-rescuer provided; and

(b) the training in paragraph (a) is carried out in an environment that simulates emergency conditions in the underground parts of the mining operation; and

(c) records are kept of the training provided to mine workers under this regulation.

170 Escapeways in underground coal mining operation

(1) The mine operator of an underground coal mining operation must ensure that the mining operation has at least 2 egresses trafficable on foot (**escapeways**) to the surface that are separated in a way that prevents any reasonably foreseeable event happening in 1 of the escapeways that may stop a person from being able to escape through the other escapeway.

(2) The mine operator must ensure each ERZ1 at the underground coal mining operation in which a mine worker works has 2 escapeways leading to the surface or a refuge.

(3) Subclause (2) does not apply to an ERZ1—

(a) in which an inspection is being carried out under the mining operation's health and safety management system and no other mine worker is working in the ERZ1; or

(b) where the ERZ1 is located in a single-entry drive or shaft that is being sunk.

(4) The mine operator must ensure that at least 1 of the escapeways at the underground coal mining operation is designated as the primary escapeway and is—

(a) an intake airway or a combination of adjacent intake airways; and

(b) separated, as far as is reasonably practicable, from all other roadways by a separation stopping that is anti-static, fire-resistant, and of substantial construction that will ensure there is minimal leakage through the stopping; and

(c) as far as practicable, free from hazards associated with fire; and

(d) trafficable by a vehicle; and

(e) fitted with fire fighting equipment located on, or near, any equipment installed in the escapeway.

171 Escapeways in underground metalliferous mining operations and tunnelling operations

(1) The mine operator of an underground metalliferous mining operation or tunnelling operation must ensure that there are adequate means of escape from the underground parts of the mining operation.

(2) When determining the means of escape from the underground parts of the mining operation, the mine operator must consider—

(a) the need for mine workers to escape from the underground parts of the mining operation during an emergency; and

(b) the inclusion and placement of refuges.

(3) The mine operator must ensure that a record is kept of the process undertaken to determine the means of escape from the underground parts of the mining operation, including the reasons for the final determination.

172 Additional requirements for escapeways in underground metalliferous mining operations

The mine operator of an underground metalliferous mining operation must ensure that, before stoping operations start at the mining operation, the operation has at least 2 egresses trafficable on foot (**escapeways**) that—

(a) are accessible from all stoping operations and lead to the surface; and

(b) are located strategically in response to the hazards that may arise at the mining operation and that will require evacuation; and

(c) allow for the passage of rescuers and rescue equipment, including stretchers; and

(d) are separated in such a way that a reasonably foreseeable event happening in one of the escapeways would not prevent persons escaping through the other escapeway; and

(e) are maintained in a safe, accessible, and useable condition.

173 Changeover stations and refuges

(1) If a mine worker may not be able to escape from the underground parts of the mining operation during an emergency, or the use only of the self-contained self-rescuer provided to a mine worker as required by regulation 168 may not be sufficient to ensure the mine worker is able to escape from the underground parts of the mining operation during an emergency, the mine operator must ensure that the mining operation has 1 or more of the following:

(a) changeover stations:

(b) refuges:

(c) secure areas where mine workers can be protected from harm during the emergency.

(2) Subject to subclause (3), when determining the type, number, and nature of the facilities required by subclause (1), the mine operator must have regard to the nature, complexity, and size of the mining operation and the activities carried out underground.

(3) A changeover station that is intended to be used for mine workers to replace their self-contained self-rescuers must—

(a) have a secure supply of air that is independent of the rest of the underground parts of the mining operation; and

(b) not allow the entry of contaminated air into the changeover station.

174 Navigational aids

(1) The mine operator must ensure that navigational aids are provided marking all pathways to—

(a) the surface; and

(b) changeover stations, if any; and

(c) refuges, if any.

(2) Any mine worker who may be required to use the pathways described in subclause (1) must be made familiar with them.

175 Communications systems

(1) The mine operator must ensure that a communication system is provided that allows for oral communication between people on the surface and in the underground parts of the mining operation during an emergency.

(2) In the case of an underground coal mining operation, the mine operator must ensure that—

(a) the communication system incorporates an adequate backup power supply; and

(b) the components for the system that are installed underground are recognised as being safe to operate in an explosive atmosphere, unless the components are installed in a drift or shaft being driven from the surface in material other than coal.

176 Continued monitoring of atmospheric conditions underground during emergency

(1) The mine operator of an underground coal mining operation must ensure that a system is provided that monitors the atmospheric conditions in the underground parts of the mining operation during an emergency and provides information about those conditions to people on the surface.

(2) The mine operator must ensure that—

(a) the system incorporates an adequate backup power supply; and

(b) the components for the system that are installed underground are recognised as being safe to operate in an explosive atmosphere, unless the components are installed in a drift or shaft being driven from the surface in material other than coal.

Part 8
Specific duties in underground coal mining operations only

177 Application

This Part applies only to underground coal mining operations, unless specifically provided otherwise.

Ventilation

178 Failure of ventilation system

In the event of a failure of the ventilation system to a part or the whole of an underground coal mining operation, the mine operator must ensure that—

(a) the supply of electricity to the underground parts of the mining operation, but not the supply to safety-critical equipment, is isolated as soon as is reasonably practicable; and

(b) every battery-operated mobile plant located in the affected parts of the mining operation is brought out without any delay to—

(i) a main intake airway or main intake airways; or

(ii) a charging or repair station of suitable fireproof construction that is normally ventilated with intake air; and

(c) the supply of electricity is not restored until after the ventilation system has been safely restored and a competent person considers it is safe to restore the supply of electricity.

179 Air across and to working face

The mine operator must ensure that an adequate quantity and velocity of air is delivered across the working face of any production or development place, and within the roadways leading to any working face, to dilute and render harmless any accumulations or layering of methane.

180 Sealed goafs

If an underground coal mining operation has a sealed goaf, the mine operator must ensure that appropriate steps are taken to control any hazards that may be presented or caused by the emission of methane and noxious gases from the sealed goaf, including by—

(a) preventing intake air from travelling across the face of a permanent seal at the mining operation; or

(b) minimising the risks of inrush and leakage of atmospheric contaminants from sealed goaf areas and abandoned or sealed workings into intake airways, which must include—

(i) use of no less than a type C seal; and

(ii) minimising leakage through seals; and

(iii) preventing damage to seals; and

(iv) installing a monitoring device in each intake airway on the return side of the seals over which the intake air passes to detect the intake airway's general body concentration of—

(A) oxygen; and

(B) carbon dioxide, if it is present behind the seal in a general body concentration greater than 3%; and

(C) any other gas that is present behind the seal in a quantity and concentration that is likely to create a hazard if it enters the intake airway adjacent to the seal; and

(v) for longwall workings, installing a monitoring device at the intersection of the longwall face and the intake airway to detect the intake airway's general body concentration of—

(A) oxygen; and

(B) carbon dioxide, if it is present behind the seal in a general body concentration greater than 3%; and

(C) any other gas that is present behind the seal in a quantity and concentration that is likely to create a hazard if it enters the intake airway adjacent to the seal; and

(vi) ensuring that every monitoring device installed as required by subparagraphs (iv) and (v) triggers an alarm to warn every mine worker who may be affected when a gas required to be detected by the device is present at the predetermined concentration.

181 Position and electricity supply of main ventilation fan

(1) The mine operator must ensure that no main ventilation fan is located in the underground parts of the mining operation.

(2) The mine operator must ensure that the supply of electricity to the main ventilation fan does not enter into or travel through the underground parts of the mining operation.

182 Ventilation control devices

The mine operator must ensure that all ventilation control devices, including seals, are designed, constructed, and maintained to meet the design criteria specified in Schedule 5.

183 Standards for sealing

The mine operator must ensure that a seal installed at the mining operation is of the following types or higher:

(a) if the level of naturally occurring methane at the mine is insufficient to reach the lower explosive limit for the gas under any circumstances, type B:

(b) if a mine worker or mine workers may remain underground when an explosive atmosphere exists and there is a possibility of spontaneous combustion, spark, or another ignition source, type D:

(c) in any other situation relating to an underground part of the mining operation, type C:

(d) for sealing the entrance to the underground parts of the mining operation, type E.

Sealing underground coal mining operation

184 Facilities required for sealing

The mine operator must ensure that—

(a) every entrance from the surface to the underground parts of the mining operation is capable of being readily sealed, with an engineered structure capable of withstanding an air blast of 70 kPa from within the underground parts of the mining operation when it is open, at the following locations:

(i) at the surface, without requiring any person to travel in front of the entrance in order to seal it; or

(ii) where the entrance is a vertical shaft,—

(A) at the surface, without requiring any person to travel across the entrance in order to seal it; or

(B) in a roadway at the bottom of the shaft; and

(b) at least 1 entrance from the surface to the underground parts of the mining operation has the facilities available to fit an airlock; and

(c) the seals on the surface of the mining operation are constructed and have appropriate facilities available to support inertisation; and

(d) when sealed, the mining operation has facilities allowing the following:

(i) the use of inertisation equipment from a safe position; and

(ii) monitoring of the atmosphere behind the seal from a safe position; and

(iii) re-entry by people to the underground parts of the mining operation.

185 Notice of intention to seal underground coal mining operation

(1) The mine operator must give notice to WorkSafe of any intention to seal the whole of the underground parts of the mining operation.

(2) Except in case of emergency sealing, the notice must be given, 1 month in advance of the activity taking place.

(3) The notice must include—

(a) the proposed locations of the seals to be installed; and

(b) the proposed sealing procedure; and

(c) a summary of hazards identified and how they will be managed; and

(d) any evidence of the presence of an ignition source in a part or the whole of the underground parts of the mining operation; and

(e) predictions of the rates at which methane and other gases will accumulate in the underground parts of the mining operation; and

(f) the gas monitoring procedures to be carried out during and after the sealing.

(4) If sealing becomes impracticable in the way in which the procedure was described in the notice provided to WorkSafe, the mine operator must—

(a) promptly notify WorkSafe of the changes from the initial proposed method of sealing the underground coal mining operation; and

(b) if the notification under paragraph (a) is not in writing, confirm the notification in writing to WorkSafe as soon as reasonably practicable.

186 Sealing not to be done unless notified

(1) Except as provided in regulation 187, the mine operator must ensure that the whole of the underground parts of a mining operation is not sealed unless WorkSafe has been notified of the intention to seal the mining operation as required by regulation 185.

(2) The mine operator must ensure that the whole of the underground parts of the mining operation is sealed in the way that has been notified to WorkSafe.

187 Emergency sealing

(1) This regulation applies if there is evidence that there is an immediate likelihood of an explosive atmosphere developing in a part or the whole of the underground parts of the mining operation.

(2) The mine operator must ensure that—

(a) a risk appraisal and risk assessment is conducted in relation to the emergency sealing of a part or the whole of the underground parts of the mining operation; and

(b) the emergency sealing is carried out in a manner that manages any potential hazards.

(3) The site senior executive must notify WorkSafe of the intention to seal the part or the whole of the underground parts of the mining operation and must confirm in writing as soon as practicable that the sealing has been carried out.

188 Testing of inertisation equipment

The mine operator must ensure that—

(a) the following facilities at the mining operation are tested at appropriate intervals to ensure that the facilities are capable of being used in an emergency:

(i) every seal required to be used with the inertisation equipment:

(ii) every connection point for using the inertisation equipment; and

(b) the necessary facilities, including water and cleared areas, are available for use with inertisation equipment; and

(c) modelling is carried out at least once a year to ensure that the inertisation points are located in places that will support effective inertisation in an emergency.

Fire and explosion

189 Compressed air

The mine operator must provide for sufficient electrical bonding and earthing of compressed air equipment, hoses, and pipes that are likely while in operation to develop static electrical charges that are capable of causing an electric shock to a person or a spark.

190 Establishment of explosion risk zones

(1) The mine operator must ensure that—

(a) a risk appraisal and risk assessment are conducted to identify the location and type of each explosion risk zone required at the mining operation; and

(b) explosion risk zones are established for the mining operation.

(2) The mine operator may temporarily classify any NERZ at the mining operation as an ERZ0 or an ERZ1.

191 Signposting of explosion risk zones

(1) The mine operator must ensure that—

(a) the boundaries of each explosion risk zone at the mining operation are clearly indicated by signage at each boundary; and

(b) a plan showing the explosion risk zone boundaries is displayed at the surface of the mining operation where mine workers will see it; and

(c) the plan is updated at the end of each shift to reflect any changes to the location of a boundary or boundaries.

(2) In the event that a temporary change in conditions results in a temporary change in the location of the boundary of an explosion risk zone, the signage required by subclause (1) is not required to be changed if the mine operator ensures that appropriate precautions are taken to control mine workers and mobile plant entering an explosion risk zone affected by the temporary change.

192 Signposting of boundaries between explosion risk zones

If a mine worker or mobile plant can physically move through a boundary between an NERZ and an ERZ1 or between an ERZ1 and an ERZ0, the mine operator must ensure that the actual location of the boundary is signposted in each intake airway and vehicle access leading to,—

(a) in respect of a boundary between an NERZ and an ERZ1, the ERZ1; or

(b) in respect of a boundary between an ERZ1 and an ERZ0, the ERZ0.

193 Machinery restrictions in explosion risk zones

The mine operator must ensure that—

(a) no plant, including mobile plant, or installations powered by electricity that are not explosion-protected are used or located in an ERZ0 or an ERZ1; and

(b) all mobile plant powered by electricity or a diesel engine used in an NERZ that is not explosion-protected must be fitted with a device that ensures the mobile plant is automatically shut down if it passes beyond an NERZ; and

(c) no diesel engine is used to power plant, including mobile plant, or installations used or located in an ERZ0; and

(d) no diesel engine that is not explosion-protected is used to power plant, including mobile plant, or installations used or located in an ERZ1.

194 Use of diesel engines in underground coal mining operations

The mine operator must ensure that diesel engines are used to power plant, including mobile plant, or installations in an underground coal mining operation only in accordance with the following requirements:

(a) in respect of plant, including mobile plant, and installations located or used in an NERZ, a diesel engine that is not explosion-protected may be used to power the plant or installation only where—

(i) a risk assessment has been carried out regarding the use of the engine and any risk controls identified by the risk assessment have been implemented; and

(ii) in respect of mobile plant, an automatic system is in place to ensure that the plant cannot enter an ERZ1 or an ERZ0 and that system is either fail-safe or includes multiple redundancy devices; and

(iii) the diesel engine is clearly marked as a non-explosion-protected engine:

(b) in respect of plant, including mobile plant, and installations located or used in an ERZ1, an explosion-protected diesel engine may be used to power the plant or installation only if—

(i) the diesel engine—

(A) has been tested by an accredited testing station in accordance with AS/NZS 3584.2:2008 Diesel engine systems for underground coal mines—Explosion protected; and

(B) is clearly marked with information identifying when the test report was done and by whom; and

(ii) the diesel engine has been assessed by the engine's manufacturer as being safe to use in an ERZ1 and is clearly marked with information identifying that the engine has been assessed as safe to use in an ERZ1, when that assessment was done, and by whom.

195 Restrictions on live electrical work in ERZ0 or ERZ1

The mine operator must ensure that no live electrical work is done in an ERZ0 or ERZ1 except under an approval system established as part of the electrical engineering control plan.

Methane monitors

196 Monitoring for methane at working face

The mine operator must ensure that monitoring for the presence of methane—

(a) is continuous at every working face of the mining operation at which a mine worker is present and is carried out—

(i) as near to the face as possible; and

(ii) at an elevation determined by the principal hazard management plan for fire or explosion; and

(b) is also carried out when required by regulation 162.

197 Methane monitors in intake airways

The mine operator must ensure that—

(a) there is at least 1 methane monitor in each intake airway at the boundary between an NERZ and an ERZ1; and

(b) every methane monitor located at the boundary between an NERZ and an ERZ1 is visible at the boundary and will,—

(i) if the concentration of methane detected in the general body of air at the boundary reaches 0.25% or more, automatically activate a visible alarm; and

(ii) if the concentration of methane detected in the general body of air at the boundary reaches 0.5% or more, automatically isolate the supply of electricity to all plant, other than safety critical equipment, in—

(A) the ERZ1 and the NERZ; or

(B) if the NERZ has been subdivided, the ERZ1 and the subdivided part of the NERZ adjacent to the ERZ1.

198 Methane monitors in return airways

The mine operator must ensure that—

(a) there is at least 1 methane monitor in each main return airway and in each return airway in a ventilation split; and

(b) every methane monitor located in a return airway automatically activates a visible alarm at the surface of the mining operation when the concentration of methane detected in the general body of air in the return airway reaches or exceeds the percentage stated in the ventilation control

plan as the percentage at which the methane detector activates its alarm; and

(c) a record is kept of every occasion that the methane monitor activates a visible alarm as required by paragraph (b).

199 Methane monitors on mobile plant powered by battery or diesel engine

(1) The mine operator must ensure that all mobile plant used in an ERZ1 that is powered by a battery or diesel engine is fitted with a methane monitor that will,—

(a) if the concentration of methane detected in the general body of air around the mobile plant reaches 1% or more, automatically activate a visible alarm to warn the operator of the mobile plant; and

(b) if the concentration of methane detected in the general body of air around the mobile plant reaches 1.25% or more,—

(i) automatically shut down the mobile plant; and

(ii) in the case of mobile plant powered by a diesel engine, automatically prevent the diesel engine from restarting.

(2) The mine operator must ensure that, in the case of non-explosion-protected mobile plant that is powered by a battery or diesel engine and that is fitted with an automatic methane monitor, the mine worker operating the mobile plant immediately parks and shuts down the plant if the methane monitor fails while the mobile plant is in use.

200 Methane monitors on certain mobile plant powered by electricity through trailing or reeling cable

(1) The mine operator must ensure that every coal cutter, continuous miner, tunnel-boring machine, road-heading machine, and longwall shearer used at the mining operation is fitted with a methane monitor that will,—

(a) if the concentration of methane detected in the general body of air around the mobile plant reaches 1% or more, automatically—

(i) activate a visible alarm to warn the operator of the mobile plant; and

(ii) isolate the electricity supply to the cutters:

(b) if the concentration of methane detected in the general body of air around the mobile plant reaches 1.25% or more, automatically isolate the supply of electricity to the trailing cable or reeling cable supplying the mobile plant.

(2) The mine operator must ensure that every mobile bolting machine, loader, load-haul-dump vehicle, and shuttle car used at the mining operation is fitted with a methane monitor that will,—

(a) if the concentration of methane detected in the general body of air around the mobile plant reaches 1% or more, automatically activate a visible alarm to warn the operator of the mobile plant; and

(b) if the concentration of methane detected in the general body of air around the mobile plant reaches 1.25% or more, automatically isolate the supply of electricity to the trailing cable or reeling cable supplying the mobile plant.

201 Monitoring of other mobile plant powered by electricity through trailing or reeling cable

(1) This regulation applies to any mobile plant of a kind other than that specified in regulation 200.

(2) The mine operator must ensure—

(a) that the mobile plant is fitted with a methane monitor that will perform the functions described in regulation 200(2); or

(b) that the mobile plant is recognised as being suitable for use in an ERZO by or under the Electricity (Safety) Regulations 2010; or

(c) in any other case, that any mine worker who detects a concentration of methane in the general body of air that reaches 1.25% or more immediately isolates the supply of electricity to the trailing cable or reeling cable supplying the mobile plant.

202 Auxiliary and booster fans

(1) The mine operator must ensure that each auxiliary and booster fan is fitted with a methane monitor and that,—

(a) if the concentration of methane detected in the general of body of air around an auxiliary fan reaches 1.25% or more, the supply of electricity to the auxiliary fan is automatically isolated; and

(b) if the concentration of methane detected in the general body of air around a booster fan reaches 1.25% or more, the methane monitor automatically activates an audible and visible alarm.

(2) The audibility and visibility of the alarm required by subclause (1)(b) must be sufficient to ensure that necessary action will be taken in response to the alarm.

(3) Nothing in this regulation applies to an auxiliary fan or a booster fan located in a drift or shaft being driven from the surface of a mining operation in material other than coal.

203 Recording and notification of isolation of electricity supply

(1) If the supply of electricity is automatically isolated or mobile plant is shut down as required by any of regulations 197 and 199 to 202 (except to cutters as required by regulation 200(1)(a)(ii)), the mine operator must ensure that a record is kept of the date, time, and location of the event.

(2) If the supply of electricity is automatically isolated as required by regulation 197(b)(ii), the mine operator must ensure that WorkSafe is notified as soon as practicable.

204 Failure of methane monitoring system

(1) This regulation applies if the methane monitoring system fails or becomes non-operational, affecting a part or the whole of the underground parts of the mining operation, and the mining operation does not have—

(a) a procedure for the use of portable monitors to detect methane; or

(b) a sufficient number of portable monitors to continually monitor the affected part or the whole of the underground parts of the mining operation to the extent necessary to ensure that the levels of methane in the affected part or the whole of the underground parts of the mining operation remain below 2%.

(2) The mine operator must ensure that every mine worker underground is withdrawn to a place of safety.

(3) The mine operator must ensure that no mine worker enters or remains in an unsafe part of the underground parts of the mining operation, except to repair or replace the affected parts of the methane monitoring system.

(4) For the purposes of subclause (3), a part or the whole of the underground parts of the mining operation is unsafe if the concentration of methane in the general body of air in that part or the whole of the underground parts of the mining operation cannot be monitored as required by these regulations.

Dust sampling

205 Sampling of roadway dust

(1) The mine operator must ensure that—

(a) dust sampling and analysis is carried out in accordance with this regulation at no less than the following intervals:

(i) for a strip or spot sample of dust in an ERZ0, once a week; and

(ii) for a strip sample of dust in an ERZ1, once a month; and

(iii) for a strip sample of dust in an NERZ, once every 3 months; and

(b) the samples of dust are taken by a competent person from the complete perimeter of the roadway and the structures in it, over a length of roadway of at least 45 metres, and by using strip samples; and

(c) if the dust on the floor of a roadway appears to contain a different content of incombustible material from the dust on the roof and sides of the roadway, the dust on the floor is sampled and tested separately from the dust on the roof and sides of the roadway; and

(d) each sample of the layer of dust is taken from the layer to a depth not greater than 5 millimetres; and

(e) if a location is resampled, the individual strips from which dust is taken for a strip sample are not the same as those from which a previous sample has been taken.

(2) The mine operator must ensure that the analysis of dust samples is carried out in an independent testing facility.

(3) In subclause (1), **strip sample** means the collection of dust from a series of transverse strips of equal width and that are equally spaced not more than 5 metres apart over an area that is at least 1% of the total area sampled.

206 Recording of dust sampling and analysis

The mine operator must ensure that—

(a) the mine worker in charge of the part of the mining operation where a sample of dust was taken is given notice of the results of the analysis of that sample; and

(b) a record is kept of the following information for each roadway dust sample taken at the mining operation:

(i) the date the sample was taken; and

(ii) the location from which the sample was taken; and

(iii) the volume and type of incombustible material in the sample; and

(iv) the method used to analyse the sample; and

(c) the results of the analysis of the dust sample, in particular the volume and type of incombustible material content, are marked on a plan of the mining operation.

207 Minimum content of incombustible material in roadway dust

The mine operator must ensure that the content of incombustible material in roadway dust at the mining operation is kept at or above 80% of the volume of the roadway dust.

208 Mine operator must have standard operating procedure for application of incombustible material to roadway

(1) The mine operator must ensure that a standard operating procedure for the application of incombustible material to roadways is in place to keep the proportion of incombustible material at or above 80% of the volume of roadway dust in every part of the underground parts of the mining operation.

(2) The standing operating procedure required by subclause (1) must be included in the health and safety management system for the mining operation.

209 Requirements for stone-dusting new roads

The mine operator must ensure that—

(a) as soon as a 30-metre length of roadway is driven, that entire length is stone-dusted; and

(b) each new part of the roadway is stone-dusted within 24 hours of the part being driven.

Explosion barriers

210 Explosion barriers

(1) The mine operator must ensure that—

(a) an explosion barrier is installed and maintained in the part of any roadway in a panel, other than a single-entry roadway, containing a conveyor belt; and

(b) an explosion barrier is installed and maintained in the part of any return roadway in a panel, other than a single-entry roadway; and

(c) adequate explosion-suppression measures are installed and maintained in single-entry roadways.

(2) For the purpose of subclause (1), an explosion barrier is taken to be installed in a part of a roadway if the most inbye part of the barrier is in the part of the roadway.

(3) The mine operator must ensure that a risk appraisal and risk assessment are carried out to determine—

(a) the type of the explosion barriers to be installed as required by subclause (1) that will effectively limit the development of, and contain, an ignition of coal dust or methane; and

(b) whether any additional explosion barriers need to be installed, and the type and location of those explosion barriers.

(4) The mine operator must ensure that any explosion barriers installed at the mining operation are designed, constructed, and maintained to prevent, as far as is reasonably practicable, a coal dust explosion in one part of the underground parts of the mining operation from propagating to other parts of the mining operation.

Part 9
Notification and reporting

211 WorkSafe to be notified of commencement, recommencement, installation, or cessation

(1) The mine operator must ensure that—

(a) WorkSafe is notified of the matters specified in subclauses (2) to (5) at the times specified in those subclauses; and

(b) every notification includes details as to—

(i) the name and contact details of the mine operator, including postal and business addresses; and

(ii) the location of the mining operation; and

(iii) the nature of the mining operation; and

(iv) the proposed date of commencement, recommencement, installation, or cessation (including suspension or abandonment); and

(v) the name and contact details of the site senior executive; and

(vi) the name and contact details of a person who can be contacted about the notification to be given under this regulation if the site senior executive is not available.

(2) The first matter is the proposed date of commencement of the mining operation. In the case of a mining operation that operates intermittently, the notification must be given not less than 24 hours before the proposed date of commencement. In any other case, the notification must be given not less than 2 months before the proposed date of commencement.

(3) The second matter is the proposed date of recommencement of a mining operation that has not operated within the 2 months immediately before that date. The notification must be given not less than 14 days before the proposed date of recommencement.

(4) The third matter is the proposed date of installation of—

(a) a shaft; or

(b) a winding system.

The notification must be given not less than 14 days before the proposed date of installation.

(5) The fourth matter is the proposed date of suspension or abandonment of a mining operation. In the case of a mining operation that has been conducted for fewer than 12 months, the notification must be given not less than 24 hours before the proposed date of suspension or abandonment. In any other case, the notification must be given not less than 14 days before the proposed date of suspension or abandonment.

(6) If a tunnelling operation or shaft becomes an underground mining operation, subclauses (1) to (5) apply in respect of the underground mining operation.

212 Giving draft principal hazard management plans and principal control plans to WorkSafe

(1) A mine operator must give the following to WorkSafe not less than 2 months before the mining operation commences:

(a) all draft principal hazard management plans for the mining operation; and

(b) all draft principal control plans for the mining operation.

(2) Nothing in subclause (1) applies where a mining operation recommences after being suspended.

213 Plans of mining operation

(1) The mine operator must ensure that a plan is made of the mining operation as at the date of commencement of the mining operation.

(2) The mine operator must ensure that the plan of the mining operation is reviewed and, if necessary, updated—

(a) at least once every 3 months in relation to the parts of the plan that identify points of access, egresses, and refuges:

(b) when there has been a significant modification to the mining operation:

(c) if the mining operation has been suspended, before the mining operation recommences:

(d) otherwise, at least once every 6 months.

(3) The plan, including any updated plan, must—

(a) be prepared by a mine surveyor using the New Zealand Geodetic Datum 2000 and to a suitable scale; and

(b) be kept at the site office; and

(c) be available for inspection at all times at which a mine worker is present at the mining operation.

(4) The mine surveyor who prepares the plan must hold a certificate of competence as a mine surveyor or, in the case of an opencast mining operation or tunnelling operation only, be a licensed cadastral surveyor.

214 Copy of plan of mining operation to be given to WorkSafe

The mine operator must ensure that a copy of the plan of the mining operation is given to WorkSafe—

(a) as soon as practicable after the date of completion of the plan for the first time; and

(b) at intervals of 12 months after that date; and

(c) whenever any significant changes are made to the plan.

215 Copy of plan of mining operation to be available to industry health and safety representative

The mine operator must ensure that the plan of the mining operation, including any updated plan, is made available, on request, to an industry health and safety representative.

216 Plans of ceased mining operation

(1) The mine operator must ensure that, immediately following the suspension or abandonment of the mining operation, a plan is made of the mining operation.

(2) The plan must be—

(a) prepared by a mine surveyor using the New Zealand Geodetic Datum 2000 and to a suitable scale; and

(b) correct as at the date of suspension or abandonment; and

(c) copied to WorkSafe.

217 Details to be included in plans

The mine operator must ensure that the plans, including any updated plans, prepared under regulations 213 and 216 include such details as exist of—

(a) every explosion risk zone:

(b) every area of an underground metalliferous mining operation or tunnelling operation where methane has been detected:

(c) tenure boundaries:

(d) the angle of inclination, datum level at the collar, depth, and location of every borehole or shaft:

(e) the direction, extent, and location of every known barrier, fault, intrusive dyke, old workings, washout, water accumulation, or aquifer:

(f) the floor levels and location of every traverse station:

(g) the angle of dip, direction, nature, and thickness of every known coal seam:

(h) the cross and longitudinal sections of every level and lode:

(i) the horizontal and vertical sections of the ventilation system, including details of—

(i) the direction, course, and volume of air flow; and

(ii) the location and description of every device used to regulate or distribute air; and

(iii) the location of firefighting, rescue, and emergency facilities, including emergency egresses, changeover stations, refuges, and first-aid stations:

(j) the separation distances between shafts:

(k) the location of inrush control zones:

(l) the location of electrical installations, including the route and voltage of all conductors (excluding trailing cables) and the position of all major switchgear:

(m) water dams, tailing dams, and tip heads:

(n) areas where spontaneous combustion has occurred, including sealed areas:

(o) places where hydrocarbons and explosives are stored:

(p) roads and other key features of the traffic management system within the mining operation:

(q) any other identified hazards present at or close to the mining operation:

(r) natural features surrounding the mining operation:

(s) the location of every device that provides for oral communication between the underground parts of the mining operation and the surface:

(t) an indication of every location at which it is proposed to develop the mining operation with the next 12 months.

218 Plan showing firefighting, rescue, and emergency facilities to be posted

The mine operator must ensure that—

(a) a version of the plan required by regulation 213 is prepared showing the matters described in regulation 217(i)(iii); and

(b) copies of the version of the plan required by subclause (a) are displayed at a prominent and secure position on the surface part of the mining operation and at locations underground where they will—

(i) assist any person who may have to escape from the mining operation in an emergency; or

(ii) assist with the rescue of mine workers from the underground parts of the mining operation in an emergency.

219 Mining operation records

(1) The mine operator must ensure that mining operations records—

(a) are kept at the site office; and

(b) are available for inspection by a mine worker or the site senior executive at any time at which a mine worker or the site senior executive is present at the mining operation.

(2) The mining operations records must consist of—

(a) information about the mine operator, including the information provided in the notice given to WorkSafe under regulation 211:

(b) information about the appointment of the site senior executive, including the person's name:

(c) all notifications and reports to WorkSafe under regulations 211 and 227 to 229:

(d) the current and all previous plans of the mining operation:

(e) plans of any abandoned mining operation above, below, or within 200 metres of the boundary of the mining operation, including where any part of an abandoned mining operation is above, below, or within 200 metres of the boundary of the mining operation:

(f) records of the certificates of competence held by mine workers at the mining operation and any other training or qualifications they have received:

(g) records of mine workers underground:

(h) the register of accidents and incidents required under section 25 of the Act and the records kept under regulation 226:

(i) the results of examinations performed under regulation 222:

(j) statutory notices received from WorkSafe and the responses to those notices, including any remedial action taken as a result of those notices:

(k) the details of any inspections completed by a site health and safety representative or industry health and safety representative and any actions taken by a site health and safety representative or industry health and safety representative, including any notices issued under sections 19ZF to 19ZH of the Act.

(3) A matter must be kept in the mining operation record for 7 years after the matter is included in the record.

220 Record of mine workers underground

The mine operator must ensure that—

(a) no mine worker is allowed to enter the underground parts of an underground mining operation or tunnelling operation without the permission of the manager; and

(b) an accurate record is made of every mine worker's entry into, and exit from, the underground parts of an underground mining operation or tunnelling operation; and

(c) the record, or a copy of it, is kept at the entry point.

221 Shift reports

(1) The mine operator of an underground coal mining operation must ensure that—

(a) the underviewer of each shift at the underground coal mining operation completes a written report on—

(i) the current state of the workings of the mining operation and plant at the mining operation; and

(ii) any material matters that may affect the health and safety of mine workers arising from work done during the shift; and

(iii) any hazards or potential hazards identified during the shift; and

(iv) the controls (if any) put in place during the shift to manage those hazards; and

(b) the underviewer communicates the content of the written report to the underviewer of the incoming shift; and

(c) the content of the written report is communicated to the mine workers on the incoming shift.

(2) The mine operator of a mining operation other than an underground coal mining operation must ensure that—

(a) the supervisor of each shift at the mining operation completes a written report on—

(i) the current state of the workings of the mining operation and plant at the mining operation; and

(ii) any material matters that may affect the health and safety of mine workers arising from work done during the shift; and

(iii) any hazards or potential hazards identified during the shift; and

(iv) the controls (if any) put in place during the shift to manage those hazards; and

(b) the supervisor communicates the content of the written report to the supervisor of the incoming shift; and

(c) the content of the written report is communicated to the mine workers on the incoming shift.

(3) If the content of the written report is communicated to the underviewer or supervisor of the incoming shift orally under subclause (1)(b) or (2)(b), the mine operator must ensure that the written report is made available to the underviewer or supervisor of the incoming shift during his or her shift.

(4) A procedure for performing the tasks described in subclauses (1) and (2) must be included in the health and safety management system for the mining operation.

222 Examination of mining operations

(1) The mine operator must ensure that a competent person—

(a) examines,—

(i) before the start of each working shift and at suitable times during each working shift, every area of the mining operation where a mine worker is or will be present; and

(ii) at least weekly, every accessible area of the mining operation, including every area containing barriers, machinery, seals, underground or surface infrastructure, and ventilation stoppings; and

(iii) at least weekly, every vehicle in the mining operation; and

(iv) before it is started, any fixed or mobile plant in the mining operation that has been stopped for the preceding 24 hours or longer; and

(b) takes all practicable steps to eliminate, isolate, or minimise any significant hazard identified during the examination; and

(c) ensures that all plant examined either is safe or is made safe.

(2) The mine operator must ensure that a written procedure for the conduct of examinations required by subclause (1) is included in the health and safety management system for the mining operation and sets out—

(a) the matters to be covered by the examination; and

(b) a timetable (subject to the minimum requirements of subclause (1)) for the carrying out of the examinations; and

(c) the process for recording findings; and

(d) the process for taking action as a result of findings.

223 Barometer, hygrometer, and thermometer

(1) The mine operator of an underground mining operation or tunnelling operation must ensure that—

(a) a barometer and thermometer are placed on the surface of the mining operation in a conspicuous position near the entrance to the underground parts of the mining operation; and

(b) a hygrometer is available for use in every underground mining operation or tunnelling operation.

(2) The mine operator must ensure that a competent person reads the barometer and thermometer before the examinations required by regulation 222(1).

224 Visits to solitary mine workers

The mine operator of an underground mining operation or tunnelling operation must ensure that—

(a) a competent person visits or contacts a mine worker required to be alone in the underground parts of the mining operation at least twice during each shift and at intervals not exceeding 4 hours; and

(b) a record is kept of visits to or contact made with a mine worker as required by paragraph (a).

225 Hazard notices

The prescribed form for the purposes of section 19ZF of the Act (which relates to the issuing of hazard notices by trained site health and safety representatives) is the form set out in Schedule 6 of these regulations.

226 Register of accidents and serious harm

(1) The mine operator must record the particulars of the following in relation to any mine worker:

(a) every accident that harmed (or, as the case may be, might have harmed) the mine worker at the mining operation; and

(b) every occurrence of serious harm to the mine worker at work, or as a result of any hazard to which the mine worker was exposed while at the mining operation.

(2) For each accident or occurrence of serious harm, the particulars prescribed in Schedule 7 must be recorded in a register of accidents and serious harm maintained by the mine operator.

(3) The mine operator must ensure that a copy of the register is provided to WorkSafe at intervals of not more than 6 months.

(4) For the avoidance of doubt, a mine operator is not required, in relation to any mine worker, to maintain a separate register of accidents and serious harm under section 25(1) or (1B) of the Act.

227 Notification of accidents and serious harm

(1) For the purpose of section 25(2)(b) of the Act, every accident specified in Schedule 8 is required to be notified to WorkSafe if the accident occurs at a mining operation.

(2) For the purpose of section 25(3)(b) of the Act, the mine operator must notify the following to WorkSafe:

(a) every accident specified in Schedule 8 if the accident occurs at the mining operation; and

(b) every occurrence of serious harm at the mining operation.

(3) The mine operator must notify the accident or serious harm to WorkSafe by providing the particulars prescribed in Schedule 7 to WorkSafe.

(4) The mine operator must also provide the particulars of the accident or serious harm, except for personal information about any mine worker, to every site health and safety representative at the mining operation.

(5) WorkSafe must make the particulars of the accident or serious harm, except for personal information about any mine worker, available to industry health and safety representatives.

(6) For the avoidance of doubt, a mine operator is not required, in relation to any mine worker, to separately notify the accident or serious harm to WorkSafe on the basis that the mine worker is an employee of or a self-employed person contracted to the mine operator.

228 Accident investigations

(1) The mine operator must ensure that—

(a) any accident at the mining operation is investigated; and

(b) the investigation findings are made available to the mine workers at the mining operation.

(2) If the accident is a notifiable accident, the mine operator must ensure that a report of the investigation findings is provided to WorkSafe within 30 days of the date on which the accident occurred.

(3) A procedure for making findings available to workers must be included in the health and safety management system.

(4) Nothing in this regulation affects section 7(2) of the Act.

229 Notification of high-risk activities

(1) Before a high-risk activity specified in Schedule 9 is undertaken, the mine operator must ensure that notice of the activity is given to WorkSafe.

(2) The period of notice to be given is the waiting period specified in Schedule 9 in relation to that activity, or any other longer or shorter period of notice that WorkSafe, by notice in writing, directs.

(3) The notice must specify—

(a) the nature of the high-risk activity; and

(b) the intended commencement date of the activity.

(4) The date that notice is given is the date that the notice is received by WorkSafe.

(5) WorkSafe may request further information about the activity between the time of the notification of the activity by the mine operator and the expiry of the waiting period.

(6) The mine operator must ensure that the high-risk activity is not commenced until the period of notice under subclause (2) has expired.

230 Quarterly report to WorkSafe

(1) The mine operator must give WorkSafe the information set out in Schedule 10.

(2) The information must be given every 3 months.

Part 10
Offences

231 Offences

(1) The provisions to which this regulation applies are regulations 7 to 9, 10(3), 12 to 16, 23 to 32, 33(5), 45(5), 52 to 55, 58 to 64, 66, 69, 70, 71, 73(1), 75, 76(1), 82, 88(2), 91, 92, 94, 95, 104, 106, 115, 116, 118 to 129, 131 to 151, 153 to 158, 160 to 176, 178 to 224, and 226 to 230.

(2) The provisions referred to in subclause (1) are provisions to which section 50 of the Act applies.

Part 11
Transitional provisions, revocations, and consequential amendments

232 Application, savings, and transitional provisions

The application, savings, and transitional provisions set out in Schedule 1 have effect for the purposes of these regulations.

233 Revocations

The following regulations are revoked:

(a) the Health and Safety in Employment (Mining—Administration) Regulations 1996 (SR 1996/220):

(b) the Health and Safety in Employment (Mining Underground) Regulations 1999 (SR 1999/331).

234 Consequential amendments to Health and Safety in Employment (Prescribed Matters) Regulations 2003

(1) This regulation amends the Health and Safety in Employment (Prescribed Matters) Regulations 2003 (the **principal regulations**).

(2) After regulation 4(3), insert:

(4) Subclauses (1) and (2) do not apply to a mine operator who is required to maintain a register of accidents and serious harm that occur at a mining operation in accordance with regulation 226 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013.

(3) After regulation 5(3), insert:

(4) Subclause (1) does not apply to a mine operator who is required to notify an accident or occurrence of serious harm at a mining operation in accordance with regulation 227 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013.

235 Consequential amendments to Health and Safety in Employment Regulations 1995

(1) This regulation amends the Health and Safety in Employment Regulations 1995 (the **principal regulations**).

(2) In regulation 2, insert in its appropriate alphabetical order:

alluvial mining operation has the meaning given to it in the Act

(3) In regulation 2, replace the definition of **mine** with:

mining operation has the meaning given to it in the Act

(4) In regulation 2, replace the definition of **quarry** with:

quarrying operation has the meaning given to it in the Act

(5) In regulation 2, revoke the definition of **tunnel**.

(6) Replace regulation 19(2)(n) with:

(n) any machinery used in an alluvial mining operation, a mining operation, or a quarrying operation.

236 Consequential amendments to Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

(1) This regulation amends the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 (the **principal regulations**).

(2) Revoke regulation 59(2) and (8).

(3) In regulation 78(2), replace "Health and Safety in Employment (Mining—Underground) Regulations 1999" with "Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013".

(4) In regulation 83(2), replace "Health and Safety of Employment (Mining Underground) Regulations 1999" with "Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013".

237 Consequential amendment to Electricity (Safety) Regulations 2010

[Revoked]

Regulation 237: revoked, on 31 December 2013, by regulation 237(3).

Schedule 1
Application, savings, and transitional provisions

r 232

Contents

1 Interpretation

In this schedule, a mining operation or, as the case may be, a quarrying operation or an alluvial mining operation—

(a) is an existing mining operation or, as the case may be, an existing quarrying operation or existing alluvial mining operation if, immediately before the date on which these regulations came into force, it was in operation or suspended; and

(b) ceases to be an existing mining operation or, as the case may be, an existing quarrying operation or existing alluvial mining operation if it is abandoned.

Provisions relating to existing mining operations

2 Application of Parts 2 to 4 and 6 to 10 to existing mining operation

Until 1 January 2015, nothing in Parts 2 to 4 or 6 to 10 of these regulations applies to an existing mining operation.

3 Application of Health and Safety in Employment (Mining—Underground) Regulations 1999

(1) Subclause (2) applies to an existing mining operation to which the Health and Safety in Employment (Mining—Underground) Regulations 1999 apply.

(2) Until 1 January 2015, the Health and Safety in Employment (Mining—Underground) Regulations 1999 continue to have effect in relation to the existing mining operations as if they had not been revoked by regulation 233.

4 Transitional provision for escapeways in underground coal mining operation

Until 16 December 2024, nothing in regulation 170(1) applies to an existing mining operation that is an underground coal mining operation.

5 Application of regulations 180(b)(i) and 183 to seals in existing mining operations

Nothing in regulation 180(b)(i) or 183 applies in respect of any seal that was constructed and in place in an existing mining operation immediately before 16 December 2013.

6 Application of regulation 182 to certain ventilation control devices in existing mining operations

Nothing in regulation 182 applies in respect of any of the following ventilation control devices that were constructed and in place at an existing mining operation immediately before 16 December 2013:

(a) stoppings, doors, overcasts, and regulators installed as part of the main ventilation system:

(b) stoppings, doors, overcasts, and regulators installed as part of the ventilation system for a panel:

(c) mine entry airlock:

(d) seals.

Exemptions

7 WorkSafe may grant exemptions from requirements

(1) WorkSafe may, by notice in writing to the mine operator, exempt an existing mining operation from any requirement or requirements of these regulations if WorkSafe is satisfied that the mining operation is unable to comply with the requirement or requirements.

(2) WorkSafe may grant a renewal of an exemption granted under subclause (1).

(3) The total period of any exemption granted under subclause (1) (combined with any period of renewal granted under subclause (2)) must not exceed 36 months and must end no later than 31 December 2017.

8 WorkSafe may request information

WorkSafe may request that a mine operator provide it with any information that will assist WorkSafe to decide whether to grant the mining operation an exemption under clause 7(1) or a renewal under clause 7(2).

9 Exemption may be subject to conditions

An exemption (or renewal of an exemption) granted under clause 7 may be subject to any condition or conditions that WorkSafe thinks fit.

Provisions relating to safety-critical roles and competencies

10 Existing holders of safety-critical roles

(1) This clause applies to any person who, immediately before the date on which these regulations come into force, holds any of the following positions in an existing mining operation or existing quarrying operation and holds any necessary qualifications required in relation to that position under the Health and Safety in Employment (Mining Administration) Regulations 1996:

(a) manager of a mining operation:

(b) manager of a quarrying operation:

(c) manager of an alluvial mining operation:

(d) coal mine underviewer:

(e) coal mine deputy:

(f) gas tester:

(g) mine surveyor:

(h) winding engine driver.

(2) On the date on which these regulations come into force a person to whom this regulation applies continues to hold the position he or she held immediately before that date.

11 Appointment of manager of mining operation, quarrying operation, or alluvial mining operation

(1) On or before 1 January 2015, the mine operator of an existing mining operation or, as the case may be, an existing quarrying operation or alluvial mining operation must ensure that a manager is appointed for the operation in accordance with regulation 13, 14, or 15 and, except as provided in this regulation, that person must hold a current certificate of competence as required by these regulations.

(2) If the person appointed held the position of manager immediately before the date on which these regulations came into force, until the relevant date specified in subclause (3), nothing in regulations 16 to 22 applies in respect of the person, provided that the person holds any necessary qualifications that would have been required in relation to that position under the Health and Safety in Employment (Mining Administration) Regulations 1996.

(3) The relevant dates are,—

(a) if the person's certificate of competence has an expiry date, whichever is the earlier of—

(i) the date that is 12 months after the expiry date; and

(ii) 1 January 2017; or

(b) if the person's certificate of competence does not have an expiry date, 1 January 2017.

Schedule 1 clause 11(3)(a)(ii): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

Schedule 1 clause 11(3)(b): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

12 Appointment of electrical superintendent, mechanical superintendent, and ventilation officer

(1) On or before 1 March 2015, the site senior executive of an existing mining operation must ensure that a person is appointed to each of the safety critical roles described in regulations 26, 27, and 29 if required in relation to that mining operation in accordance with those regulations.

(2) Until 1 January 2017, nothing in regulation 26(2), 27(2), or 29(2) requires a person appointed as an electrical superintendent, mechanical superintendent, or ventilation officer to hold any certificate of competence issued under these regulations.

Schedule 1 clause 12 heading: amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

Schedule 1 clause 12(2): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

13 Appointment of other safety-critical roles

(1) On or before 1 March 2015, the site senior executive of an existing mining operation must ensure that a person is appointed to each of the safety-critical roles described in regulations 28, 30, and 31 if required in relation to that mining operation in accordance with those regulations and, except as provided in this regulation, each person must hold the appropriate current certificate of competence as required by these regulations.

(2) If a person appointed to a role described in regulation 28, 30, 31, or 32 held that position immediately before the commencement of these regulations, until the relevant date specified in subclause (3), nothing in regulation 28(2), 30(2) and (3), 31(2) to (5), or 32 applies in respect of the person, provided that the person holds any necessary qualifications that would have been required in relation to that position under the Health and Safety in Employment (Mining Administration) Regulations 1996.

(3) The relevant dates are,—

(a) if the person's certificate of competence has an expiry date, whichever is the earlier of—

(i) the date that is 12 months after the expiry date; and

(ii) 1 January 2017; or

(b) if the person's certificate of competence does not have an expiry date, 1 January 2017.

Schedule 1 clause 13(3)(a)(ii): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

Schedule 1 clause 13(3)(b): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

14 Appointment of site senior executive for mining operations

(1) Nothing in regulation 7 applies in respect of an existing mining operation until 1 July 2014.

(2) Until 1 January 2017, nothing in regulation 8(1) to (3) applies in respect of a site senior executive appointed in respect of any mining operation (whether or not an existing mining operation).

Schedule 1 clause 14(2): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

15 Appointment of safety-critical roles for new mining operations

(1) This clause applies in relation to a mining operation, quarrying operation, or alluvial mining operation that is not an existing mining operation, existing quarrying operation, or existing alluvial mining operation (a **new mining operation**).

Managers

(2) Regulations 16 to 22 do not apply to a person appointed as manager of a new mining operation until 1 January 2017 but only if the person holds any necessary qualifications that would have been required in relation to that position under the Health and Safety in Employment (Mining Administration) Regulations 1996.

(3) For the purposes of subclause (2), if the person held a certificate of competence under those regulations immediately before 1 January 2015 but did not apply for a renewal or replacement of the certificate before that date, regulations 16 to 22 do not apply to the person until,—

(a) if the person's certificate of competence has an expiry date, the earlier of—

(i) the date that is 12 months after the expiry date; and

(ii) 1 January 2017:

(b) if the person's certificate of competence does not have an expiry date, 1 January 2017.

Electrical superintendents, mechanical superintendents, and ventilation officers

(4) Regulations 26(2), 27(2), and 29(2) (which require a person to hold a certificate of competence) do not apply to a person appointed as an electrical superintendent, mechanical superintendent, or ventilation officer for a new mining operation until 1 January 2017.

Mine surveyors, underviewers, supervisors, coal mine deputies, and winding engine drivers

(5) Regulations 28(2), 30(2) and (3), 31(2) to (5), and 32 do not apply to a person appointed as mine surveyor, underviewer, supervisor, coal mine deputy, or winding engine driver for a new mining operation until 1 January 2017 but only if the person holds any necessary qualifications that would have been required for that position under the Health and Safety in Employment (Mining Administration) Regulations 1996.

(6) For the purposes of subclause (5), if the person held a certificate of competence under those regulations immediately before 1 January 2015 but did not apply for a renewal or replacement of that certificate before that date, regulations 28(2), 30(2) and (3), 31(2) to (5), and 32 do not apply to the person until,—

(a) if the person's certificate of competence has an expiry date, the earlier of—

(i) the date that is 12 months after the expiry date; and

(ii) 1 January 2017:

(b) if the person's certificate of competence does not have an expiry date, 1 January 2017.

Schedule 1 clause 15: replaced, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

Applications and other matters in relation to certificates of competence

16 Applications and other matters in relation to certificates of competence before 1 January 2015

(1) Until 1 January 2015, any application for a certificate of competence of a kind specified in regulation 16 of the Health and Safety in Employment (Mining Administration) Regulations 1996 must be made and dealt with under those regulations.

(2) Any application for the renewal or replacement of a certificate of competence issued under those regulations must be made and dealt with under those regulations.

(3) Despite subclauses (1) and (2), the prescribed fees for the making of the applications are those set out in Schedule 2 of these regulations.

(4) The cancellation or suspension of a certificate of competence issued under the Health and Safety in Employment (Mining Administration) Regulations 1996 must be dealt with under those regulations.

(5) Any certificate granted or renewed in accordance with this clause expires with the close of 31 December 2016 unless it has an earlier expiry date shown on its face.

Schedule 1 clause 16(5): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

17 Applications, etc, for certificates of competence as at 1 January 2015

(1) This clause applies to any application for a certificate of competence or for a renewal of a certificate of competence under the Health and Safety in Employment (Mining Administration) Regulations 1996 that, immediately before 1 January 2015, had been made but not yet determined.

(2) The application must be treated as if it was made to the Board of Examiners, and the Board must deal with it in accordance with the Health and Safety in Employment (Mining Administration) Regulations 1996.

(3) Any certificate granted or renewed in accordance with this clause expires with the close of 31 December 2016 unless it has an earlier expiry date shown on its face.

Schedule 1 clause 17(3): amended, on 31 December 2015, by regulation 4 of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292).

18 Application of Health and Safety in Employment (Mining Administration) Regulations 1996

For the purpose of clauses 10 to 17,—

(a) the Health and Safety in Employment (Mining Administration) Regulations 1996 (except Schedule 1) continue to have effect with any necessary modifications as if they had not been revoked by regulation 233; and

(b) the recognition of any organisation under regulation 17 of the Health and Safety in Employment (Mining Administration) Regulations 1996 that was in effect immediately before these regulations came into force continues to have effect.

Schedule 2
Fees for issue, renewal, and replacement for certificate of competence

rr 36, 44, 46

Type of fee	$
Issue of any certificate of competence	140.00
Renewal of any certificate of competence	80.00
Replacement of any certificate of competence	30.00

Schedule 3
Mine worker participation system

r 109

Mine health and safety representatives

1 Consultation with mine workers

If the Act or these regulations require the mine operator or site senior executive to consult with mine workers, that consultation,—

(a) if a site health and safety representative or representatives have been elected for the mining operation,—

(i) must be done with the site health and safety representative or representatives; and

(ii) may, in addition, be done directly with the affected mine workers and any other representative of 1 or more mine workers; or

(b) otherwise, may be done directly with the affected mine workers and any representative of 1 or more mine workers.

2 Mine workers and union may elect site health and safety representatives

The mine workers, together with any union representing them, may hold an election for at least 1 site health and safety representative (which may include 1 or more site health and safety representatives elected for each particular type of work of the mine operator, or another grouping) to carry out the functions in section 19W of the Act.

3 Mine workers or union may require mine operator to hold election for site health and safety representative

(1) If an election may or must be held under clause 2, the mine workers, together with any unions representing them, may, instead of holding the election themselves, notify the site senior executive that they require the mine operator to hold the election.

(2) The mine operator must hold the election within 2 months of receiving notification.

4 Method of electing site health and safety representative

(1) An election for a site health and safety representative must—

(a) involve only candidates who—

(i) work sufficiently regularly and for a sufficient duration to enable them to carry out their functions effectively; and

(ii) have worked for a minimum of 2 years in a mining operation of the kind at which the person will be a site health and safety representative; and

(iii) are willing to take on the position; and

(b) be conducted through a secret ballot; and

(c) give all mine workers, or all mine workers in a relevant grouping for the purposes of section 19R(5) of the Act, a reasonable opportunity to vote; and

(d) be determined by the wishes of the majority of those who vote.

(2) An election is not required if—

(a) there is only 1 candidate for a position, in which case the candidate automatically fills the position; or

(b) there are no candidates for a position, in which case the position is not filled.

5 Filling vacancy for health and safety representative

The mine workers, together with any unions representing them, may hold an election (or require the mine operator under clause 3 to hold an election) if a vacancy arises in a position of site health and safety representative.

Mine health and safety committees

6 Mine health and safety committees

(1) The site senior executive may establish a mine health and safety committee.

(2) Despite subclause (1), the site senior executive must establish a mine health and safety committee if requested to do so by—

(a) a site health and safety representative; or

(b) 5 or more mine workers at the mining operation.

7 Membership of committee

(1) Subject to this clause, the membership of a health and safety committee may be agreed between the mine operator and the mine workers.

(2) If there is a site health and safety representative, that representative, if he or she consents, is a member of the committee.

(3) If there are 2 or more site health and safety representatives, those representatives may choose 1 or more of their number (who consent) to be members of the committee.

(4) At least half of the members of the committee must be mine workers who are not nominated by the mine operator.

(5) The committee must include at least 1 member nominated by the mine operator to represent the mine operator and who has the authority to allocate financial and other resources on behalf of the mine operator.

8 Functions of committee

The functions of a health and safety committee are—

(a) to facilitate co-operation between the mine operator and the mine workers in developing, reviewing, and implementing measures designed to ensure the health and safety of the mine workers at work:

(b) to assist in developing and reviewing standards, rules, and procedures relating to health and safety that are to be followed or complied with in the mining operation:

(c) to perform any other function agreed between the committee and the mine operator.

9 Meetings of committee

A health and safety committee must meet at least once every 3 months.

Schedule 4
Standards for equipment for raising and lowering mine workers, coal, minerals, and materials

r 138(2)

Winder or slope haulage

1 A winder or slope haulage used at the mining operation must have at least 2 independent brakes.

2 The brakes must not include a single line component that, if it failed, would prevent the breaking system from safely stopping the winder.

3 Each brake must be designed, adjusted, and maintained so as to safely stop and hold the conveyance or conveyances under all conditions of loading, directions of travel, and speeds under or at which it will travel.

4 Each brake on a drum winder must be capable of supporting 2 times the maximum static load normally hoisted by the drum winder from the lowest operating position in the shaft.

5 Each brake on a friction winder must be capable of producing a braking torque,—

(a) when transporting persons, at least 3 times the maximum out-of-balance static torque applied to the driving sheave by the loads normally carried by the winder; and

(b) when transporting rock or materials, at least 2 times the maximum out-of-balance static torque applied to the driving sheave by the loads normally carried by the winder.

6 The braking system of each winding system at the mining operation must be designed in such a way that the failure of any one component in the winding system will not prevent the conveyance from being brought safely to a rest.

7 Every winder used at the mining operation must have—

(a) an automatic device to prevent the winder over-winding; and

(b) a device to prevent a descending conveyance from being landed at the lowest entrance to the shaft at a speed exceeding 2 metres per second; and

(c) a device to indicate the position of each conveyance in the shaft; and

(d) for a manually controlled winder that is capable of exceeding speeds of 4 metres per second, a rope speed indicator located on the winder where it can be read by the winder operator.

8 Every slope haulage used at the mining operation must have—

(a) an automatic device installed to prevent overtravel; and

(b) a device that indicates the position of each rope-hauled line of vehicles in the roadway; and

(c) for manually controlled slope haulage that is capable of exceeding speeds of 2 metres per second, a rope speed indicator located on the slope haulage where it can be read by the slope haulage operator.

9 Where electric automatic devices are used to prevent over winding, over travel, or over speeding, the device must provide an equivalent level of safety as a non-electronic automatic device used for the same purpose.

10 Where an electronic automatic device is used to prevent over winding, over travel, or over speeding and the device includes a single line component that could cause the device to fail to an unsafe mode, the device must have a separate supervisory device with an independent drive that will safely bring the winding system to a rest in the event of over wind, over travel, or over speed.

11 If a supervisory device is brought into operation for any reason or a supervisory device fails, further operation of the winding system associated with the supervisory device must be stopped until,—

(a) in the case of the supervisory device being brought into operation, the electric automatic device is examined and proved to be effective; or

(b) in the case of the failure of the supervisory device, the cause of the failure has been remedied.

12 If an electronic automatic device has separate modes for winding persons and for winding materials, the device must be set to the mode for winding persons before any person is allowed to enter the conveyance, and, except in relation to a shaft being sunk, the mode to which the device has been set must be displayed at every landing in such a way that it will be clearly visible to any person transmitting signals from a landing.

Controls and safety devices for conveyances

13 The headframe or tower of a shaft used for winding at the mining operation must have—

(a) equipment that is designed and installed to ensure the conveyance or counterweight will stop safely if the conveyance is overwound; and

(b) safety devices that are designed and installed so that when a conveyance or counterweight has stopped or become detached from the winding rope, the conveyance will not fall down the shaft; and

(c) means by which people can safely leave an overwound or stalled conveyance, including a way out of the conveyance.

14 Where there may be uncontrolled contact between the conveyances in a shaft, a conveyance and equipment installed in the shaft, or a conveyance and the side of the shafts, the shaft must contain suitable guides for each conveyance and counterweight.

15 Winders used to transport persons at the mining operation must be fitted with brake locking devices that are interlocked with any other safety-related plant in the shaft and that will prevent the winder moving during normal transport of persons if—

(a) any shaft side barrier or gate is not closed; or

(b) the conveyance gates are not fully closed and latched; or

(c) any emergency stop button has not been reset after an emergency stop signal has been activated.

16 Each winder at the mining operation must have suspension equipment capable of withstanding stall conditions or a hook that can detach an ascending conveyance from the rope in the event that the conveyance overwinds.

17 Every winder and slope haulage used at the mining operation that is not directly supervised must have suitable equipment, such as fire extinguishers, that will operate automatically to extinguish fire in the plant's engine room.

18 Every friction winder at the mining operation must have a device that cuts power to the winding system and stops the winding drum or sheave by applying brakes automatically before a conveyance, counterweight, or rope attachment reaches a permanent obstruction to its passage in the shaft.

19 Every winder used at the mining operation must automatically synchronise the position of the conveyance in a shaft with the conveyance's position indicator and safety devices.

20 Any adjustment to the synchronisation of the position of the conveyance with its position indicator and safety devices may be done only while the conveyance's brakes are applied and the winder is stationary.

21 The speed of a friction winder used at the mining operation must not exceed the following speeds:

(a) in the case of friction winders used to raise or lower people, 16 metres per second:

(b) in the case of friction winders used to raise or lower material, 18 metres per second.

22 The brakes on a friction winder used at the mining operation must—

(a) apply automatically when the power to the winder fails:

(b) when applied automatically in any situation, not be likely to cause the winding rope to slip on the driving sheave:

(c) in the case of a manually controlled friction winder, be able to be applied manually by the winder operator.

23 Every winder's brakes must apply automatically and prevent the winder being operated if the brake linings become worn to an extent that jeopardises the safe operation of the brakes.

24 Sufficient information about the operating requirements of any winder, slope haulage, or hoist intended to be used at the mining operation must be given to the supplier of the plant so that the supplier is able to provide plant that is appropriate to be installed at the operation, and so that the installer is able to install the plant appropriately for the operation, and a record of the information provided to the supplier is kept.

25 Any plant utilising winders, slope haulage, or hoists must be tested before being used at the mining operation to confirm that it meets the operating requirements, and a record of the test results must be kept.

26 Where it is intended to use a winder, slope haulage, or hoist outside its operating requirements, a design check by a competent person must be carried out and any necessary modification to the plant must be completed before it is used outside the specified operating requirements.

27 Every shaft that exceeds 60 metres in depth and that may be used as a means of egress by mine workers, including in an emergency, must have an automatic cage or skip installed that is suitable for raising or lowering mine workers.

Rope used for winding and slope haulage

28 A rope must not be used for winding or slope haulage at the mining operation unless the mine operator has obtained a certificate from the manufacturer of the rope stating—

(a) the date the rope was manufactured; and

(b) the tensile strength, diameter, length, and mass of the rope; and

(c) the class of steel used in the rope's construction.

29 A rope must not be used for winding or slope haulage at the mining operation unless the rope's tensile strength has been tested by an independent testing facility and a certificate stating the tensile strength has been obtained from the testing facility.

30 For a rope other than a friction winder rope, a sample of at least 2 metres must cut from the end of the rope during recapping, sent to an independent testing

facility for testing its tensile strength, and a certificate stating the tensile strength obtained from the testing facility.

31 Where a certificate obtained from an independent testing facility states that the tensile strength of the rope is less than 90% of the rope's tensile strength when new, the rope must not be used for winding or slope haulage at the mine.

32 Only rope recommended by the manufacturer of the winding system may be used at the mining operation.

33 Only rope dressing recommended by the manufacturer of the rope may be used.

34 The load applied to any rope used for drum winding at the mining operation must not result in a factor of safety less than the minimum factor of safety as set out in the following paragraphs (where **L** is the depth of the wind in metres):

(a) for a friction winder—

Proposed use	Minimum factor of safety		
	Single rope	2 or 3 ropes	4 or more ropes
Transporting persons or where the safety of persons is involved	7.5	6.9	6.3
Transporting rock or materials, where the safety of persons is not involved	6.8	6.2	5.6
Transporting rock in a shaft used only for that purpose	6.3	5.7	5.1
Transporting plant at a speed of less than 2 metres per second	5.0	5.0	5.0
Balance ropes	6.0	6.0	6.0

(b) for a winder other than a friction winder—

Proposed use	Minimum factor of safety
Transporting persons or where safety of mine persons is involved	7.5 – 0.001L
Transporting rock or materials, where the safety of persons is not involved	5.5 – 0.0003L
Transporting rock in a shaft used only for that purpose	4.5
Transporting plant at a speed of less than 2 metres per second	5

(c) for stage ropes used in shaft sinking—6.

35 Each winder rope on a multi-rope winder must be attached at the conveyance or counterweight by a device that loads the ropes in as uniform a manner as is reasonably practicable.

36 If rope attachments are connected directly to the conveyance or counterweight, devices must be provided to adjust the rope length and indicate rope tension;

and there must be regular monitoring and testing of winder or slope haulage ropes that does not damage or destroy the ropes.

37 Each winder rope used at the mining operation must be recapped at least once every 6 months.

38 When recapping is done as required by clause 10, the capping location must be moved at least 150 millimetres along the rope towards the standing end of the rope.

39 There must be criteria in place for when rope must be discarded.

40 Unsuitable rope must be discarded.

Schedule 5
Ventilation control devices and design criteria

r 182

Ventilation control device	Design criteria
Ventilation ducting	Anti-static and fire-resistant
Brattice line or temporary stopping	Anti-static and fire-resistant
Separation stopping for a primary escapeway	Anti-static, fire-resistant and of substantial construction that will ensure minimal leakage
Stoppings, doors, overcast, or regulator installed as part of the main ventilation system	Capable of withstanding an overpressure of 35 kPa
Stoppings, doors, overcast, or regulator installed as part of the ventilation system for a panel	Capable of withstanding an overpressure of 14 kPa
Mine entry airlock	Capable of withstanding an overpressure of 70 kPa whilst it is open
Type B seal	Capable of withstanding an overpressure of 35 kPa
Type C seal	Capable of withstanding an overpressure of 140 kPa
Type D seal	Capable of withstanding an overpressure of 345 kPa
Type E seal	Capable of withstanding an overpressure of 70 kPa

Schedule 6
Hazard notice

r 225

Form

Hazard notice

Section 19ZF, Health and Safety in Employment Act 1992

To: [*name of site senior executive*]

I believe that there is a hazard in our mining operation at [*state physical address or describe location of mining operation*].

This hazard is [*describe hazard*].

I suggest the steps that should be taken to deal with this hazard are: [*state details—it is optional whether to provide this information*].

I confirm that: [*all these statements must apply before a hazard notice may be issued*]

- I believe on reasonable grounds that there is a hazard in our mining operation; and
- I have brought the hazard to your attention; and
- I have discussed or attempted to discuss with you steps for dealing with the hazard.

and

[*One of the following statements must apply – delete statements that do not apply*.]

You refuse to discuss the hazard.

or

You refuse to take steps to deal with the hazard.

or

You and I do not agree on the steps that must be taken to deal with the hazard.

or

I believe on reasonable grounds that you and the mine operator have failed to meet the requirements of this Act or regulations made under this Act in relation to the hazard within a time agreed during the discussion.

Signature:

(Trained site health and safety representative)

Name:

Date:

Notes for site health and safety representative

1 You may issue a hazard notice only if you are a trained site health and safety representative within the meaning of section 19ZF of the Health and Safety in Employment Act 1992. To be a trained site health and safety representative, you must have—

- achieved a level of competence in health and safety practice specified by the Minister by notice in the *Gazette*; or
- completed an appropriate course of training that has been approved under section 19G of the Health and Safety in Employment Act 1992.

2 You may (but do not have to) notify a health and safety inspector that you have issued this notice. If you do, you should ensure you provide your name and contact details to the inspector.

Notes for mine operator

1 This hazard notice sets out a description of a hazard that a trained site health and safety representative believes exists in your mining operation.

2 There is no penalty attached to this notice. However, it serves as a prior warning if an infringement notice is issued by an inspector under section 56B of the Health and Safety in Employment Act 1992.

Schedule 7
Particulars of accident or serious harm to be recorded in register and notified to WorkSafe

rr 226(2), 227(3)

1 Particulars of mining operation

(1) Mining operation: [*include location*]

(2) Particulars of mining operator: [*name, business address, telephone number, and email address*]

(3) Particulars of site senior executive: [*name, business address, telephone number, and email address*]

2 Description of accident or serious harm

(1) Where and how did the accident or serious harm occur? [*describe the events leading up to the accident or serious harm*]

(2) Has an investigation been carried out? *Yes/No*

(3) Describe any hazards involved:

(4) Were any of the hazards a significant hazard? *Yes/No*

(5) Identify the hazards that were significant hazards:

3 Particulars of accident or serious harm

(1) Location within mining operation where accident or serious harm occurred:

(2) Time and date of accident or serious harm:

(3) Shift: [*select 1 of the following:*

- *day*
- *afternoon*
- *night*]

(4) Hours worked since arrival at work:

(5) Description of any plant involved in accident: [*include make and model*]

(6) Type of accident (if any): [*indicate the type of accident (if any) specified in Schedule 6 that best describes the accident*]

(7) Name of injured person (if any):

(8) Was the injured person seriously harmed? *Yes/No*

4 Additional particulars required in cases of serious harm (if any)

Particulars of injured person (if any)

(1) Residential address:

(2) Date of birth:

(3) Sex:

(4) Occupation or job title:

(5) Self-employed: *Yes/No*

(6) Employer:

(7) Period of employment (employees only): [*select 1 of the following:*

- *first week*
- *first month*
- *1–6 months*
- *6 months–1 year*
- *1–5 years*
- *over 5 years*]

Particulars of injury (if any)

(8) Treatment: [*select 1 of the following:*

- *none*
- *first aid only*
- *doctor but no hospitalisation*
- *hospitalisation*]

(9) Body part affected: [*select 1 or more of the following:*

- *head*
- *neck*
- *trunk*
- *upper limb*
- *lower limb*
- *multiple locations*
- *systemic internal organs*]

(10) Nature of injury or harm: [*select 1 or more of the following:*

- *fatal*
- *fracture of spine*
- *fracture other than spine fracture*
- *dislocation*
- *sprain or strain*
- *head injury*
- *internal injury of trunk*
- *amputation (including eye)*
- *open wound*

- *superficial injury*
- *bruising or crushing*
- *foreign body*
- *burns*
- *nerves or spinal cord*
- *multiple injuries*
- *puncture wound*
- *poisoning or toxic effects*
- *damage to artificial aid*
- *disease, nervous system*
- *disease, musculoskeletal system*
- *disease, skin*
- *disease, digestive system*
- *disease, infectious or parasitic*
- *disease, respiratory system*
- *disease, circulatory system*
- *tumour (malignant or benign)*
- *mental disorder*]

Further particulars of serious harm

(11) Mechanism of serious harm: [*select 1 or more of the following:*

- *fall, trip, or slip*
- *sound or pressure*
- *body stressing*
- *biological factors*
- *mental stress*
- *hitting objects with part of the body*
- *being hit by moving objects*
- *heat, radiation, or energy*
- *chemicals or other substances*]

(12) Agency of serious harm: [*select 1 or more of the following:*

- *machinery or (mainly) fixed plant*
- *mobile plant or transport*
- *powered equipment, tool, or appliance*
- *non-powered handtool, appliance, or equipment*
- *chemical or chemical product*

- *material or substance*
- *environmental exposure (eg, dust or gas)*
- *animal, human, or biological agency (other than bacteria or virus)*
- *bacteria or virus*]

Schedule 8
Notifiable accidents

r 227

A notifiable accident is any of the following that occurs at a mining operation:

Fire, ignition, explosion, or smoke

(1) any outbreak of fire underground involving open flame

(2) the ignition underground of any gas or dust

(3) any accident where mine workers are required to evacuate a part or the whole of the underground parts of an underground mining operation or tunnelling operation because of smoke

(4) the outbreak of any fire on the surface that endangers mine workers on the surface or in the underground parts of the mining operation

(5) any fire on plant, including mobile plant, or a building associated with mining or tunnelling activities

(6) in relation to a coal mining operation, the detection of any spontaneous combustion

Ventilation and gas

(1) any accident where mine workers are required to evacuate a part or the whole of the underground parts of a mining operation or tunnelling operation because of methane or any other gas

(2) any unplanned stoppage of the main fan in excess of 30 minutes

(3) any unplanned accumulation of methane or other gas requiring formal degassing operations

(4) the loss of consciousness of any mine worker including asphyxia

Outburst, inundation, or inrush

(1) any violent outburst of coal, gas or solid matter

(2) any windblast event capable of injuring or causing death to any mine worker or damaging seals or stoppings

(3) any inundation or inrush of water or material that flows when wet

(4) any structural failure of a tip, pond, or dam resulting in unintended movement or release of material or fluids

Ground, geotechnical, and other structural failures

(1) any failure of ground control that prevents persons from passing through the area or otherwise exposes them to danger

(2) any ground movement of a surface slope, face, bench, or haul road which has the potential to cause injury or death

(3) any movement of a surface slope or face that adversely affects any building, footpath, waterway, public utility, or other area of public access

(4) in relation to the surface of a mining operation, the structural failure of any gantry, storage bunker, tower, or other elevated structure

Emergency, escape, and rescue

(1) any initiation of the mine emergency plan other than during a planned exercise

(2) use of emergency escape equipment, including self-contained self-rescuers or other breathing apparatus, except during training

(3) failure in use or training of any emergency escape equipment or mines rescue breathing apparatus

(4) any emergency evacuation of a part or the whole of a mining operation

(5) the unplanned unavailability of 1 or more of the emergency escapeways from an underground mining operation or tunnelling operation

(6) any occasion where a mine worker or mine workers are trapped or unable to leave their place of work in a mining operation

Vehicles and plant

(1) any collision of mobile plant with other plant, including mobile plant, with a potential to cause serious harm

(2) any overturning of mobile plant, regardless of which part of the mobile plant is against the ground when it comes to a rest

(3) any unintended movement or brake failure of mobile plant that could have caused serious harm

(4) any occasion on which mobile plant breaches a safety berm or windrow

(5) a failure of any part of a powered shaft winding system causing danger

(6) the sinking of any waterborne craft

Shot-firing

(1) any misfire of a round of shots on a face

(2) any unplanned or premature ignition of a shot

(3) any accident where a person suffers injury or dies as a result of shot-firing

(4) any accident where material is projected beyond the declared danger zone or otherwise exposes any person to danger during blasting operations

Electricity

(1) unintended contact of any mobile plant with conductors, whether overhead or underground

(2) any occurrence of electrical arcing or electric shock

Schedule 9
High-risk activities

r 229

Applies to	High-risk activity	Length of time between notification and when activity can be undertaken
All mining operations	Commencement of highwall mining	1 month
	Entering a highwall mining excavation	48 hours
All mining operations	Shot-firing underground, where shot-firing has not been undertaken within a year prior to the intended time of shot-firing	7 days
All mining operations	Commissioning or use of mine shaft and winding systems plant	3 months
Underground mining operations and tunnelling operations	Working within inrush control zones	1 month
Underground mining operations and tunnelling operations	Entry by any mine worker into any sealed area of the underground parts of the mining operation	7 days
Underground metalliferous mining operations and tunnelling operations where methane has been detected	Hot work in the underground parts of the mining operation	1 month before first hot work covered by hot work approval system 24 hours before each occasion of hot work thereafter
Underground mining operations	Single entry development (being the development of a roadway or a drift for more than 200 metres without forming an intersection)	1 month
Underground mining operations	Shaft or drift sinking, raise boring or development of a new entry to the underground parts of the mining operation	3 months
Underground mining operations	The use of voltages in excess of 1 200 V in ERZ1 for electrical plant other than electrical plant and cables associated with longwall mining	3 months
Underground metalliferous mining operations	Newly devised method of mining a rise involving drill and blast and entry to the rise	1 month
Coal mining operations	The establishment or discontinuance of emplacement areas	3 months
Coal mining operations	Secondary workings: • pillar or pillar dimension reduction • longwall • miniwall • shortwall	3 months
Underground coal mining operations	Injection or application of polymeric material for ventilation or strata	24 hours

Applies to	High-risk activity	Length of time between notification and when activity can be undertaken
Underground coal mining operations	Driving an underground roadway with a width greater than 5.5 metres	7 days
Underground coal mining operations	Widening an existing underground roadway	7 days
Underground coal mining operations	Installation of a booster fan underground	3 months
Underground coal mining operations	Hot work in an ERZ1	1 month before first hot work covered by hot work approval system 24 hours before each occasion of hot work thereafter
Underground coal mining operations	Hot work in an NERZ	1 month before first hot work covered by hot work approval system 24 hours before each occasion of hot work thereafter
Underground coal mining operations	Live electrical work in an ERZ0 or ERZ1	7 days before first live electrical work covered by live electrical work approval system 24 hours before each occasion of live electrical work thereafter
Underground coal mining operations	The introduction for the first time of a vehicle with a non-flameproof (fire-protected) diesel engine to an NERZ	3 months
Underground coal mining operations	The use of voltages in excess of 4 000 V in an ERZ1 for electrical plant and cables associated with longwall mining	3 months
Underground coal mining operations	Barrier mining (meaning the mining of a barrier or protective pillar against the external boundaries of the workings of the mining operation, against any outcrop of the seam and between any underground workings and any open cut workings. The requirement to notify is triggered when the width of the barrier is proposed to be less than 40 metres between adjoining workings of adjacent mining operations)	3 months
Underground coal mining operations	• Multi-seam mining • Formations of small pillars • Shallow depth of cover • Mining under massive roof conditions • Mining under significant bodies of water	3 months

Schedule 10
Information to be given to WorkSafe in quarterly report

r 230

1 Description of mining operation

The following descriptive details for the mining operation:

(a) the name of the mine operator, the site senior executive, and the mine manager; and

(b) the location of the mining operation; and

(c) the business contact details of the mine operator, the site senior executive, and the mine manager; and

(d) the nature of the mining operation, including whether it is an opencast or underground mining operation or tunnelling operation, and the kind of material that is extracted.

2 Commodity processed

A description of the primary commodity processed at the mining operation during the reporting period.

3 Number of workers

The average number of mine workers who worked at the mining operation during the reporting period.

4 Number of hours worked

The total number of full-time equivalent, additional shift, and overtime hours worked at the mining operation during the reporting period.

5 Number of accidents

The total number of notifiable accidents required to be notified under section 25 of the Act and regulation 227 that occurred during the reporting period.

6 Number of lost-time injuries

The total number of incidents referred to in clause 5 that involved injury or disease of a mine worker that resulted in the inability of the worker to work for 1 day or more (not including the incident day) during the reporting period (whether the worker is rostered on that day or not).

7 Days lost from work

The total number of days (not including the incident day) lost from work by mine workers as a result of accidents referred to in clause 5 during the reporting period.

8 Number of alternative duties injuries

The total number of accidents referred to in clause 5 that involved injury or disease of a mine worker that resulted in the worker being on alternative duties during the reporting period.

9 Number of alternative duty days

The total number of days (not including the accident day) on which mine workers worked on alternative duties during the reporting period as a result of accidents referred to in clause 8.

10 Number of medical treatment injuries

(1) The total number of work-related injuries of mine workers that required medical treatment during the reporting period but did not require a day lost from work or alternative duties (other than the accident day).

(2) In subclause (1), **medical treatment** means the management or care of a patient, and—

(a) includes—

(i) the suturing of a wound; and

(ii) the treatment of fractures; and

(iii) the treatment of bruises by drainage of blood; and

(iv) the treatment of second- and third-degree burns; but

(b) does not include diagnostic procedures, observation, counselling, first aid, or therapeutic measures taken solely for preventative purposes.

11 Number of fatalities

The total number of fatalities that occurred during the reporting period as a result of an accident referred to in clause 5.

12 Reporting figures to specify employees of mine operator separately

Each amount required by clauses 3 to 11 to be reported must be supplied in a form showing the total amount separated in respect of the following 2 categories:

(a) mine workers employed by the mine operator; and

(b) mine workers other than employees of the mine operator.

Rebecca Kitteridge,
Clerk of the Executive Council.

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Reprints notes

1 General

This is a reprint of the Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013 that incorporates all the amendments to those regulations as at the date of the last amendment to them.

2 Legal status

Reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by any amendments to that enactment. Section 18 of the Legislation Act 2012 provides that this reprint, published in electronic form, has the status of an official version under section 17 of that Act. A printed version of the reprint produced directly from this official electronic version also has official status.

3 Editorial and format changes

Editorial and format changes to reprints are made using the powers under sections 24 to 26 of the Legislation Act 2012. See also http://www.pco.parliament.govt.nz/editorial-conventions/.

4 Amendments incorporated in this reprint

Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016 (LI 2016/17): regulation 232

Health and Safety in Employment (Mining Operations and Quarrying Operations) Amendment Regulations 2015 (LI 2015/292)

Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013 (SR 2013/483): regulation 237(3)

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